

BID DOCUMENT

Selection of Service provider/Agency for Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions

Part -I – TECHNICAL BID

NIT No- EdCIL/DES/RC ATL STEM ROBOTICS LAB/2024/001

Dated: 01.03.2024



EdCIL (India) Limited

A Govt. of India, Mini Ratna Category-I CPSE

EdCIL House, Plot No. 18A, Sector 16A,

Noida-201301 (U.P.) India

Tel: 0120 – 2512001-006, FAX: 0120-2515372

CIN No.:U74899DL1981GOI011882

Dated: 01.03.2024

This document is serially numbered from page number 01 to 129

DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Company or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an Agreement and is neither an offer nor invitation by the Company to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their financial offers (BIDs) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Company in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Company, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Company accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Company, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this BID Stage.

The Company also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. The Company may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Company is bound to select a Bidder or to appoint the Selected Bidder, as the case may be, for the Project and the Company reserves the right to reject all or any of the Bidders or BIDs without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its BID including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Company, site visits, investigations, studies or any other costs incurred in connection with or relating to its BID. All such costs and expenses will remain with the Bidder and the Company shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the BID, regardless of the conduct or outcome of the Bidding Process.

Table of Contents

Part -I – TECHNICAL BID	1
Notice Inviting Tender	5
CHAPTER- I.....	7
Offline and Online Bid Submission.....	7
CHAPTER-II.....	8
Term of Reference & Definitions	8
CHAPTER-III.....	9
Instructions for E-Tendering.....	9
CHAPTER-IV	12
Instruction to bidders	12
CHAPTER-V	18
Scope of Work	18
CHAPTER-VI.....	26
Eligibility and Bid Evaluation	26
Chapter-VII.....	32
Delivery Timeline & Payment terms.....	32
Chapter-VIII	34
Key Contract Terms.....	34
ANNEXURE-I.....	41
Technical Compliance Sheet	41
ANNEXURE-II.....	42
DECLARATION SHEET	42
ANNEXURE-III	43
Letter of undertaking	43
ANNEXURE-IV	44
UNDERTAKING OF NON-BLACKLISTING.....	44
ANNEXURE-V	45
Financial Statement.....	45
ANNEXURE-VI	46
List of Orders Completed During Last 3 years for Govt. Organizations /Autonomous Institutes in India	46
ANNEXURE-VII	47
Manufacturer’s Authorization Form (MAF)	47
ANNEXURE-VIII	48
Power of Attorney.....	48
ANNEXURE-IX	50
LETTER OF BID SUBMISSION	50

ANNEXURE – X	52
Bank Guarantee towards Bid Security (EMD).....	52
Annexure XI	54
PERFORMANCE BANK GUARANTEE FORMAT	54
ANNEXURE-XII	58
PROFORMA PRE CONTRACT INTEGRITY PACT	58
Annexure XIII.....	67
Contract Form	67
Annexure XIV	69
DELIVERY CERTIFICATE FORMAT	69
Annexure XV	70
INSTALLATION CERTIFICATE FORMAT.....	70
ANNEXURE- XVI	71
LIST OF AUTHORISED BANKS FOR BG.....	71
Annexure XVII.....	72
Equipment Specification Compliance	72
Annexure XVIII.....	73
Annexure XIX	74
EQUIPMENT SPECIFICATION	74
Annexure XX	117
TENDER CHECKLIST	117
Annexure XXI	120
Pre-Bid Query Format	120
Annexure XXII.....	121
Marking Scheme	121
PART-II: FINANCIAL BID	124
FINANCIAL BID SUBMISSION FORM.....	126
FORM: 1 SUMMARY OF FINANCIAL BID.....	127

Notice Inviting Tender

(e-Tendering mode)

EdCIL (INDIA) LIMITED
(A Govt. of India Mini Ratna CATEOGRY-I CPSE)
SECTOR 16A, NOIDA

N.I.T. No.: EdCIL/DES/RC ATL STEM ROBOTICS LAB/2024/001

Date: 01.03.2024

Name of work	Selection of Service provider/Agency for Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions
The Currency in which payment shall be made	Indian Rupees (INR)
Date of Issue/Publishing	01.03.2024
Document Download Start Date	01.03.2024
Pre-Bid Submission	07.03.2024
Pre-Bid meeting	07.03.2024 at 1200 Hrs
Document Download End Date and Time	21.03.2024
Last Date and Time for receipts of Bids	21.03.2024 till 1100 Hrs In case a Holiday is declared on the day of the event, the same will be held on the next working day at the same time & venue.
Date and Time of Opening of Technical Bids	21.03.2024 at 1130 Hrs
Earnest Money Deposit	Rs. 10,00,000 (Rupees Ten Lakhs Only) for each solution in form of Bank DD from a Nationalized Bank in India/ Demand Draft. Scanned copy to be uploaded with tender documents and original DD has to be submitted.
No. of Covers	02 (Two Packets)
Bid Validity days	180 days (From last date of opening of tender)
Performance Bank Guarantee (PBG)	3% of the contract value of the successful bidder. PBG is required to be submitted within 15 days from the date of issue of LOA.
Email Address	destenders@edcil.co.in , avinashkumar@edcil.co.in
Corporate Office	EdCIL House, 18-A, Sector 16A, Film City, Noida, Uttar Pradesh 201301

1. Tender document shall be downloaded from electronic tender portal link available at <http://www.tenderwizard.com/EDCIL>. Aspiring bidders who have not get registered in online portal should get register/enroll before participating. Interested bidders are advised to go through instructions provided at “Instructions to Bidders for e-tendering.”
2. No manual bids shall be accepted. All bids (both Technical and Financial) should be submitted in the online portal. However, all the credentials mentioned in clause 1.1 should be submitted offline, after submission of online bid
3. Bidders are advised to visit the EdCIL Website <http://www.tenderwizard.com/EDCIL> for getting them updated for information on this tender. Corrigendum and addendum may be issued on the changes required. Reply on pre-bid queries received by EdCIL shall be displayed on EdCIL website/e-tendering website. Bidders are advised to visit the webpage regularly and update themselves. The Pre-Bid queries, Corrigendum/addendum are the part of tender document and Bidders are supposed to upload the same accordingly, duly signed as per the guidelines given in the tender document.

Chief General Manager (DES)
EdCIL (India) Limited,
18 A, Sector-16A, Noida-201 301
Tel: 91-120-2512001 to 2512006

CHAPTER- I

Offline and Online Bid Submission

1.1 Offline Submissions:

The bidder is requested to submit the hardcopy of the below mentioned documents in a Sealed Envelope and the hardware equipment's to the under mentioned address before the start of Public Online Tender Opening Event.

The envelope shall bear name (the project name), the tender number and the words 'DO NOT OPEN BEFORE' (due date & time).

- I. Original copy of the EMD Security in the form of Demand Draft/BG.
- II. Original copy of the power-of-attorney.

Note: The Bidder should also upload the scanned copies of all the above-mentioned original documents as Bid-Annexure during Online Bid-Submission.

1.2 Online Submissions:

The Online bids (complete in all respect) must be uploaded online in **two** Envelope as explained below: -

Envelope – 1			
(Following documents to be provided as single PDF file)			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Annexure-I, II, III, IV, V, VI, VII, VIII, IX,X,XI, XII,XIII,XIV,XV,XVI,XVII, XVIII, XIX, XX, XXI,XXII	.PDF
2.		Demand Draft as EMD	
Envelope-2			
Sl. No.	Documents	Content	File Types
1.	Financial Bid	Price bid as per Financial Bid Submission Form.	.PDF

CHAPTER-II
Term of Reference & Definitions

Term	Definition
Supplier	Successful bidder
Authorized Signatory	The bidder's representative (explicitly, implicitly, or through conduct) with the powers to commit the authorizing organization to a binding agreement. Also called signing officer/ authority having the Power of Attorney from the Competent authority of the respective Bidding firm.
Bid	"Bid" means the response to this document presented in Single Packet, Technical Cum Commercial Bid and Financial Bid, which are supplied with necessary documents and forms as given in Annexure, complete in all respect adhering to the instructions and spirit of this document.
Tenderer/Bidder	"Tenderer" or "Bidder" means any individual/proprietor/ partnership firm/ agency/ company/ responding to Request for Proposal and who makes a Bid.
Contract	"The Contract" means the agreement entered into between EdCIL and the selected bidder(s) in terms of clauses mentioned
Day	"Day" means a working day as per rules of EdCIL.
EMD	Earnest Money Deposit
D.D	Demand Draft
EdCIL	EdCIL (India) Limited, Noida (A Govt. of India Undertaking)
TC	Tender Committee
PBG	Performance Bank Guarantee
Security Deposit (SD)	Amount of the Order Value deposited by the Bidder and retained till the successful completion of the project (as long as the bidder fulfils the contractual agreement).
Services	"Services" means the services to be delivered by the successful bidder and as required to run the project successfully as per the Contract.
RFP	" RFP " means the Request For Proposal
Order	"Order" shall mean the Letter of Award/Work order and its attachments and exhibits.
Consignee	"Consignee" shall mean EdCIL (India) Limited.
OEM	Original Equipment Manufacturer of Interactive Digital Board
Similar Project	Installation and commissioning of Interactive Digital Board Solution.

CHAPTER-III Instructions for E-Tendering

3.1 Instructions for Online Bid Submission:

- 1) E-tendering is new technology for conducting public procurement in a transparent and secured manner. As per Government of India's directives, EdCIL (India) Limited has adopted E-tendering.
- 2) For conducting electronic tendering, EdCIL (India) Limited has decided to use Electronic tender portal link available with detailed information on e-tendering process. This portal built using Electronic tender's software is referred to as www.tenderwizard.com/EDCIL.
- 3) The bidders are required to submit soft copies of their bids electronically on www.tenderwizard.com/EDCIL e-tendering website, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the Tender Wizard E-Tendering Portal, prepare their bids in accordance with the requirements and submitting their bids online on the Tender Wizard E-Tendering Portal.
- 4) The scope of work to be tendered is available in the complete bid documents which can be viewed /downloaded from Tender Wizard E-Tendering Portal of www.tenderwizard.com/EDCIL. Both Technical Bid and Financial Bid will be submitted concurrently duly digitally signed in the website www.tenderwizard.com/EDCIL. No claim shall be entertained on account of disruptions of internet service being used by bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snags.
- 5) All Corrigendum/Amendment/Corrections, if any, will be published on the website www.tenderwizard.com/EDCIL as well as on EdCIL's website.
- 6) It is mandatory for all the applicants to have class-III Digital Signature Certificate (in the name of person who will sign the bid document) from any of the licensed certifying agency (Bidders can see the list of licensed Certifying Agencies from the link www.cca.gov.in) to participate in e-Procurement of EDCIL.
- 7) It is mandatory for the bidders to get their Supplier registered with e-procurement portal of EDCIL, i.e. www.tenderwizard.com/EDCIL to have user ID & password by submitting a non-refundable annual registration charges as follows:

1	Registration charges for 1 year	Rs. 2000/-
---	---------------------------------	------------

(exclusive of taxes, levies, etc.) which can be paid online using the e-payment gateway to KEONICS through the portal address mentioned above. The registration so obtained by the prospective bidder shall be valid for one year from the date of its issue and shall be subsequently renewed.

- (i) Participant shall safely keep their User ID and password, which will be issued by the service provider i.e. KEONICS Ltd. upon registration, and which is necessary for e-tendering.
- (ii) Bidders are advised to change the password immediately on receipt of activation mail.
- (iii) Bidders shall not disclose their User ID as well as password and other material information relating to the e-tendering to any one and safeguard its secrecy.

- 8) Submit your tender well in advance by relevant documents along with copy of EMD of tender submission deadline on **Tender Wizard E-Tendering Portal** www.tenderwizard.com/EDCIL, as there could be last minute problems due to internet timeout, breakdown, etc.
- 9) Tenders should be submitted only through Tender Wizard E-Tendering Portal and obtain the Tender Acknowledgement copy as a proof of successful submission.
- 10) Vendors are requested to contact at Tender wizard Helpdesk for any information regarding E-tendering / training.

EdCIL / Tender Wizard E-Tendering Portal Helpdesk
Customer Support: 080-49352000 (Multiple Telephone lines) Emergency Mobile Numbers: 9686115318 / 8800496478 / 8800445981 (Please contact in case of emergency during non-working hours.)
To Tender Wizard harishkumar.kb@etenderwizard.com ambasa@etenderwizard.com arijeet@etenderwizard.com twhelpdesk963@gmail.com sandeep.g@etenderwizard.com & cc to: destenders@edcil.co.in & avinashkumar@edcil.co.in

3.2 PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum/addendum published on the portal before submitting their bids.
- 2) **Please go through the tender document carefully to understand the documents required to be submitted as part of the bid.** Please note the number of covers in which the bid documents have to be submitted, the number of documents (including the names and content of each of the document) that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and generally, these can be in PDF format. Bid documents may be scanned with 100dpi with black and white option.

3.3 SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission and complete all formalities of registration (at least two days in advance of the closing date) so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be sole responsible for any delay in uploading of bid within the stipulated time.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to pay EMD as applicable through demand draft/BG/direct bank transfer as per tender condition in favor of “**EdCIL (India) Ltd**” payable at Noida and enter details of the instruments. Original copies of demand draft/BG for EMD are required to be submitted.
- 4) A standard Financial Bid form has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the financial bid format is found to be modified by the bidder, the bid will be rejected.

- 5) The server time will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

3.4 ASSISTANCE TO BIDDERS

Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority. For any other tender related queries bidders are requested to contact on below given numbers/email.

EdCIL / Tender Wizard E-Tendering Portal Helpdesk
Customer Support: 080-49352000 (Multiple Telephone lines) Emergency Mobile Numbers: 9686115318 / 8800496478 / 8800445981 (Please contact in case of emergency during non-working hours.)
To Tender Wizard harishkumar.kb@etenderwizard.com ambasa@etenderwizard.com arijeet@etenderwizard.com twhelpdesk963@gmail.com sandeep.g@etenderwizard.com & cc to: destenders@edcil.co.in & kssahni@edcil.co.in

3.5 Offline Submissions: (AS PER TENDER REQUIREMENT)

The bidder is requested to submit documents as mentioned in the **Clause 1.1**

3.6 MINIMUM REQUIREMENTS AT BIDDER'S END

- Computer System having configuration with minimum Windows 7 or above, and Broadband connectivity
- Digital Certificate(s)

CHAPTER-IV

Instruction to bidders

4.1 Due date:

The tender has to be submitted before the due date and time. The offers received after the due date and time will not be considered.

4.2 Preparation of Bids

The offer/ bid shall be submitted in two bid systems (i.e.) Technical Bid and Financial Bid. The technical bid shall consist of all technical details along with commercial terms and conditions. Financial bid shall indicate component wise price for all the mentioned component in the technical/financial bid in the given format.

4.3 General

- i. All information supplied by bidders shall be treated as contractually binding on the bidders on successful award of the assignment by EdCIL on the basis of this tender.
- ii. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of the EdCIL. EdCIL may cancel this RFP at any time prior to a formal written contract being executed by or on behalf of EdCIL.
- iii. This RFP does not constitute an offer by EdCIL. The bidder's participation in this process may result in EdCIL selecting the bidder to engage towards execution of the contract.
- iv. The offer/bid should be inclusive of GST as per prevailing rates. However, the percentage of GST should be clearly indicated.
- v. The prices must be quoted in the Performa given in Commercial Bid, failing which the Bid would be treated as unresponsive. Any discount or any other offers affecting the package price must be mentioned in Financial Bid only. Discount or any other offers affecting the Package price mentioned at any other place of the bid other than Financial Bid will not be considered.
- vi. Price quoted by the bidder is including all transportation and installation etc. cost (if any).

4.4 Code of integrity

No official of the procuring entity or a Bidder shall act in contravention of the codes which includes:

- i. Prohibition of
 - a) Making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
 - b) Any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained, or an obligation avoided.

- c) Any collusion bid rigging or anti-competitive behaviour that may impair the transparency, fairness and the progress of the procurement process.
 - d) Improper use of information provided by the procuring entity to the Bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
 - e) Any financial or business transactions between the Bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly.
 - f) Any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
 - g) Obstruction of any investigation or auditing of a procurement process.
 - h) Making false declaration or providing false information for participation in a tender process or to secure a contract;
- ii. Disclosure of conflict of interest.
 - iii. Disclosure by the Bidder of any previous transgressions made in respect of the provisions of sub-clause (a) with any entity in any country during the last three years or of being debarred by any other procuring entity.

In case of any reported violations, the procuring entity, after giving a reasonable opportunity of being heard, concludes that a Bidder or prospective Bidder, as the case maybe, has contravened the code of integrity, may take appropriate measures.

4.5 Preparation to Bids:

- i. The Bidder is expected & deemed to have carefully examined all the instructions, guidelines, forms, requirements, appendices and other information along with all terms and condition and other formats of the bid. Failure to furnish all the necessary information as required by the bid or submission of a proposal not substantially responsive to all the requirements of the bid shall be at Bidder's own risk and may be liable for rejection.
- ii. The Bid and all associated correspondence shall be written in English and shall conform to prescribed formats. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidders. Any interlineations, erasures or over writings shall be valid only if they are authenticated by the authorized person signing the Bid.
- iii. The bid shall be uploaded on the website as per the instruction given in the RFP by the Bidder or duly authorized person(s) to bind the Bidder to the contract.
- iv. No bidder shall be allowed to modify, substitute, or withdraw the Bid after its submission.
- v. The bidder shall be responsible for all costs incurred in connection with participation in the Bid process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of bid, in providing any additional information required by EdCIL to facilitate the evaluation process and all such activities related to the bid process. EdCIL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding

- process.
- vi. Every page of the documents submitted by the bidder must be duly signed by the authorized signatory of the bidder along with the Organization seal.
 - vii. The bids submitted by fax/e-mail etc. shall not be accepted. No correspondence will be entertained on this matter.
 - viii. Failure to comply with the below requirements shall lead to the Bid rejection: -
 - a. Comply with all requirements as set out within this RFP.
 - b. Submission of the forms and other particulars as specified in this tender and respond to each element in the order as set out in this tender.
 - c. Non-submission of all supporting documentations specified in this RFP, corrigendum or any addendum issued.

4.6 Language of Proposal:

The proposal prepared by the firm and all correspondence and documents relating to the RFP exchanged by the bidder and the Client, shall be written in the English language, provided that any printed literature furnished by the firm may be written in another language so long as accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

4.7 Bidder's Authorized Signatory:

A Proposal should be accompanied by an appropriate board resolution or power of attorney in the name of an authorized signatory of the Bidder stating that he is authorized to execute documents and to undertake any activity associated with the Bidder's Proposal. Furthermore, the bid must also be submitted online after being digitally signed by an authorized representative of the bidding entity.

4.8 Cost of Bidding:

The bidder shall bear all costs associated with the preparation and submission of its bid, including cost of presentation for the purposes of clarification of the bid, if so desired by the client and client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. The bidder is expected to carefully examine all instructions, forms, terms and specifications in the bid document. Failure to furnish all information required in the bid document or submission of a bid not substantially responsive to the bid document in every respect will be at the bidder's risk and may result in the rejection of the bid.

4.9 EMD:

The bidder should enclose EMD of Rs. 10,00,000/- (Rupees Ten Lakhs only) for each solution in the form of Demand Draft drawn in favor of EdCIL (India) Limited and payable at NOIDA. In case EMD is submitted in the form of BG, the BG should be valid beyond 180 days after the bid validity date and should be as per the Annexure. Bidders registered with MSME and having valid registration certificate issued by NSIC/MSME are exempted for submission of EMD.

However, MSMEs are advised to submit their financial solvency certificate issued not earlier than 3 months from the last date of bid submission as per Annexure. The Bid sent without EMD will be considered as UNRESPONSIVE and will not be considered.

- i. The EMD will be returned without any interest to the unsuccessful bidders immediately after the signing of the agreement with the successful bidder.
- ii. EMD of the successful bidder will be released after the end of rate contract.
- iii. The EMD submitted shall be interest free and will be refundable to the bidders without any accrued interest on it.
- iv. The Earnest Money will be forfeited on account of one or more of the following reasons:
 - a) Earnest money will be forfeited if the bidder unilaterally withdraws the offer, or unilaterally amends, impairs or rescinds the offer within the period of its validity.
 - b) Bidder does not respond to requests for clarification of its bid.
 - c) Bidder fails to provide required information during the evaluation process or is found to be non-responsive.
 - d) In case of a successful bidder, the said bidder fails to sign the Agreement in time; or furnish Performance Bank Guarantee in time.
 - e) The Bank details for EMD preparation are

Name: EdCIL (India) Ltd

Bank Account No: 36830596465

IFSC Code: SBIN0000691

Bank Name: State Bank of India

Branch Name & Address: (00691) New Delhi Main Branch-11, Parliament Street,
New Delhi-110001

4.10 Acceptance/ Rejection of bids:

- I. EdCIL reserves the right to reject any or all offers without assigning any reason.
- II. EdCIL based on the requirement without assigning any reason to the Bidder may split work/Scope/Bid offer in stages or in parts according to the need of work for ease of execution of work.

4.11 Performance Security

- I. Performance security in the form of following against each work order to be submitted by the successful bidder:
 - i. FDR/DD from a Nationalized Bank in India.
 - ii. Performance Security should be form of Performance bank guarantee (PBG) from a Nationalized Bank in India as per Annexure
- II. Performance Security:
 - i. Whenever a work order is placed by the EdCIL, the concerned supplier would be required to submit a FDR / DD / PBG as per Annexure of an amount of 3% of the value of each work order issued within 15 working days of placing of order failing which appropriate action may be taken by EdCIL.
 - ii. This FDR / DD/ PBG shall remain valid for a period of 90 (Ninety) days

beyond the date of completion of warranty / AMC period.

- iii. In case the concerned “Supplier” fails to submit this PBG within the time stipulated, EdCIL at its discretion may cancel the work order for the “Supplier” without giving any notice and terminate the contract.

III. The successful bidder will not be entitled for any interest on the PBGs submitted.

IV. The EdCIL shall forfeit their respective PBG in full or part in the following cases:

- When the terms and conditions of contract are breached/ infringed.
- When contract is being terminated due to non-performance of the Supplier.
- EdCIL incurs any loss due to “Supplier’s” negligence in carrying out the project implementation as per the agreed terms & conditions.

V. PBG shall be returned to the successful bidder only after 90 days of the successful completion of the Contract. In case of any shortfall of any activity/ specification/ other terms and conditions of the contract, EdCIL reserves the right to recover damages or loss from the due the payment or by the encashment of PBG.

In case the work order is extended beyond the initial period the successful bidder is required to deposit Performance Bank Guarantee equivalent to 3% of contract value to EdCIL within 15 days from the date of receipt of extension order.

4.12 Amendment in Tender Document

- i. At any time up to the last date for receipt of RFP, EdCIL may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bid Document by an amendment. EdCIL shall not be responsible for any oversight or negligence on part of the bidders on the amendments to the terms and conditions of the tender document and notified through the website.
- ii. The corrigendum (if any) & any other related communication regarding this tender shall be posted only on the website and no separate communication either in writing or through email will be made to any interested/ participating bidders.
- iii. Any such corrigendum(s) or addendum(s) or clarification(s) shall be deemed to be incorporated into the tender document.

4.13 Clarifications on submitted bids

During process of evaluation of the Bids, EdCIL may, at its discretion, ask Bidders for clarifications on their bids. The Bidders are required to respond within the prescribed time frame given for submission of such clarification.

4.14 Validity of Bids

- i. Bids shall remain valid till 180 (one eighty) days from the date of submission of bids. EdCIL reserves the right to reject a proposal valid for a shorter period as nonresponsive.
- ii. In exceptional circumstances, EdCIL may solicit the bidder’s consent to extend the period of validity. The request and the response thereto shall be made in writing. Extension of validity period by the bidder should be unconditional. A bidder may refuse the request

without forfeiting the Earnest Money Deposit. A bidder granting the request will not be permitted to modify its Bid.

- iii. EdCIL reserves the right to annul the tender process, or to accept or reject any or all the bids in whole or part at any time without assigning any reasons and without incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for such decision.

4.15 Pre-Bid Conference

The bidder is requested to submit any queries in writing by e-mail so as to reach EdCIL . If required, EdCIL reserves the right to conduct the pre-bid meeting using virtual mode only.

- i. Queries relevant to the bid documents shall be addressed to the CGM (DES), EdCIL at destenders@edcil.co.in and avinashkumar@edcil.co.in
- ii. The queries should necessarily be submitted in the format as specified in the Annexure.
- iii. Any requests for clarifications post the indicated date and time may not be entertained by the Purchaser.
- iv. The officer notified by the Purchaser will endeavour to provide timely response to all queries. However, Purchaser makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does Purchaser undertake to answer all the queries that have been posed by the Bidders.
- v. At any time prior to the last date for receipt of bids, Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by a corrigendum.
- vi. The corrigendum (if any) & clarifications to the queries from all Bidders will be posted on the website www.edcilindia.co.in and on the e-tendering portal <http://www.tenderwizard.com/EDCIL> and may be emailed to all participants who have raised the queries.
- vii. Any such corrigendum shall be deemed to be incorporated into this RFP.
- viii. In order to provide prospective bidders reasonable time for taking the corrigendum(s) or addendum(s) into account, EdCIL, at its discretion, may extend the last date for the receipt of Bids.

4.16 Acceptance/ Rejection of bids

- i. EdCIL reserves the right to reject any or all offers without assigning any reason.
- ii. EdCIL based on the requirement without assigning any reason to the Bidder may split work/Scope/Bid offer in stages or in parts according to the need of work for ease of execution of work.
- iii. EdCIL reserves right to take decision according to requirement and no claim on whatsoever ground shall be entertained from the bidder.

CHAPTER-V

Scope of Work

5.1 ATL, STEM and Robotics Labs

The Government of India has setup the Atal Innovation Mission (AIM) at NITI Aayog. Realizing the need to create scientific temper and cultivate the spirit of curiosity and innovation among young minds, AIM proposes to support the establishment of a network of Atal Tinkering Laboratories (ATL). ATL is a workspace where young minds can give shape to their ideas through hands-on do-it-yourself mode and learn innovation skills.

ATL is an approach of Central government of India to create an environment of scientific temperament, innovation, creativity amongst Indian Students. It is a step towards a new India. ATL focuses on creating an environment that promotes the students to think, create, innovate new ideas, the equipment allows them to tinker, the curriculum enables them to structure their thinking in a challenging environment and enables to test themselves. ATL lab would teach students essential 21st-century skills which will help them in developing their professional and personal skills.

The objective is to foster curiosity, creativity, and imagination in young minds and inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing etc. Young children will get a chance to work with tools and equipment to understand what, how and why aspects of STEM (Science, Technology, Engineering, and Math) The objective of this scheme is to foster curiosity, creativity, and imagination in young minds and inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing etc. Young children will get a chance to work with tools and equipment to understand what, how and why aspects of STEM (Science, Technology, Engineering and Math).

STEM labs are educational spaces that encourage active learning and problem solving. In these STEM laboratories, students can develop their science, engineering and mathematics skills by using technology to create, collaborate and complete projects.

Robotics lab has been planned to expose the students to the general functioning of a robot. Students will be trained on few general robots and they will be allowed to implement their skills learned in other labs such as AI and control lab to design special purpose robots.

EdCIL recognizes a massive market opportunity to equip schools with Atal tinkering Labs, STEM Labs and Robotics Labs to leverage IT to improve quality of education in schools. The gaps in educational quality can be effectively bridged through these solutions and incorporating a blend of technology infrastructure and varied teaching learning methodologies.

The Atal tinkering Labs, STEM Labs and Robotics Labs can be established in schools (minimum Grade VI – X) managed by Government, local body or private trusts/society. An illustrative list of equipment and kits in ATL Labs, STEM labs and Robotics Lab is at Annexure XIX

The selected bidder/bidders will be responsible to supply and maintain ATL Labs, STEM labs and Robotics Lab. The scope of work primarily focuses on delivery and installation of ATL Labs, STEM labs and Robotics Lab which includes procurement, supply, installation, commission, operation & maintenance support of Lab. It includes ONE (01) Year Warranty Support Period from the date of commissioning of the Project.

- a) Supply of required hardware as per the specification mentioned below
- b) Installation of Hardware equipment in all identified schools
- c) Teacher training programs
- d) One year warranty support by OEM/bidder

The selected bidder would be responsible for designing and setting up the labs in accordance with the client's requirements. This may involve procuring and installing the necessary hardware, software, and furniture.

The selected bidder may also be responsible for developing and delivering training to the organization's staff on how to use the labs.

The selected bidder may be required to white label the products in the name of EdCIL/client on the case-to-case basis as per the requirement. Further, in case of mass procurement, the selected OEM/bidder has to make arrangements for creation of manufacturing facility in India.

5.2 Lab Setup

The following is a sample scope of work for setting up of each lab:

- **Design and planning:** The service provider will work with the organization to develop a design and plan for the lab. This will include determining the space requirements, selecting the appropriate hardware and software, and developing a layout for the lab.
- **Procurement and installation:** The service provider will procure and install all of the necessary hardware and software for the lab. As per annexures enclosed.
- **Training:** The service provider will provide training to the organization's staff on how to use the lab equipment and software. This will include training on how to develop and deploy applications.
- **Support:** The service provider will provide ongoing support to the organization, such as troubleshooting technical issues and providing software updates.

The scope of work for all other labs would be similar, but with specific requirements for each lab. In addition to the general scope of work outlined above, the client may also have specific requirements for each lab. The labs may require specific hardware and modules for activities. The lab may require tools and supplies for making and building things.

The selected bidder should work with the client to ensure that the labs meet all of their specific requirements.

5.3 Insurance & Transportation

- The selected Bidder shall be responsible for acquiring comprehensive insurance including transit insurance, liability insurance and any other insurance as required for all the equipment till the delivery, installation and commissioning at the respective end client location/school level (whichever applicable).
- For delivery of goods at the end client's location, the insurance should be obtained by the Supplier in an amount equal to 110% of the value of the goods from "supplier location to

end client location" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance should be valid for a period of not less than 3 months after the completion of installation and commissioning. If orders placed on CIF/CIP basis, the insurance should be up to End Client place.

- The Supplier should make all arrangements towards safe and complete delivery at End Clients Location. Such responsibility on part of the supplier will include taking care of insurance, freight, octroi, state level permits etc. as applicable.
- The supplier should also take care of transit insurance, comprehensive insurance or any other insurance as required which may have direct bearing on the delivery of the items / equipment's at End Clients location.
- It is the total responsibility of supplier to complete all formalities to transit of goods from the place of dispatch to End Clients Location.
- The bidder should ensure that no person can engage in the business of a common carrier unless he has granted a certificate of registration to do so for supply of items at End Clients Location.
- The transportation of goods through unregistered common carrier is illegal. The bidder should ensure to comply the carriage by latest Road Act and any other relevant.
- The supplier will keep EdCIL informed about various stages of deliveries & installation.
- All costs related to insurance shall be borne by the selected Bidder for goods supplied under the Agreement against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery etc. A copy of Insurance Certificate should be provided to EdCIL.

5.4 Unloading and Unpacking

Unless specified otherwise in the purchase order, Unloading and storage of the same at the designated place should be undertaken by the successful bidder. The Unpacking of the materials should also be arranged by successful bidder.

5.5 Pre-Delivery Inspection

- The pre-delivery inspection of the goods should be carried out (at the location provided by the supplier) by the EdCIL officials to check whether the goods are in conformity with the technical specifications attached to the purchase order. A team including the representative of the end client would inspect the material if required.
- The inspection test will be conducted by the EdCIL officials, their consultant or other such person nominated by the EdCIL and by the end client (if required), in the presence of supplier's representatives. The inspection will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There should not be any additional charges for carrying out inspection test. No malfunction, partial or complete failure of any part of the equipment is expected to occur.
- Successful conduct and inspection of the acceptance test for the installed goods and equipment should also be the responsibility and at the cost of the Supplier.
- The time taken for pre-dispatch inspection is inclusive of the scheduled completion time of the delivery & installation of the equipments. Only the line item certified by the EdCIL official should be dispatched to the end client.
- If any of the equipment supplied by the Tenderer is found to be substandard,

refurbished, unmerchantable or not in accordance with the description/specification or otherwise faulty, the EdCIL official or the official from end client (if required) will have the right to reject the equipment or its part. All damaged or unapproved goods should be returned at suppliers cost and risk and the incidental expenses incurred thereon should be recovered from the supplier.

5.6 Delivery, Installation and commissioning

- Delivery, Installation and commissioning of the “proposed labs” at the school level or the desired location should be made within a maximum of 60 calendar days from the date of placement of purchase order.
- The successful bidder to provide absolute supply and Commissioningschedule within 7 days from the receipt of Purchase Order.
- Within 24 hours of dispatch, the supplier should notify the EdCIL by cable/telex/ fax/ e-mail the full details of the shipment.
- Till the EdCIL/end client takes over/ receives the equipment/ items, the supplier should be responsible to keep the same in safe custody and the charges (if any) to be borne by the successful bidder.
- As part of commissioning of the delivered equipment, the selected Bidder shall depute its technically qualified representative(s) to facilitate the conduct of inspection of 100% of the delivered quantity in presence of theEdCIL Official(s) and End Client (s), if required. This inspection shall start immediately after delivery of the equipment’s at the centralized location.
- After completion of the inspection, all the equipment shall be repackaged. Rejected equipment if any shall be returned back to the authorized representative of the selected Bidder. The numbers of such rejected equipment shall be struck off from the Delivery Receipt/Acceptance Receipt and from the Invoice claimed by the bidder.
- The equipment to be commissioned for a specific school shall be decided by EdCIL and End client. The power supply and internet connectivity for commissioning will be arranged by End Client. Until the equipment is handed over to respective school authorities/end client location, selected bidder will be solely responsible for the security of all the equipment.
- The selected bidder shall carry out for delivery of all the Lab’s to the school level/end client location/location provided by EdCIL and its subsequent installation in the classrooms

5.7 Training & handholding

The selected bidder will be required provide training to client as below:

- Provide hands-on training on the hardware, software application such that users are conversant with the functionalities, features and processes built in the solution.
- Training materials, applications, user manual and completion reports
- Submit attendance record of the trainers (in hard copy) along with the session plan for the day.
- Content and Manual: Bidder are required to provide Contents and student manuals for the above products will be provided along with the curriculum.
- Deploy adequate training resources, deployed trainers should be fluent in speaking Hindi, English.
- Ensure training and handholding of the school teachers/headmaster so they can further train the other teachers accordingly.
- Develop a training manual for each of the Lab activities for the teachers which should act as a ready reckoner for reference by the teachers at school level.
- Ensure to train minimum three teachers of each school of current year in a centralized (state/district location).

S.No	Description	Quantity
1	5 days physical Training of Teachers on training components & hardware equipment's (3 Teachers per School)	Batches (1 batch consists of 40 Teachers)

5.8 Final Acceptance Sign off from End Client

Against the Delivery cum Installation and Commissioning of the Labs in each school, the selected Bidder shall get a Delivery cum Installation and Commissioning Sign-off receipt from the school. In all likelihood, the Installation and Commissioning Sign-off receipt for a school shall be provided to the selected Bidder on the same day of successful commissioning of the equipment for that school. The damaged/defective equipment, if any shall be taken back by the selected Bidder.

5.9 Site Preparation

- I. The supplier should inform to the Consignee about the site preparation, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the End Client should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter.
- II. The supplier should visit the End clients Location and see the site where the equipment is to be installed and should offer his advice and render assistance to the End Client in the preparation of the site and other pre installation requirements.

5.10 Warranty and Support Services

- The Selected Bidder is required to provide a standard onsite warranty support for a period of ONE (01) Year Warranty. The warranty would ensure that the goods/ articles would continue to conform to the standards and specifications as prescribed in the RFP for the entire duration of the Contract.
- All infrastructure procured by the selected bidder for this Project must adhere to the minimum requirements.
- The period of warranty for all equipment shall commence after project commissioning sign-off date from the end client.
- Selected bidder shall be required to set up a centralized Helpdesk support at client's location for issues and complaints from various stakeholders and resolving them in time bound manner.
- The selected bidder shall deploy dedicated manpower including helpdesk/Tech support, field engineers & coordinator / operators who would provide online support to stakeholders & department management support after establishment & handholding of lab.

All infrastructure procured by the Selected Bidder for this Project is ready and functional before commencing any kind of services

5.11 Duration

Duration of the rate contract is for 1 year. The same can be extended based on satisfactory performance for one year at a time to maximum period of 2 years. However, the financials would be negotiated after every one year/at the time of renewal of contract based on the volume of business awarded or expected and any other related factors.

5.12 Liquidated Damages

- Delay in delivery: In case of non/partial supply of the equipment within the stipulated period, penalty @ 1% of the total contract value for every week of delay on the defaulted amount shall be applicable, subject to maximum of 10% of the contract value. After reaching the penalty to maximum, EdCIL will have the right to take appropriate disciplinary actions including termination of the contract.
Note: Applicable GST shall be charged extra on LD amount.
- Purchaser reserves its right to recover these amounts by any mode such as adjusting from any payments to be made by Purchaser to the Bidder.

5.13 Price Revision and Technology Advancement

- I. The supplier empanelled through this RFP shall be asked to resubmit the prices for all the items every year in sealed bids.
- II. The prices quoted should either be the same or can be lower. No upward revision in prices shall be accepted.
- III. No conditional bid shall be accepted and the price format (to be provided by EdCIL) should be strictly adhered to.
- IV. If there is technology advancement and reasonable price reduction happens on any of the line items as per commercial bid then it should be passed on to EDCIL and end buyers.

5.14 Indemnity

- I. The selected Bidder shall execute and furnish to EdCIL a Deed of Indemnity in favor of “EdCIL” in a form and manner acceptable to EdCIL, indemnifying EdCIL from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Agreement period out of:
 - a) Any negligence or wrongful act or omission by the selected Bidder or the selected Bidder’s Team in connection with or incidental to this Agreement; or
 - b) A breach of any of the terms of selected Bidder Bid as agreed, the RFP and this Agreement by the Bidder or the selected Bidder’s Team.
- II. The indemnity shall be to the extent of 100% in favor of EdCIL.

5.15 Documentations to be produced by the successful bidder during project

- I. Original Delivery cum Installation and Commissioning certificate issued by the client with sign and stamp or acknowledgement of delivery.
- II. Warranty Certificate in original of all the items supplied to client.
- III. Bidder is required to provide the school/studio wise colored photographs and videos of 1-minute duration (in soft copy) of every school when the product is installed within 30 days from the date of commissioning of the project. The video must capture the functionality of the device(s) in presence of any official/teacher.
- IV. Authorization letter in favor of System Integrator from the OEM in case of service is provided by the System Integrator/Distributor

5.16 SLA and Penalties

SLA for Project Timelines

Sl. No.	Measurement	Target	Penalty
1.	Pre-Delivery Inspection	Within 15 days of issuance of LOI/LOA	Penalty of 1% for first week, 2% per week for every subsequent week subject to a maximum of 10% of the relevant Milestone payment.
2.	Delivery of equipment at school level	Within 30 days of issuance of LOI/LOA	
3.	Commissioning of equipment at school level	Within 60 days of issuance of LOI/LOA	
4.	Capacity Building/Teacher Training of Teachers	Within 60 days of issuance of LOI/LOA	

*days= working days

SLA for Service Support

Sl. No.	Type of Incident	Resolution Time { C: Date of reporting of complaint }	Penalty
1.	Incident 1 (I-1): Repair of any Hardware items, its component and its software.	Within 2 (two) working days of reporting of complaint. $C+2=T0$	No penalty
		$T0+2=T1$	0.5% of the value of the hardware for every unresolved incident.
		$T1+2=T2$	1% of the value of the hardware for every unresolved incident.
		$T2+15=T3$	2% of the value of the hardware for every unresolved incident.
		$>T3$	Replacement of the faulty hardware with a new hardware along with penalty of 10% of the value of the hardware for every unresolved incident on monthly basis.
2.	Incident 2 (I-2): Replacement of faulty part/component of any hardware	Within 4 (four) working days of reporting of complaint. $C+4=T0$	No penalty

		$T0+4=T1$	2% of the value of the hardware for every unresolved incident.
		$T1+10=T2$	5% of the value of the hardware for every unresolved incident
		$>T2$	Replacement of the faulty hardware with a new hardware along with penalty of 10% of the value of the hardware for every unresolved incident on monthly basis.

Note:

- a) If the total number of incidents reported in any month exceeds the 20% of number of units supplied then an additional penalty of 10% of the cost of the affected hardware shall be imposed. Further, while signing of Contract Agreement SLA may be redefined as per the project requirement.
- b) The selected Bidder shall submit the monthly complaint & resolution reports as requested by the EdCIL as defined in the reporting requirements of scope of work.
- c) In case any complaint cannot be resolved onsite then a backup unit has to be provided until the original unit is fixed and reinstalled.
- d) There has to be 24*7 toll free number for all complaint and support requests by OEM/bidder in minimum two languages (a. English b. Hindi).
- e) Any mishappening with students or teachers due to faulty performance (Example: Overheating, explosion etc. of electronics products) of products will penalized on back to back basis.
- f) Applicable GST shall be charged extra over the penalty amount.

CHAPTER-VI

Eligibility and Bid Evaluation

6.1 Bid Opening

- I. EdCIL will constitute a committee to evaluate the Bids submitted by Bidders. A three-stage process, as explained hereinafter, will be adopted for evaluation of Bids. No correspondence will be entertained outside the process of evaluation with the Committee.
- II. Only two persons for each participating bidder's shall be allowed to attend the Bid opening meetings. The representatives of the bidders are advised to carry the identity card or a letter of authority from the bidders to establish their identity for attending the bid opening.
- III. Committee will examine the Proposals to determine whether they are complete, whether the documents have been properly signed and the proposals are generally in order. Any proposals found to be non-responsive for any reason or not meeting any criteria specified in this RFP, will be rejected by the EDCIL and shall not be included for further consideration. Initial proposal scrutiny will be held and the proposals may be treated as non-responsive, if they are:
 - a. Not submitted in the format as specified in this RFP document;
 - b. Received without the Power of Attorney;
 - c. Found with suppression of details;
 - d. Submitted with incomplete information;
 - e. Submitted without the documents required under this RFP;
 - f. Non-compliant to any of the clauses mentioned in this RFP;
 - g. Lesser validity period than that prescribed in this RFP
- IV. Committee may, at its discretion, call for additional information from the bidder(s) through email/fax/telephone/meeting or any other mode of communication. Such information has to be supplied within the set-out time frame as provided by Committee, otherwise Committee shall make its own reasonable assumptions at the total risk and cost of the bidder and the bid may lead to rejection. Seeking clarifications cannot be treated as acceptance of the bid. For verification of information submitted by the bidders, the committee may visit bidder's offices at its own cost. The bidders shall provide all the necessary documents, samples and reference information as desired by the committee.

6.2 Bid Evaluation Process

Evaluation criteria will be based on evaluation of the bidder meeting the Pre – qualification, evaluation through marking of technical bid and subsequently evaluation of financial bid. The evaluation shall consist of following phases:

- a. Pre-Qualification Evaluation
- b. Evaluation of Technical bid
- c. Evaluation of Financial bid

Pre-Qualification Evaluation

- I. The evaluation of the bidders will be carried out as per the pre-qualification criteria defined in the tender document. Only the bidders who fulfil the given pre-qualification Criteria shall be eligible for next round of evaluation i.e. Technical evaluation. Nonconforming bids will be rejected and will not be eligible for any further processing. The pre-qualification criteria is defined in clause 6.3 of the chapter.
- II. Notwithstanding anything stated above, the Consignee reserves the right to assess bidder's capability and capacity to perform the contract, should circumstances warrant such an assessment in the overall interest of the EdCIL or project.
- III. Technical bids will also be reviewed for compliance with the necessary instructions, terms and conditions, scope of work, formats etc. as outlined in this tender.
- IV. EdCIL reserves the right to physically verify the office or any document provided by the bidder in the way EdCIL desires.

Evaluation of Technical bid

- I. The evaluation of the bidders will be carried out by the Committee as per the Technical Evaluation criteria defined in the RFP document. Only the bidders who qualify in the technical evaluation round shall be eligible for next round of evaluation i.e. Financial Bid Opening. Bids of the bidders, who do not qualify in the technical evaluations stage, will be rejected and will not be eligible for any further processing.
- II. The bidder who meet all the eligibility criteria will be called for the presentation and shall be further evaluated on the basis of the marking scheme (Annexure XXII).

Note: The marking will be done separately for each solution

- III. The bidder who scores minimum 75 marks in the technical evaluation shall be declared as technically qualified bidder and those shall be notified for opening of their financial bid.

$$T_s = 100 \times T / T_h$$

T_s = Technical Score,

T = Technical score obtained by the bidder

T_h = Highest Technical Score among all the bidders for a solution

Evaluation of Financial bid

- I. On fulfilment of Pre- qualification criteria and technical compliance financial bids of technically qualified bidders will be evaluated. Bids of the bidders, who do not qualify in the technical evaluations stage, will be rejected and will not be eligible for any further processing.
- II. Financial bids would be opened only for those Bidders, who secure the qualifying marks in the Technical Evaluation as explained above.
- III. The bidder should quote for all components of the solution(s) in accordance to the pre-qualification and technical qualification criteria.
- IV. Financial Evaluation shall be done on the basis of total price of each solution separately.
- V. Price quoted by the bidder is including all transportation and installation etc. cost (if any).
- VI. Any conditional commercial bid will lead to disqualification of the entire bid and forfeiture of the EMD.
- VII. It is mandatory for the bidder to fulfil all the Pre-qualification criteria and to be technically qualified to being considered for opening of their Financial Bid and evaluation thereof.

- VIII. The financial bids shall be opened in presence of representatives of technically qualified bidders, who may be present. EdCIL shall inform the date, place and time for opening of financial bids.
- IX. Financial bid will be inspected to ensure conformance to the format provided in the tender document.
- X. The bidder shall quote the prices as per the price format given in the Part B - Commercial Bid of this RFP.
- XI. Final Proposal shall be given financial scoring as below, the financial scoring for each solution shall be calculated separately:
- XII. The bidder who has quoted the lowest price will be assigned a score of 100 in the financial bid. The other bidders will be allotted score relative to the score of bidders with the lowest quote as below:
- $$F_s = 100 * F_l / F$$
- F_s = The financial score of the Financial Proposal being evaluated.
 F_l = The Lowest Financial Price among all the bidders.
 F = The quoted price of Financial Proposal under consideration.

QCBS Evaluation

- I. QCBS Evaluation of bid will be done separately for all the solutions.
- II. L1 will be declared separately for all the solutions.
- III. The score of technical proposal including presentation would be given 70% weightage, and the financial proposal would be given 30% weightage. The Normalized weighted combined score of the Technical bid including presentation (T_s), and Financial proposals (F_s) shall be used to rank the bidders on the basis of formula given as below:

$$\text{Combined Score} = 70 \% * T_s + 30 \% * F_s$$

- IV. Bidder with highest Combined Score for each solution shall be declared selected Bidder. In the event that two or more Bidders/organizations with same final score for any solution, the Bidder with more marks in technical evaluation shall be selected.
- V. A contract will be signed with each successful bidder for all the solutions separately which will be based on the rates identified in the financial bid (subject to downward revision by the successful bidder from time to time). In case if a bidder scores highest combined score in two or more solutions, then EdCIL will sign single contract with that bidder which consist of two or more solutions.
- VI. Failure to abide the RFP conditions may result into forfeiture of EMD & PBG.

6.3 Pre-Qualification Criteria

S.N.	PQ Criteria	Description of the Criteria	Documents to be Submitted
1	Legal Entity	The Bidder should be registered under Companies Act, 1956 and 2013 in India and should have been in operation in India for at least last 8 years as on the date of submission of the bid. Consortium of companies/ firms is not allowed. For MSME/NSIC registered bidder: The bidder should be a company	<ul style="list-style-type: none"> Valid copy of certificate of incorporation and registration certificates. Copy of GST registration. Copies of relevant certificates of registration income tax PAN

		registered in India under Companies Act 1956 or 2013 or Proprietorship /Partnership Firm with their registered office in India in operation for at least 5 years preceding the bid due date.	
2	Turnover	<p>Bidder must have minimum average annual Turnover of 10 crores during the last three financial year i.e., 2020-21, 2021-22 and 2022-23 with net profit and positive net-worth.</p> <p>For MSME/NSIC registered bidder Bidder must have minimum average annual Turnover of 8 crores during the last three financial year i.e., 2020-21, 2021-22 and 2022-23 with net profit and positive net-worth.</p>	<ul style="list-style-type: none"> • Audited Profit and Loss Statement and Balance sheets for FY 2020-21,2021-22 & 2022-23 • Auditor Certificate clearly specifying the turnover along with Profit and Net-worth during the FY 2020-21,2021-22 & 2022-23. • MSME Bidder should produce valid registration certificate from NSIC/MSME.
3	Blacklisting certificate	The BIDDER as well as any of its subsidiaries / affiliates should not have been blacklisted by the Central Government, State Governments, PSU or any Government Corporations in India, preceding bid due date.	Copy of undertaking signed by authorized signatory of bidder should be submitted with the technical bid. Format enclosed as Annexure IV
3	Technical Capability	<p>For Solution 1 & Solution 2 Bidder having experience in supply & execution of Atal Tinkering Labs/ STEM in government schools only of India during last 3 FY i.e., 2020-21, 2021-22 and 2022-23:</p> <ol style="list-style-type: none"> 1. Executed three works of similar nature costing not less than the value of 4 Crore. 2. Executed two works of similar nature costing not less than the value of 5 Crore. 3. Executed one work of similar nature costing not less than the value of 8 Crore. <p>For Solution 3 Bidder having experience in supply & execution of Robotics Lab in government schools only of India during last 3 FY:</p> <ol style="list-style-type: none"> 1. Executed two works of similar nature costing not less than the 	Copy of work order/MoU and completion certificate from client /email from client on project completion/Installation Certificate

		<p>value of 4 Crore.</p> <p>2. Executed one works of similar nature costing not less than the value of 5 Crore.</p> <p><u>For MSME/ NSIC registered bidder</u></p> <p>For Solution 1 & Solution 2 Bidder having experience in supply & execution of Atal Tinkering Labs/ STEM in government schools only of India during last 3 FY:</p> <p>1. Executed three works of similar nature costing not less than the value of 3 Crore.</p> <p>2. Executed two works of similar nature costing not less than the value of 4 Crore.</p> <p>3. Executed one work of similar nature costing not less than the value of 7 Crore.</p> <p>For Solution 3 Bidder having experience in supply & execution of Robotics Labin government schools only of India during last 3 FY:</p> <p>1. Executed two works of similar nature costing not less than the value of 3 Crore.</p> <p>2. Executed one works of similar nature costing not less than the value of 4 Crore.</p>	
4	Bidder Quality Certification	The bidder should be an ISO 9001:2015, ISO 20001 & ISO 27001 certified company.	Copies of the valid certificates.
5	Scrutiny of kits & equipment's validation	Bidder is required to submit samples for scrutiny and samples	Sample of kits in sealed box to be submitted by or before last date of tender submission date.
6	Power of Attorney	A Power of Attorney / Board Resolution in the name of the person signing of the tender.	Original Power of Attorney / Board Resolution Copy on a non-judicial stamp paper as per Annexure VIII
7	Insolvency/ Bankruptcy	The BIDDER must not have been declared insolvent/ bankrupt or should not have filed for insolvency/ bankruptcy or in the process of being declared bankrupt before any designated authority preceding bid due date	A Self Declaration on the Letter head of the BIDDER regarding BIDDER Company not being bankrupt or in process of being declared insolvent / bankrupt as on date as per Annexure XVIII.

- EdCIL reserves the right to verify the work order submitted by prospective bidder from issuing department.
- Documents must be provided in support of the following otherwise bids will be summarily rejected.
- Technical bids will also be reviewed for compliance with the necessary Instructions, terms and conditions, scope of work, formats etc. as outlined in this tender.
- Notwithstanding anything stated above, the EdCIL reserves the right to assess bidder's capability and capacity to perform the contract, should circumstances warrant such an assessment in the overall interest of the EdCIL.

6.4 Contract Finalization and Award

The Purchaser shall reserve the right to discuss with the Bidder(s) whose Proposal has been ranked best value bid based on Technical and Commercial Evaluation to the proposed Project, as per the guidance provided by Central Vigilance Commission (CVC).

6.5 Signing of Contract

- I. The successful bidder will sign the contract with EdCIL within 15 working days of the release of work order.
- II. At the time of execution of contract, successful bidder shall submit Rs 10,00,000 (Rs Ten lakh) per solution as security deposit in the form of DD/NEFT/FDR. The security deposit will be retained for complete duration of contract. Further, successful bidder will be required to renew the validity of security deposit as and when required. This FDR / DD/ PBG shall remain valid for a period of 90 (Ninety) days beyond the contract duration.
- III. The contract will be signed as per Annexure XIII format.
- IV. After signing of the contract, no variation in or modification of the terms of the contract shall be made except by mutual written amendment signed by both the parties.

6.6 Work Order

- I. Whenever the Client needs any of solution 1,2 or 3, a requirement containing a list of line items or solution (as identified in commercial bid) would be generated. Then the work order will be issued to Selected bidder of that solution directly on the quoted price.
- II. Failure to provide services as per requirement by bidder may result into forfeiture of EMD, PBG & termination of the contract.
- III. The EdCIL reserves the right to place a work order of any time duration.
- IV. EdCIL will intimate the Supplier in writing regarding any extension in the work order. Extension in the contract would not lead to extension of any of the in-force work orders.
- V. Contract termination shall automatically lead to termination or expiry of all work orders which were issued based on the contract.
- VI. The expiry of the contract does not lead to the expiry of the work order. The supplier must complete the obligation of the work order as per the signed contract until the time duration which will be mentioned in the work order.

Chapter-VII Delivery Timeline & Payment terms

7.1 Delivery Schedule

- I. The Supplier should Provide the project plan after getting the work order from EdCIL. Also, the supplier should inform the deviation from the project plan with proper reason to EdCIL.
- II. Bidder shall make all the arrangements for the timely delivery and installation of equipment for successful completion of project. No other incidental/TA/DA/any other such expenditure shall be paid by EdCIL.

T= Time at which work order is issued; AT= Acceptance of LOA Time; BT=Bank Guarantee Submission Time; DIT= Delivery and Installation Time:

S. No.	Timelines (In Calendar Days)	Details
1.	AT = T + 7 days.	Acceptance of LOA / work order should be within 7 days from the issue of work order.
2.	BT = T + 15 days.	Bank Guarantee should be submitted within 15 days from the issue of work order.
3.	DIT = T + 90 days.	Delivery, Installation and Commissioning of the equipment should be completed within 90 days from the date of issue of work order.

Note: In case of different timelines from the End Client, EdCIL may ask the bidder to implement the project with the timelines provided by the End Client and Bidder has to adhere to the provided timelines. (Note: Timelines may change as per the requirement of the End Client).

- III. In case of any miss happening/ damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. EdCIL or End Client will not be liable to any type of losses in any form.

7.2 Payment Terms:

- I. Payment will be processed after proper quality checks and signing of handing over certificates by concerned authorities.
- II. No advance payment shall be released to the Supplier.
- III. Payment to the Supplier shall be made in Indian Rupees through account payee cheque / NEFT / RTGS, Payments will be done only on the back-to- back basis on receipt of the related payment/funds from the end client. Subject to submission of following documents:
 - PDI Certificate issued by the nominated inspection committee (signed and stamped)

as applicable.

- Delivery Certificates in original duly Signed and Stamped by the authorized official (Teacher / Principal / Head Master / Head Mistress / Warden) of the end client. (Or as per the requirement of the end client).
- Installation and commissioning report in original duly Signed and Stamped by the authorized official (Teacher / Principal / Head Master / Head Mistress / Warden) of the end client. (Or as per the requirement of the end client).
- E-way Bills of all the equipments.
- Suppliers/Manufacturer's warranty certificate of all the items after the installation of equipment.
- If requested from end client, confirmation from the end client for the successful delivery and installation of the equipment at the specified location.
- Letter of successful performance during warranty period signed and stamped by officials of MoETEST/EdCIL.

IV. However, 10% of the total project cost including taxes will be withheld for warranty on site comprehensive warranty for three years. The payment for the same will be done in following manner:

- i. 5% of the total project cost will be released after the completion of the 2nd year and submission of AMC report.
- ii. Balance 5% of the total project cost will be released after the completion of the 3rd year and submission of AMC report.

V. The payment terms may vary according to the order received by EdCIL from their respective clients.

- The invoices shall be billed to GST No. of EdCIL and should be based on work orders (or any amendments thereof) issued by EdCIL.
- Payment will be done on back-to-back basis on receipt of related payment/funds from the end client.
- Warranty start will be reckoned from the date of commissioning as approved by the end client.
- The invoices must be based on work orders (or any amendments thereof) issued by the EdCIL.
- SLA Breaches (if any) provided by the client may also result in deduction of the payment against the work order.
- Geo-tagged school wise colored photographs of every delivery location when the product is delivered and when the product is installed provide location wise colored photographs and videos of 1 – minute duration (in soft copy) separately. The video must capture the functionality of the device(s) in presence of any school/concerned official/teacher.
- Payments shall be subject to deductions / damages / penalties of any amount for which the Supplier is liable under the contract. Further, all payments shall be made subject to deduction of TDS (Tax Deduction at Source) at the rate applicable from time to time as per the Income-Tax Act, 1961 and any other applicable deductions/ taxes.

Chapter-VIII

Key Contract Terms

8.1 Arbitration

- All disputes or differences, whatsoever, arising between the parties out of or relating to the interpretation, meaning and operation or effect of this contract or the breach thereof, shall be resolved through mutual consultation and negotiation.
- Any dispute not resolved by mutual consultations shall be settled through arbitration by arbitrator duly appointed by the designated officer of EdCIL India Limited. The award of the said Arbitrator shall be final and binding on both parties. The place of the Arbitration shall be at Delhi. It is the terms of this Contract that in the event of such arbitrator to whom the matter is originally referred, being transferred or on vacating his office, being unable to arbitrate for the aforesaid reason, his successor shall be appointed as Sole Arbitrator by the aforesaid authority and the new incumbent shall resume arbitrator proceedings from the stage where his predecessor has left. The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award subject to the aforesaid, the Arbitration and Conciliation Act, 1996, shall apply to the aforesaid arbitration proceedings. The performance under this Contract shall not stop for any reason whatsoever during the said dispute / proceedings, unless the Supplier / party are specifically directed by EdCIL India Limited to desist from working in this behalf. The award of Arbitrator so appointed shall be final and binding upon the parties hereto. Arbitration cost shall be borne by the selected bidder.

8.2 Non-Disclosure

The supplier and their personnel shall not, either during the term or after expiration of this contract, disclose any proprietary or confidential information relating to the services, contract, terms, prices or the client's business or operations details without the prior written consent of the client.

8.3 Risk Purchase Clause

In event of failure of completion of work within the stipulated delivery schedule, the EdCIL has all the right to purchase the item/equipment from the other source on the total risk and cost of the successful bidder under risk purchase clause.

8.4 Compensation

In consideration of the Services hereunder, EdCIL India Limited shall pay BIDDER the fees and expenses ("Charges") as specified in Commercial. All amounts payable to BIDDER are exclusive of any Taxes. EdCIL India Limited shall be entitled to deduct from applicable payments to BIDDER, any tax on BIDDER' income deductible at source at the rates applicable as per the provisions of Income Tax Act 1961 and provide BIDDER with evidence or certificate of payment of such tax to the taxing authorities. BIDDER shall submit invoices to EdCIL India Limited in accordance with the payment schedule in Commercial of this document. Payment stages are available at Chapter-VII.

8.5 Representations and Warranties

Bidder warrants that the Services will be provided in a skilful and workman like manner and

in conformity with the scope described in Scope of Work Proposed Functional Scope of this document. Notwithstanding the aforesaid, any Services which are provided by bidder free of charge or are otherwise not chargeable shall be provided on an 'AS IS' basis without any warranties whatsoever. Each Party represents, warrants and covenants to the other that: (i) it is duly organized and validly existing and in good standing under the laws of the state of its incorporation or formation; (ii) it has the full right and authority to enter into and that this Agreement constitutes a legal, valid and binding obligation; and (iii) its execution, delivery and performance of this Agreement does not and will not conflict with, or constitute a breach or default under, its charter of organization, or any contract or other instrument to which it is a party.

8.6 Limitation of Liability

Neither EdCIL India Limited nor the bidder shall be liable to the other for any special, indirect, incidental, consequential (including loss of revenue, data and/or profit), exemplary or punitive damages, whether in contract, tort or other theories of law, even if the Party has been advised of the possibility of such damages. The total cumulative liability of either party under this Agreement shall not exceed in aggregate value of the contract. The limitation on any Party's liability herein shall not apply to liability for damages, resulting from (i) the wilful misconduct; (ii) breach of the use terms in respect of use of bidder Application System; and (iii) breach of confidentiality obligations. Bidder shall not be held liable for any delay or failure in its obligations, if and to the extent such delay or failure has resulted from a delay or failure by or on behalf of EdCIL India Limited to perform any of EdCIL India Limited's obligations.

8.7 Confidential Information

Each Party (the "Receiving Party") acknowledges and agrees to maintain the confidentiality of Confidential Information (as hereafter defined) provided by the other Party (the "Disclosing Party") hereunder. The Receiving Party shall not disclose or disseminate the Disclosing Party's Confidential Information to any person other than those employees, agents, contractors, subcontractors and licensees of the Receiving Party, or its affiliates, who have a need to know it in order to assist the Receiving Party in performing its obligations, or to permit the Receiving Party to exercise its rights under this Agreement. In addition, the receiving Party (i) shall take all such steps to prevent unauthorized access to the Disclosing Party's Confidential Information, as it takes to protect its own confidential or proprietary information of a similar nature, which steps shall in no event be less than a reasonable standard of care, (ii) shall not use the Disclosing Party's Confidential Information, or authorize other persons or entities to use the Disclosing Party's Confidential Information, for any purposes other than in connection with performing its obligations or exercising its rights hereunder, and (iii) shall require all persons and entities who are provided access to the Disclosing Party's Confidential Information, to execute confidentiality or non-disclosure agreements containing provisions substantially similar to those set forth in this Clause. The provisions of this Clause respecting Confidential Information shall not apply to the extent, but only to the extent, that such Confidential Information is: (a) already known to the Receiving Party free of any restriction at the time it is obtained from the Disclosing Party, (b) subsequently learned from an independent third party free of any restriction and without breach of this provision; (c) is or becomes publicly available through no wrongful act of the Receiving Party or any third party; (d) is independently developed by the Receiving Party without reference to or use of any Confidential Information of the Disclosing Party; or (e) is required to be disclosed pursuant to an applicable law, rule, regulation, government requirement or court order, or the rules of any stock exchange. Upon the Disclosing Party's written request at any time, or following the completion or termination of this Agreement, the Receiving Party shall promptly return to the Disclosing Party, or

destroy, all Confidential Information of the Disclosing Party provided under or in connection with this Agreement, including all copies, portions and summaries thereof.

8.8 Force Majeure

The selected Bidder should not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delays in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

- i. For purposes of this Clause, "Force Majeure" means an event beyond the control of the bidder and not involving the bidder's fault or negligence and not foreseeable. Such events shall include, but are not limited to, acts of the EdCIL either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- ii. If a Force Majeure situation arises, the bidder should promptly notify the EdCIL in writing of such conditions and the cause thereof. Unless otherwise directed by the EdCIL in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and should seek all reasonable alternative means for performance not prevented by the Force Majeure event.

8.9 Prices

- i. The price should be quoted in per unit (with breakup) and must include all packing and delivery charges. The offer/bid should be inclusive of taxes and duties, which will be paid as applicable. However, the percentage of taxes and duties should be clearly indicated. The inter se merit position of the bids however shall be decided based on the composite price of the product including taxes, transportation, Warranty with all other incidental expenses indicated.
- ii. The prices must be quoted in the Performa given in Financial Bid failing which the Bid would be treated as unresponsive. Any discount or any other offers affecting the package price must be mentioned in Financial Bid only. Discount or any other offers affecting the Package price mentioned at any other place of the bid other than Financial Bid will not be considered.
- iii. The price quoted should be inclusive of one year on site comprehensive warranty including basic training and demonstration to the end client.

8.10 Notices

For the purpose of all notices, the following should be the Address :

Chief General Manager (DES)

EdCIL (India) Limited,

18 A, Sector-16A,

Noida-201301, Uttar Pradesh Tel: 91-120-2512001 to 2512006

Supplier: (To be filled in by the supplier)

- Any notice given by one party to the other pursuant to this contract/order should be sent to the other party in writing or e-mail and confirmed in writing from the other party's address.
- A notice should be effective when delivered or on the notice's effective date, whichever is later.

8.11 Supplier Integrity

The selected bidder is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

8.12 Governing Language

The contract should be written in English language. English language version of the Contract should govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, should be written in the same language.

8.13 Applicable Law

The Contract should be interpreted in accordance with the laws of the Union of India and all disputes should be subject to place of jurisdiction. The place of jurisdiction would be New Delhi (Delhi) INDIA.

8.14 Right to Use Defective Goods

- i. If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, EdCIL should have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the EdCIL's operation.
- ii. Replacement of Goods broken, damaged or short: In the event of any material or part thereof found broken or damaged or received short during transit or during installation or Commissioning or testing at site, before commissioning in service the suppliers should replace the same free of cost. However, EdCIL may recover amount equivalent to the cost of such damaged / broken / short supplied materials and will repay when actual replacement is given.
- iii. Substitution and Wrong Supplies: Unauthorized substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or rejected goods should be returned to the supplier at their own cost and risk.

8.15 Taxes

Selected Bidder should be entirely responsible for all taxes, duties, road permits, etc., incurred until delivery of the contracted Goods/Services. EdCIL shall only make payment towards the GST Charged in the invoice other than that no other taxes/ duties/ Charges will be paid.

8.16 Defective Equipment

- i. If any of the equipment supplied by the Bidder is found to be substandard, refurbished, unmerchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment should be refunded by the Bidder with 18% interest if payments for such equipment have already been made.
- ii. All damaged or unapproved goods should be returned at suppliers' cost and risk and the

incidental expenses incurred thereon should be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, should be replaced on receipt of the intimation from EdCIL/end client at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, EdCIL (INDIA) LTD may consider "Banning" the supplier.

8.17 Termination for Default

The EdCIL should, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- i. If the Supplier fails to complete the work within the period(s) specified in the order, or within any extension thereof granted by the EdCIL; or
- ii. If the Supplier fails to perform any other obligation(s) under the Contract.
- iii. If the Supplier, in the judgment of the EdCIL has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- iv. For the purpose of this Clause:
 - **“Corrupt practice”** means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
 - **“Fraudulent practice”** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid- prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;”
 - In the event the EdCIL terminates the Contract in whole or in part, the EdCIL should procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier should be liable to the EdCIL for any excess costs for such similar Goods or Services. However, the Supplier should continue the performance of the Contract to the extent not terminated.

8.18 Tender Conditions with Implementation of Insolvency and Bankruptcy Code, 2016 (IBC)

- i. It will be the responsibility of the bidder to inform EdCIL within 15 days from the date of order of insolvency resolution process or liquidation or bankruptcy proceeding passed by the Adjudicating Authority namely, National Company Law Tribunal (NCLT) or Debt Recovery Tribunal (DRT) under the Code.
- ii. If bidder refuses or fails to share the information regarding their status of insolvency resolution process or liquidation or bankruptcy proceeding in their bid or at any later stage, their offer is liable to be rejected by EdCIL.
- iii. EdCIL reserves the right to cancel/terminate the contract without any liability on the part of EdCIL immediately on the commencement of insolvency resolution process or liquidation or bankruptcy proceeding of any party under the contract.

- iv. EdCIL reserves its right to evaluate and finalise the bid without considering the bid of any party undergoing insolvency resolution processor liquidation or bankruptcy proceeding under the Code regardless of the stage of tendering.

A declaration / undertaking shall be submitted by the bidder in the Format (as per ANNEXURE-XVIII) along with techno commercial bid.

8.19 Guide lines for Evaluation & Short closure:

After opening of price bid but before award, if a bidder(s) is(are) rejected due to initiation of insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016 (Code), tender will be finalized ignoring such bid(s).

During execution of contract, if insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016 (Code) is initiated against a contractor and EdCIL shall have the right to short close the contract.

8.20 Disputes and Jurisdiction

Any legal disputes arising out of any breach of contract pertaining to this tender should be settled in the court of competent jurisdiction located within New Delhi.

8.21 Compliance certificate

This certificate must be provided on their letter head indicating conformity to the technical specifications.

8.22 Award of Contract

- i. EdCIL reserves the right to accept or reject any proposal and to annul the bidding process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the Bidders. In case of annulment, all proposals submitted and specifically, proposal securities shall be promptly returned to the Bidder.
- ii. EdCIL has the right to review at any time prior to award of contract that the pre-qualification criteria, are still being met by the Bidder whose offer has been determined as first rank. A proposal shall be rejected if the eligibility criteria, are no longer met by the Bidder whose offer has been determined as first rank.

8.23 User List

Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items have been supplied must be provided.

8.24 Product Life

The Models offered should strictly conform to the specifications given in the product literature and these models should be supported for a minimum period of 1 year including warranty period. The Models proposed/ marked for withdrawal from the market and the models under quality testing should not be offered.

In addition to the above, if any additional/ enhanced configuration is suggested in view of technological changes, it may be furnished as optional feature with/without cost duly explaining the additional utility of the offered model in both the technical offer document as well as Commercial Offer document. However, the basic quote should be confined only to the

configuration/ model offered for.

8.25 Acknowledgement

It is hereby acknowledged that we have gone through all the conditions mentioned above and we agree to abide by them.

8.26 Price Information

Price information shall not be there in Technical Bid.

8.27 Rates in Figures and Words

Rates Quoted by the Bidder in tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the bidder in figures and in words tally but the amount is not worked out correctly, the rates quoted by the Bidder will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s) and amount blank, it will be presumed that the Bidder has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

In the case of any tender where unit rate appear unrealistic, such tender will be considered as unbalanced and in case the tender is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.

8.28 Fall Clause

The Bidder undertakes that the rates quoted by him in the financial bid for each item is not higher than the rate offered by him for similar work to any other PSU/ AB/ Govt. Department. In case, if the price charged by bidder is more, EdCIL will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier, provided all condition of the work including time, scope, logistics, specifications and country are same.

Technical Compliance Sheet

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder Name: _____

Designation: _____

Organization Name: _____

Contact No.: _____

Seal of the Company: _____

ANNEXURE-II

<< Organization Letter Head >>

DECLARATION SHEET

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, we will support on regular basis with technology / product updates and extend support for the warranty.

We, further specifically certify that our organization has not been Black Listed/ De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking as on date.	NAME & ADDRESS of the VENDOR/ MANUFACTURER/ AGENT
1 Phone	
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN Number	
7 PAN Number	
(In case of on-line payment of EMD) 8. UTR No. (For EMD)	
9. Kindly provide bank details of the bidder in the following format: a) Name of the Bank	
b) Account Number	
c) Kindly attach scanned copy of one Cheque book page to enable us to return the EMD to unsuccessful	

(Signature of the Tenderer)
Seal of the Company

ANNEXURE-III

Letter of undertaking
(ON THE LETTER HEAD OF THE BIDDER)

To
Chief General Manager (DES)
EdCIL (India) Limited
(EdCIL) EdCIL House, 18 A,
Sector-16 A, NOIDA – 201301 (U.P.)

Sir,

SUBJECT- Selection of Service provider/Agency for Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions

This bears reference to EdCIL Bid No. **EdCIL/DES/ RC ATL STEM ROBOTICS LAB/2024/001** dated

We, hereby, accept all the terms and conditions for submitting bid as mentioned in this Bid Document.

We hereby certify that no terms and conditions have been stipulated by us in the Technical Bid.

We warrant that the services do not violate or infringe upon any patent, copyright, trade secret or other property right of any other person or other entity. We agree that we shall not prevent EdCIL from any claim or demand, action or proceeding, directly or indirectly resulting from or arising out of any breach or alleged breach of any of the terms & conditions of bid document and contract.

The above document is executed on at (place)_____and we accept that if anything out of the information provided by us is found wrong, our bid/ work order shall be liable for rejection.

Thanking you,

Yours faithfully,

Date:

Place:

ANNEXURE-IV

UNDERTAKING OF NON-BLACKLISTING

This is to confirm that we M/s _____ (give full address) have not been declared neither **failed to perform on any Agreement, nor have been expelled from any project or Agreement nor any Agreement terminated** for breach by the us (Agency) in any of the government department and public sector undertaking /enterprise or by any other Client in India, in last five year before release of advertisement.

If the above information found false at any stage after the placement of Work Order / Agreement, EdCIL (India) Limited (EdCIL), 18-A, Sector 16-A, Noida will have full right to cancel the Contact and forfeit the Performance Guarantee. All the direct and indirect cost related to the cancellation of the order will be borne by us besides any legal action by EdCIL which shall be deemed fit at that point of time.

Authorized Signatory

Note: The undertaking regarding the non-blacklisting of firm is to be submitted on a non-judicial stamp paper of Rs. 100/- (Rupees Hundred only).

ANNEXURE-V

Financial Statement

Sl. No.	Financial Year	Annual Turn over	Net Worth
1.	2020-21		
2.	2021-22		
3.	2022-23		
Total			
Average of FY- 2020-21, 2021-22 and 2022-23			

Note: Certificate from Statutory Auditor/ Chartered Accountant certifying balance sheet only for all three years to be attached.

**Signature with Seal of the Chartered
Accountant**

Signature with Seal of the Bidder

ANNEXURE-VI

**List of Orders Completed During Last 3 years for Govt. Organizations /Autonomous Institutes in
India**

Bid No.:

Date:

Name of the Firm:

S.No	Name of Client	Name of the Project and brief description	Value (Exclusive Tax)	Date of award	Date of Completion	Current Status and duration of maintenance period for ongoing project	Name of Contact Person and other details
1.							
2.							
3.							
4.							

Signature of Bidder

(Signature with seal)

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

ANNEXURE-VII

Manufacturer's Authorization Form (MAF)
{to be filled by OEM}

To
Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)

Subject: OEM Authorization Letter for Request for Proposal (RFP) for Selection of service provider for Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions.

Dear Sir,

We, who are established and reputable having factories / development facilities at (address of factory / facility) do hereby authorize _____ to submit a Bid, and accept the Purchase Order against the above Bid Invitation.

We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation. We further undertake that we will support the supplier will all related spares and maintenance during the entire contract period.

We duly authorize the said firm to act on our behalf in fulfilling all installations, technical support and maintenance obligations required by the Project.

Yours faithfully,

Name:

Seal:

Note: This letter of authority should be on the letterhead of the OEM

ANNEXURE-VIII

Power of Attorney

Know all men by these presents, we..... (name of firm and address of the registered office) do hereby constitute, nominate appoint and authorize Mr./Ms..... son/daughter/wife of ... and presently residing at....., who is presently employed with /retained by us and holding position of.....as our true and lawful attorney

(Hereinafter referred to as the “Authorized Representative”) to do in our name and on our behalf, all such acts, deeds and things as necessary or required in connection with or incidental to submission of our proposal for and selection as the <project title> for the <name of the client> project, proposed to be developed by the (the “client”) including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre bid and other conferences and providing information /responses to the client, representing us in all matters before the Client, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the client in all matter in connection with or relating to or arising out of our Proposal for the said project /or upon award thereof to us till the entering into of the Agreement with the client.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawful done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this power and Attorney and that all acts, and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

[IN WITNESS WHEREOF WE..... THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON

THIS DAY OF..... 2024.

For.....(Name and registered address of client)

(Signature, name, designation, and address)

Witness:

1. (Signature, name and address)
2. (Signature, name and address)

Notarized

Accepted

.....

(Signature, name, designation, and address of the attorney)

Notes:

1. The mode of the execution of the power of Attorney shall be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under seal affixed in accordance with the required procedure.
2. Wherever required, the applicant should submit for verification the extract of the charter documents and other documents such as a resolution/Power of Attorney in favor of the person executing this Power of Attorney for delegation of power hereunder on behalf of the applicant.
3. For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power and Attorney is being issued. However, the Power of Attorney provided by the applicants from countries that have signed The Hague Legislation Convention, 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

ANNEXURE-IX

LETTER OF BID SUBMISSION

To
Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A,
Sector- 16A,
NOIDA- 201 301 (U.P)

SUBJECT: Selection of service provider for Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions.

-Submission of Bid -

Sir,

Having examined the details given in Press Notice, Notice Inviting Bid & Bid Document for the above work, I/we hereby submit the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed form _____ and accompanying statements are true and correct.
2. I / we certify that we have not changed/alterd any word/sentence or any figure in number/s or words appearing the original tender document uploaded by EdCIL on the designated web page for e-tendering. In case, if a fraudulent activity is found at any stage between tender submission to final closure of the tender/contract, our candidature/bid/contract shall be immediately cancelled and EMD/Performance security/ security deposit along with the due amount towards the work executed or advance shall be forfeited. EdCIL will not entertain any claim or entertain any reason for this intentional act. EdCIL may go for the legal action against the bidder for recovering any one or all damages caused to EdCIL or its client on this account.
3. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
4. I/We submit the requisite **certified solvency certificate** and authorize the EdCIL to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize EdCIL to approach individuals, employers, firms and corporation to verify our competency and general reputation.

5. I/We submit the following **certificates** in support of our suitability, technical knowledge and capability for having successfully completed the following works:

S.No.	Name of Work	Certificate From

6. Earnest Money Deposit amounting to **Rs.10,00,000** for each solution in the form of DD/Pay Order No. ----- dated ----- issued by -- Bank is submitted.
7. Demand Draft of Rs. (NIL)/- towards Bid document cost.: If applicable

Enclosures:

Date of Submission:

ANNEXURE – X

Bank Guarantee towards Bid Security (EMD)

Bank Guarantee No. _____

**To
Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)**

Whereas (here in after called "the Bidder") has submitted its Bid dated(Date) in response to the RFP No: for SELECTION OF SERVICE PROVIDER FOR “Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions (here in after called "theBid")

KNOW ALL MEN by these presents that We..... having our registered office at..... (hereinafter called the "Bank") are bound onto EdCIL India Limited, Noida (hereinafter called "EdCIL") in the sum of.....for which payment well and truly to be made to the said EdCIL itself, its successors and assignees by these presents.

The conditions of these obligations are:

1. If the Bidder withdraws its Bid during the period of Bid validity or
2. If the Bidder, having been notified of the acceptance of its Bid by EdCIL

during the period of Bid validity:

1. fails or refuses to execute the Agreement form if required; or
2. fails or refuses to furnish the performance security, in accordance with the Bid requirement

We undertake to pay EdCIL up to the above amount upon receipt of its first written demand, without EdCIL having to substantiate its demand, provided that in its demand EdCIL will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to (Date) and any demand in respect thereof should reach the Bank not later than the above date.

Dated: The Day of for

(Indicate the name of bank)

Signature of Banks Authorized official

Witness (Name) _____

Designation with Code No. -----

1. Full Address-----

2.

Annexure XI

Name of the Bank: _____

To

**Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)**

PERFORMANCE BANK GUARANTEE FORMAT

In consideration of the Chief General Manager EdCIL acting through _____ (Designation & address of Contract Signing Authority), (hereinafter called “The EdCIL (India) Ltd”) having agreed under the terms and conditions of agreement/ Contract Acceptance letter No. _____

Dt : _____ Made between _____ (Designation & address of contract signing Authority) and _____ (here in after called “the said Agency” for the work _____ (here in after called “the said agreement”) having agreed for submission of a irrevocable Bank Guarantee Bond for _____ ₹ (₹ _____ only) as a performance security Guarantee from the Agency for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We _____ (Indicate the name of the Bank) hereinafter referred to as the Bank, undertake to pay to the EdCIL (India) Ltd an amount not exceeding ₹ _____ (₹ _____ only) on demand by the EdCIL (India) Ltd.
2. We _____ (Indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demer merely on a demand from the EdCIL (India) Ltd through the CGM(DES), EdCIL, (India) Ltd. Noida or _____ (Designation & Address of contract signing authority), stating that the amount claimed is due by way of

- (b) Provided always that we _____(indicate the name of the Bank) unconditionally undertakes to renew this guarantee or to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case shall be on being called upon to do so by the EdCIL (India) Ltd. If the guarantee is not renewed or the period extended on demand, we _____(indicate the name of the Bank) shall pay the EdCIL (India) Ltd the full amount of guarantee on demand and without demur.
6. We _____(indicate the name of Bank) further agree with the EdCIL (India) Ltd that the EdCIL (India) Ltd shall have the fullest liberty without our consent and without effecting in any manner out of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers exercisable by the EdCIL (India) Ltd against the said Agency and to forbear or enforce any of the terms and conditions of the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Agency for any bearance act or omission on the part of the EdCIL (India) Ltd or any indulgence by the EdCIL (India) Ltd to the said Agency for by any such matter or thing whatsoever under the law relating to sureties for the said reservation would relive us from the liability.
 7. This guarantee will not be discharged by any change in the constitution of the Bank or the Agency.
 8. We, _____(indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the EdCIL (India) Ltd in writing.
 9. This guarantee shall be valid up to (Date of Completion plus 90 Days). Unless extended on demand by EdCIL (India) Ltd. Notwithstanding anything to the contrary contained hereinbefore, our liability under this guarantee is restricted to Rs..... (Rs.....only) unless a demand under this guarantee is made on us in writing on or before..... we shall be discharged from our liabilities under this guarantee thereafter.

Dated:	The	Day of	For
		(Indicate the name of bank)	
		Signature of Banks Authorized official	

Witness		(Name) _____	
		Designation with Code No. -----	
1		Full Address-----	
2.			

ANNEXURE-XII

**PROFORMA PRE CONTRACT INTEGRITY
PACT**

GENERAL

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on day of the month of 2024, between, on one hand, acting through Shri/Smt. _____, Designation, EdCIL (India) Limited (hereinafter called the “BUYER”/ “EdCIL” interchangeably, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part

AND

M/s _____ represented by Shri _____, Chief Executive Officer (hereinafter called the “BIDDER/Seller” which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the EdCIL proposes to procure services towards **“Selection of service provider for “Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions”**.

For its clients and BIDDER/Seller is willing to offer the said services and related items as referred to in the Bid document No. **EdCIL/DES/RC ATL STEM ROBOTICS/2024/001** Dated ..2024.

WHEREAS the BIDDER is a private company /public company / Government undertaking / partnership / registered expert agency, constituted in accordance with the relevant law in the matter and the EdCIL is a Public Sector Undertaking under Ministry of Human Resource Development performing its functions.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

Enabling the EdCIL to obtain the desired services as referred to in the Bid document No. **EdCIL/DES/RC ATL STEM ROBOTICS LAB/2024/001** dated2024 at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement and Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the EdCIL will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

1. Commitments of the EdCIL

- 1.1 The EdCIL undertakes that no official of the EdCIL, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the EdCIL will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the EdCIL with full and verifiable facts and the

same is prima facie found to be correct by the EdCIL, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings shall be initiated by the EdCIL and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the EdCIL the proceedings under the contract would not be stalled.

3. Commitments of Bidders

The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:

- 3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the EdCIL, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the EdCIL or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract with the Government.
- 3.3 Bidders shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.

- 3.4 BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5 The BIDDER further confirms and declares to the EdCIL that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the EdCIL or any of its functionaries, whether officially or unofficially to the award to the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation, as the case shall be for satisfactory performance of the proposed terms of Bidder.
- 3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the EdCIL or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the EdCIL as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the EdCIL, or alternatively, if any relative of an officer of the EdCIL has financial interest / stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of Bid.

3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the EdCIL.

4. PREVIOUS TRANSGRESSION

4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this integrity pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the bid process.

4.2 The BIDDER agrees that if it makes incorrect statement on this subject. BIDDER can be disqualified from the Bid process or the contract, if already awarded, can be terminated for such reason.

5. EARNEST MONEY DEPOSIT

5.1 While submitting Technical bid, the BIDDER shall deposit an amount of Rs. 10,00,000 for each solution as Earnest Money with the EdCIL through Account Payee Bank Demand Draft/ BG in favor of EdCIL (India) Limited.

5.2 The instrument for Security Deposit made shall be valid up to the specified period and the bidder shall be liable to keep the said instrument valid for such extended period as the case shall be for satisfactory performance of the terms of Bidder above referred till the complete conclusion of the contractual obligations to the complete satisfaction of

both the BIDDER and the EdCIL, including O&M period, whichever is later.

- 5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the corresponding Contract governing such agreement that the provisions of Sanctions for Violation shall be applicable for encashment of Performance Bank Guarantee deposited towards forfeiture of said amount in case of a decision by the EdCIL to forfeit the same without assigning any reason for imposing such sanction.
- 5.4 No interest shall be payable by the EdCIL to the BIDDER on Earnest Money Deposit for the period of its currency.

6. SANCTIONS FOR VIOLATIONS

- 6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the EdCIL to take all or any one of the following actions, wherever required:
- To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit / Performance Bond (Bank Guarantee) (after the contract is signed) shall stand forfeited either fully or partially, as decided by the EdCIL and the BUYER (EdCIL) shall not be required to assign any reason therefore.
 - To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
 - To recover all sums already paid by the EdCIL, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR as the case shall be. If any outstanding payment is

due to the BIDDER from the EdCIL in connection with any other contract for any other stores or on any account whatsoever and by whatsoever name called, such outstanding payment could also be utilized to recover the aforesaid sum and interest thereto.

- To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the EdCIL, along with interest.
- To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the EdCIL resulting from such cancellation/rescission and the EdCIL shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which shall be further extended at the discretion of the EdCIL.
- To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the EdCIL with the BIDDER, the same shall not be opened.
- Forfeiture by way of encashment of Performance Bond in case of a decision by the EdCIL to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.2 The EdCIL will be entitled to take all or any of the actions mentioned at Para 6.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of any offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

6.3 The decision of the EdCIL to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, an Independent Monitor(s) shall be appointed by EdCIL, in case of breach of the provisions of the pact.

7. INDEPENDENT MONITORS

- 7.1 An Independent monitor (s) shall be appointed by EdCIL, in case of breach of the provisions of the pact.
- 7.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 7.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 7.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project / procurement, including minutes of meetings.
- 7.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the EdCIL.
- 7.6 The BIDDER(s) accept that the Monitor has the right to access without restriction to all Project documentation of the EdCIL including that provided b the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Sub-bidders. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Sub- bidder(s) with confidentiality.
- 7.7 The EdCIL will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 7.8 The Monitor will submit a written report to the designated Authority of BUYER/Secretary in the Department/within 8 to 10 weeks from the date of reference or intimation to him by the EdCIL / BIDDER and, shall the occasion arise, submit proposals for correcting problematic situations.

8. FACILITATION OF INVESTIGATION

In case of any allegation of violation of any provisions of this Pact or payment of commission, the EdCIL or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

9. LAW AND PLACE OF JURISDICTION

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the EdCIL.

10. OTHER LEGAL ACTIONS

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that shall follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

11. VALIDITY

11.1 The validity of this Integrity Pact shall be governed by the terms of the Bid No. EdCIL/DES/RC ATL STEM ROBOTICS LAB/2024/001 towards complete execution of the contract to the satisfaction of both the EdCIL and the BIDDER/Seller, including O&M period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract awarding the Bidder with successful bidder.

11.2 Shall one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

12. The parties hereby sign this Integrity Pact at _____ on _____.

EdCIL (India) Limited		BIDDER
Name of the Officer	:	CHIEF
		EXECUTIVE OFFICER

Designation:

Witness:

Witness:

1. _____

2. _____

(The Pre-Contract Integrity Pact shall be modified based in line with the conditions of the Bid Documents)

Annexure XIII

Contract Form

THIS AGREEMENT made the day of 2024 between EdCIL (Hereinafter called "the Purchaser") of the one part and (Name & address of Supplier) (Hereinafter called "the Supplier") of the other part:

WHEREAS the Purchase is desirous that certain Goods and ancillary services viz. (Brief Description of Goods and Services) and has accepted a bid by the Supplier for the supply of those goods and services in the sum of (Contract Prize in words and Figures) (Hereinafter called "the Contract Price")

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and constructed as part of this Agreement, viz.,
 - [a] The Price Schedule submitted by the Bidder;
 - [b] The Schedule of Requirements;
 - [c] The Terms & Conditions
 - [d] The EdCIL's Notification of Award/ Purchase Order
3. In consideration of the payments to be made by the EdCIL to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the EdCIL to provide the goods and services and to remedy defects herein in conformity in all respects with the provisions of the Contract.
4. The EdCIL hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract prices or such other sum as shall become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the goods and services, which shall be supplied/ provided by the Supplier, are as under:

S. No.	Brief Description of Goods & Services	Quantity to be supplied	Unit Price	Total Price	Delivery Terms
--------	---------------------------------------	-------------------------	------------	-------------	----------------

TOTAL VALUE:

EdCIL/DES/RC ATL STEM ROBOTICS LAB/2024/001

DELIVERY SCHEDULE:

IN WITNESS where of the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the
said..... (For the EdCIL)

in the presence of

Signed, Sealed and Delivered by the
said.....(For the Supplier)

in the presence of

Annexure XIV

DELIVERY CERTIFICATE FORMAT

The items mentioned as per details given below, have been physically verified by way of opening the cartons/packing and verifying the machine/ equipment supplied and model of the Equipment/Items. It is certified and acknowledged that the same have been received at this Institution in good condition.

Sl. No.	Address	School Name	Description of Equipment	Serial No of Device	Make	Model	Quantity
1							

Please make appropriate column, as per requirement.

The items as per details given below was/were received in damaged conditions and therefore are not acceptable. This damaged goods / equipment have been returned to the supplier and supplier is required to supply the new equipment in lieu of damaged one.

Details of the Goods/Equipment received in objectionable condition

Sl. No.	Addresses	School Name	Description of Equipment	Serial No of Device	Make	Model	Quantity
1							

Signature of Supplier or its representative

Name: _____

Designation: _____

Date: _____

Rubber Seal: _____

Signature of School Representative

Name: _____

Designation: _____

Date: _____

Rubber Seal of the institution

Verified by EdCIL representative

Signature: _____

Name: _____

Designation: _____

Date : _____

INSTALLATION CERTIFICATE FORMAT

1. The following goods/equipment, supplied by the Supplier at this school have been successfully installed and commissioned by the Supplier.

Sl. No.	Zone	School Name	Description of Equipment	Serial No of Device	Make	Model	Quantity
1							

Note:

- i. In case of need, a fresh form on these lines shall be prepared & issued by EdCIL.
Two copies of this certificate to be provided to Supplier.
Serial Number of devices has to be recorded in the certificate.
- ii. The Supplier has fulfilled his contractual obligations related to supply & installation of the
- Projector mounted to the wall mount arrangement
 - Wifi Dongle Connected to the HDMI and USB port of the Projector
 - Projector is switched on and Wifi dongle home screen is displayed
 - Projector display is properly calibrated to the board

OR

- iii. The Supplier has not fulfilled his contractual obligation with regard to following.
(Mention here deviation, if any, related to successful installation.)

- _____

Remarks: _____

Signature of Supplier or its representative

Name: _____
Designation: _____
Date: _____
Rubber Seal: _____

Signature of School Representative

Name: _____
Designation: _____
Date: _____
Rubber Seal of the institution

Verified by EdCIL representative

Signature: _____
Name: _____
Designation: _____
Date : _____

ANNEXURE- XVI

LIST OF AUTHORISED BANKS FOR BG

Any Guarantee issued by PSU Bank (or) Private Bank operating in India must be operational and invocable in Noida only. For Guarantee to be operational in Noida the issuing bank must designate a specified Bank Branch in Noida.

Following banks are permissible for accepting Bank Guarantees:

SCHEDULED PUBLIC SECTOR BANKS

S.No.	Name of the Bank
1	Bank of Baroda
2	Bank of India
3	Bank of Maharashtra
4	Canara Bank
5	Central Bank of India
6	Indian Bank
7	Indian Overseas Bank
8	Punjab & Sind Bank
9	Punjab National Bank
10	State Bank of India
11	UCO Bank
12	Union Bank of India

SCHEDULED PRIVATE SECTOR BANKS

S.No.	Name of the Bank
1	HDFC Bank Ltd
2	ICICI Bank Ltd
3	Axis Bank Ltd
4	Kotak Mahindra Bank Ltd
5	IndusInd Bank Ltd

Equipment Specification Compliance

COMPLIANCE STATEMENT FORM

- a) Bidders shall respond to basic sections of this tender clause by clause/Clauses, using a compliance summary statement, the sample format of which is given below. This shall be in sequential order, the same as is given in this specification.

S.N.	Technical specification of each line items as per Scope of work	Compliance statement	Description
		Put Comply or not Comply	Explain how the offered good is complaint or not compliant with the requirement of the Technical specification attached (if the bidder does not mention justification for compliance, it might be considered as non-compliant)

- b) If a compliance is stated for a clause, the good will be assumed not to comply with that particular specification item, contract and standard commercial terms and Conditions
- c) For purpose of compliance verification, a document and page number cross- reference should be given (where applicable) in the reference column of the compliance summary statement.
- d) The supplier may include other relevant documentation by indicating a page number of document. It is mandatory to include detailed technical documentation, covering specification and quality performance of goods to be offered.
- e) Any clause marked with “comply” in the bidders’ compliance summary statement is binding on the successful bidder to supply goods that meet the requirements of that clause. This shall apply for the lifetime of any awarded contract.

Annexure XVIII

PERFORMA FOR DECLARATION ON PROCEEDINGS UNDER INSOLVENCY AND BANKRUPTCY CODE, 2016

Tender No. :

Name of Work :

Bidder 's Name :

I/ We, M/s. _____ declare that:-

- a) I /We am / are not undergoing insolvency resolution Process or liquidation or bankruptcy proceeding as on date.
- b) I /We am / are undergoing insolvency resolution process or liquidation or bankruptcy proceeding as on date as per Details mentioned below. (Attached detail with technical bid)

Note: Strike out one of above which is not applicable.

It is understood that if this declaration is found to be false, EdCIL (India) Ltd. shall have the right to reject my / our bid, and forfeit the EMD, if the bid has resulted in a contract, the contract will be liable for termination without prejudice to any other right or remedy (including holiday listing) available to EdCIL (India) Ltd.

Place:

Date: Signature of Bidder Name of Signatory

Annexure XIX
EQUIPMENT SPECIFICATION
I. Atal Tinkering Labs Solution

Component Name	Specification	Quantity
Arduino Uno or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better. Operating Voltage: 5V Digital I/O Pins: 14 (of which 6 provide PWM output) PWM Digital I/O Pins : 6 Accessories : Case shell enclosure, compatible USB cable (length - 6 inch or more)	30
Arduino Nano or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better. Operating Voltage: 5V Digital I/O Pins : 14 (of which 6 provide PWM output) Analog Input Pins : 8 Accessories : Compatible USB cable (length -6 inch or more)	10
Arduino Mega or equivalent	ATmega 2560P - 8 bit AVR family microcontroller, equivalent or better. Operating Voltage: 5V Digital I/O Pins : 54 (of which 6 provide PWM output) Analog Input Pins: 16 Accessories: Case shell enclosure, Compatible USB cable (length -6 inch or more)	10
Raspberry Pi 3 Model B+	RASPBERRY PI 3 MODEL B+, equivalent or better Accessories - MicroSD card - 32 GB, USB 3.0 cable (1 meter), HDMI to VGA - 1 meter, HDMI to VGA adapter, Case shell enclosure	5
Breadboards & Mini Breadboard	Solderless 400 pin breadboard	30
	Solderless 800 pin breadboard	20
	Self-Adhesive Proto Shield	20
General Purpose solderable Board	FR2 A Grade Material (140 x 90 mm)	30
	FR2 A Grade Material (80 x 55 mm)	30
Berg Strips	Female Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	30

	Male Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	30
16x2 LCD display	Dot matrix LCD display. 16 characters X 2 lines. I2C	20
USB Cables	USB Cable Set (A to B, 12 inch or more)	10
USB Cables	USB Cable Set (Mini, 12 inches or more)	10
Battery	9-12V 2000 to 2500 mAh rechargeable battery with 2 chargers. Equivalent or better	10
	Rechargeable Battery Charger	2
Resistor Kit	One kit contains - 30 carbon film resistors of 20 different resistance values each assorted, packaged together and labelled.	20
	Wattage: 0.125W to 1W	
	Values: 0 Ω , 1.5 Ω , 4.7 Ω , 10 Ω , 47 Ω , 100 Ω , 220 Ω , 330 Ω , 470 Ω , 680 Ω , 1k Ω , 2.2k Ω , 3.3k Ω , 4.7k Ω , 10k Ω , 22k Ω , 47k Ω , 100k Ω , 330k Ω , 1M Ω	
Capacitor Kit	One kit contains - 20 electrolytic capacitors of 10 different capacitance values each. Assorted kit packaged together and labelled. Values: 10pF, 22pF, 100pF, 1nF, 10nF, 100nF, 1 μ F, 10 μ F, 100 μ F, 1000 μ F	20
Linear Voltage Regulator	7805, 7812, 7809	30
Water Pump module	DC12V 3W Submersible Water Pump	4
Piezoelectric Plate	Normal Copper based 4 cm Diameter approx.	30
8*8 LED Matrix Module	Max7219 Dot LED Matrix Module. MCU Control LED Display Module	10
Bluetooth module	HC 05 Bluetooth module Voltage Rating: 5 V	15
7 Segment Led Display	LED 4-Digit Display Module Voltage Rating: 2.4V to 5.5V 4-Pin interface: Vcc, Gnd, Data, Clock	20
GSM	Sim900 GPRS Transfer Board Micro Sim Gsm Core TTL Port Module for Arduino	4

GPS	GY-NEO6MV2 new GPS module	4
Laser Diode Emitter	650 nm 5mW Mini Laser Dot Diode Module	10
LDR Module	5mm/12mm, Photosensitive LDR Light Sensor Module	30
Keypad	Universal 16 Key Switch Keypad	10
JoyStick	2-axis joystick with push button function	10
Active Buzzer	Small 5 volt	40
	Big 5 volt	40
Motor driver Module	L293D	10
Sound Playback Module	ISD1820 voice recording module or equivalent	10
DC Plastic Gear motor with wheel	12V, 150RPM, Side Shaft BO (Battery operation) Motor	40
Node MCU	ESP 8266 I2C, 1 wire, plug and play	6
WeMos D1 R2	WeMos D1 R2 with WiFi ESP 8266 Operating Voltage: 5V	6
Vibrating Motor	Weight: 10 Grams Operating Voltage: 1.5 to 3V	20
Alligator Connectors	Multi-Colour Alligator Connectors - 12 inch	200
Battery clips with DC Jack	9-volt battery clips with DC Jack	40
Hook-up Wires	Red & Black set 100 Meters each	4
Jumper Cable	Male-Male	1000
	Male-Female	600
	Female-Female	400
RGB LEDs	Regular 5mm 3-5 volt Range	400
LEDs (Red)	Regular 5mm 3-5 volt Range	1000
LEDs (Green)	Regular 5mm 3-5 volt Range	1000
LEDs (Blue)	Regular 5mm 3-5 volt Range	1000
LEDs (Yellow)	Regular 5mm 3-5 volt Range	1000
LEDs (White)	Regular 5mm 3-5 volt Range	1000

Timer IC - LM 555	LM 555 Timer IC. Voltage range - 4.5V to 16V	30
Atmega16u2	8 bit microcontroller Individual IC (DIP). Voltage range: 2.7V to 5.5V. Operational Range: -40°C to +80°C	10
Diodes and Transistors Kit	One Kit Contains - 25 Assorted Basic Diodes of 4 different types each. Types: NPN Transistor - 2N3904, BC547 PNP Transistor - 2N3906, BC557 Silicon Diode - 1N4148, Power Diode - 1N4004/4001. Equivalent or better. Wattage: 1W, Current rating: 1A Assorted kit packaged together and labelled.	3
Button Switch Set	One Kit Contains - 100 buttons of different types. Types: Push, toggle, rotary, selector and slide switch. Assorted kit packaged together and labelled.	3
Capacitive touch Module	MPR 121 with I2C. Voltage Range: 2.5V to 3.6V DC.	20
Capacitive Touch Switch Module	Digital Capacitive touch switch module -TTP223B Voltage Range: 2V to 5V DC.	10
IR Sensors, Obstacle avoider sensor module	LM393 Detection distance: 2 - 30 cm Detection angle: 30 - 40°	20
Triple Axis Magnetometer	3-Axis Magneto resistive Sensors I2C Digital Interface Integrated 12-bit ADC Range of -8 to +8 Gauss 160 Hz Maximum o/p rate	10
Humidity Sensor	Operating range: 20 – 95 % RH Temperature: 0 - 60 Celsius Power supply: 1.5V AC (Max sine) Operating frequency: 500Hz - 2kHz	10
MQ Series	MQ - 2 Smoke Detection	3
	MQ-3 Alcohol - Ethanol Sensor	3
	MQ-4 Methane Natural Gas Sensor	3
	MQ-5 Methane Liquified Gas Sensor	3
	MQ-6 Liquified Petroleum Gas Sensor	3

	MQ-7 High Sensitivity CO Carbon Monoxide Sensor Detector	3
	MQ-8 Hydrogen Gas Sensor	3
	MQ-135 Air Quality Sensor	3
IR transmitter/receiver	TSOP 1738 Switching rate: 38 KHz Voltage Rating: 5V	10
Ultrasonic Sensor Module HC-SR-04 or compatible	Working Voltage - DC 5V Working current - 15 mA Working Frequency - 40 Hz Range - 1 cm to 4 m Effectual Angle - <15° Measuring Angle - 30° Resolution - 0.3 cm	40
Triple Axis accelerometer-	3-axis sensing Small, low profile package 4 mm × 4 mm × 1.45 mm LFCSP Low Power: 350 μA (typical) Single-supply operation: 1.8 V to 3.6 V Temperature stability	10
PIR Motion Detector Module	High digital pulse when motion detected Low digital pulse when idle /no motion detected Sensitivity range (up to 6 m) Power supply: 5V – 12V	20
Pulse Rate Heart Sensor	Pulse Rate Sensor Finger Based (finger or earlobe) Working voltage 3-5V	4
Relay Module	5V 10A - 2 Channel Relay Module. Compatible with Arduino.	20
Relay Module	5V 10A - 1 Channel Relay Module. Compatible with Arduino.	20
Big Sound microphone module	Large Electret capsule sound module	10
Big Sound microphone module	Large Electret capsule sound module	10
Soil Moisture Sensor module	FC-28 with LM293 comparator Operating Voltage: 3.3V to 5V.	6
Touch Sensor	Capacitive Touch Sensor Module. TTP22X series. Voltage Range: 2.4V to 5.5V	6
Metal Touch Sensor Module	KY-036 or equivalent metal touch sensor module	6

Rain Drop Sensor	Rain Sensitive, Rain Drop Detection Sensor Module. Voltage Range: 3.3V to 5.5V. Size: 5mm X 40mm or equivalent.	6
Flex Sensor	Flex Sensor. Size - 2.2 Inches	6
Temperature Sensor	LM35 Full range temperature sensor. Voltage Range: 4V to 30V. Error: $\pm 0.5^{\circ}\text{C}$	6
Temperature and humidity sensor module	DHT 11 Voltage Range: 3V to 5V	40
Force Pressure Sensor	Force sensitive resistor with a square, 1.75x1.5" sensing area	4
Colour Recognition Sensor	TCS3200 Colour Recognition Sensor	4
Water Flow Sensor	Arduino Compatible Water flow sensor. 5V DC Input.	4
Sound Sensor	Sound Sensor Module, Microphones module	10
IR Sensors Array module for Line Following	8 IR Sensors Array module for Line Following Operating Voltage: 5V	10
Power Bank	10000 mAh 5-volt Power Bank	5
RFID Reader – Tags	Current :13-26mA / DC 3.3V Idle Current :10-13mA Sleep Current<80uA Peak Current<30mA Operating Frequency: 13.56MHz<30mA Read range between 20 cm to 1 m	10
RF Modules Tx & Rx 315 MHz ASK	Frequency Range: 433.92/315 MHz Supply Voltage: 3 – 6 V Output: 4 – 16 Dbm Low power consumption Easy application	10
Stepper motor with Driver board	28BYJ-48 ULN2003 5V Stepper Motor + ULN2003 Driver Board	10
DC motor	12V DC Gear 150 RPM	20
Servo motors	Position Servo Angle based Metal Gear	10

	Small Servo Metal Gear	10
	Continuous Metal Gear Servo 360	10
	Small Servo Plastic Gear	40
150 RPM BO Motor	150 RPM BO Motor	10
L298P Motor Driver	L298P Motor Driver Shield or relative Driver Shield	10
Servo Motor Tester	CCPM 3 channel Servo Tester	4
Robotics DIY Kit	Robotics DIY kit with programmable intelligent brain/brick.	3
Mechanical (Modular) Construction kit	Metal/plastic mechanical construction kit compatible with electronic equipment.	5
Drone Kit	Educational Purpose	1
Aerospace Kit		1
Automobile Kit		1
Bio-Medical Kit		1
Agri-Tech Kit		1
Water\Sanitation Kit		1
Bio Tech Kit		1
Other Potential STEM Application Kit		1
3D Printer Kit and tools		Printer Type: FDM (Fused Deposition Modelling), Minimum Dimensions: 160mm *160mm *160mm Build Size or 4 litre Build Volume., Nozzle: 0.3mm to 0.4mm nozzle diameter, slicing software should be free or Open source, LCD Screen UI that display print metrics, Good Heated Print bed. Material Compatibility - PLA, ABS, and derivatives of PLA, Ninjaflex Quality Anti-bacterial/fungal Cover. Repair Kit - with spare springs, screws, keys, tweezers, etc.
Dedicated UPS/Power back up	Dedicated UPS/Power Back up with 2-hour battery backup.	1

Filament for 3D printer	Compatible 1000 Grams Filament in 5 different colours	5
Filament Storage Box	Compatible Filament storage box	5
Set of Arts & Crafts Accessories – e.g.-stationary items and basic prototyping material	Cardboard	5
	Foam core boards	5
	20m spool of thick strings various colour	5
	Rubber band	100
	Popsicle sticks	100
	Wood glue – 500 ml	2
Mini Hacksaw Frame	Size: 6 inches	1
Mini Hacksaw blades	Size: 6 inches	10
Hacksaw	Size: 12 inches	1
Extra hacksaw blades	Size: 12 inches	10
Pliers: 4.5-inch size	External Straight	1
	Nose Circlip Plier	1
	Long Nose Plier	1
	Combination Mini Plier	1
	Wire stripping pliers	1
	Bent nose plier	1
	Needle nose pliers	1
Tweezer Set	6 Pc Non-Magnetic Tweezer Set Size - 6 inches	2
Ball Pein Hammer	Ball Pein Hammer Weight - 0.75kg	1

Steel Shaft Claw Hammer	Claw Hammer Steel Shaft Weight - 0.75kg	1
C-Clamp	Metal Clamp: 3-inch size	4
Allen Key Set	10 Piece Ring Imperial Allen Hex key	1
Drill Machine Set	Drill Machine with accessories Hammer/Screw and clockwise/anticlockwise modes. Power: 500W Chuck capacity - 1 to 10 mm Drill Bits - Masonry, Metal, Wood	1
Drilling Workstation	Drill Press, Drill Holder and Rotary Tool, Compatible with Drilling machine provided	1
Spanner Set	12-piece combination Spanner Set Range - 4 mm to 30 mm	1
Wire Strippers	Wire Stripper Cutter Plier With Spring -26x6x20 cm (LxWxH)	5
Vice Normal	Table top vice	1
Screwdriver	40 pc Multi-purpose screwdriver set	3
Adjustable Universal Multi Wrench Spanner	Adjustable Universal Wrench	2
Cordless Rotary Multitool Set	Cordless Rotary multitool with all cutting, grinding, polishing, engraving and drill bits. Speed: Adjustable up to 30000 RPM Battery Type: Li-ion Voltage/current range : 8-10V, 0-2 A	1
Air Blower	500 W or more. Variable speed blower	1
Drill Bit Set	High Quality 13 Pcs HSS Drill Bits Set for Wood, Iron, Aluminium, Plastic etc.	1
File set	6 pc file set Working length - 6 inch	1
Mini File set	6 pc mini file set Working length - 3 inch	1
Flexible Cutting Mat	A3 Size with Marked Pattern and Grids (18" X 12")	1
Plastic Storage Drawer/Organiser	Number of Drawers: 60 or equivalent Drawer size (l*w*d) (inch) : 2*2*5	2

Pegboard	Peg board System to mount tools on wall with attachments. Size: 3ft*2ft	2
Hot glue gun	Works with standard 0.5- inch glue sticks. Temperature - 230 to 280 degree Celsius.	4
Digital Oscilloscope	Minimum Bandwidth: 50 Mhz. Minimum number of channels: 2 channels. Sample Rate: 1Gsa/s With inbuilt waveform function generator.	1
Soldering Kit	Variable Wattage of Soldering Iron: 15-30 watts/230 volts Soldering Iron Temperature Range: 280°C to 450°C De-Soldering Pump, Soldering Flux (Paste) 100 grams, DE-soldering Copper Braid (Solder Wick) - 1.5m*2mm Compatible Soldering Tip - Bevel, Chisel, Conical - 5 each per kit. Soldering Wire: 20/22 AWG soldering Wire with rosin core flux (100 Grams)	4
Adapters	DC power Adapter with 5V, 2A	10
Adapters	DC power Adapter with 12V, 2A	10
Electric Screw Driver Set	Multipurpose Electric screwdriver set. Accessories - Compatible bits Mode - Wireless Battery - Li-ion 3.6V or equivalent with charging dock	1
Dual Temperature Heat Gun	1800 W Dual Temperature Heat Gun	1
Soldering Helping hand	Adjustable crocodile holding clamps/clip. Soldering iron holder. LED light. Magnifying lens.	4
Return measuring tape	Return measuring tape 5Mx19mm	2
Stainless Steel Rule	Stainless Steel 12" /150 mm Rule	5
Digital Vernier Calliper	150 mm / 6" Digital Vernier Calliper	2
Spirit Level	12" Spirit Level	1
Digital Pen electric Tester	Voltage tester	1
Digital Multi Meter	Digital Multi Meter Voltage Current Resistance-7 functions + 19 ranges to cover DC voltage 200mV to 1kV, AC voltage 200 V - 750 V, DC current 200 μ A - 10 A Resistance 200 -2 M Ohm and Transistor & diode test.	5

DIY Paper Microscope	DIY Paper microscope. Magnification range - 100x to 2000x	5
Telescope	All glass optical components Altazimuth mount suitable for terrestrial and astronomical use minimum 700 mm focal length	1
Sewing Kit	Semi-Automatic Sewing machine Straight stitch Consumables - 2 set of assorted needles and 10- colour spool set.	1
Glue Sticks	11 mm x 200mm Hot Melt Glue Stick	100
Nuts and Bolts and screw	Specs - M4X12MM M4X20MM M5X16MM M5X25MM M6X20MM	40
Cable Tie	Small Cable Tie Pack - Pack of 100	10
	Medium Cable Tie Pack - Pack of 100	10
	Big Cable Tie Pack - Pack of 100	10
Sand Paper	Grit Values - 80, 100, 120, 200, 300. 5 Nos of each	10
Power Strip Adaptors	Standard Quality Extension with 5Amp safety fuse. 5 or more sockets in each extension. 5-meter length of each extension.	5
Bulb Holders	Regular Hanging Bulb holder	10
Electric Wires	Twisted Red black pair	20
USB TO DC jack cable	USB to DC jack cable for Battery bank	10
First-Aid Kit	Standard Medical First Aid kit in portable container.	2
Fire extinguisher (handy units)	Powder Type Fire Extinguisher 2KG	2
Safety goggles (with/without LED torch)	Polycarbonate Safety goggles Clear lens with no tint	30
Safety Gloves Pairs	Latex Coating Gloves (Medium Size)	10
Safety Mask	Filtering efficiency ranging 80 percent when tested against 0.3-micron sodium chloride particle	20

<p>Laptop: Intel i3 / Ryzen R3 (or higher) or an equivalent product from other manufacturers.</p>	<p>intel i3/Ryzen R3 or higher</p> <ul style="list-style-type: none"> • 8 GB RAM · 3200 Mhz or higher · expandable to 32 GB (2 Physical DIMM), • 512 GB SSD or higher (Should be Dual Storage Capable), • Integrated Graphics, • Minimum 14-inch LED· backlit (1366 x 768 resolution) , • Body to Screen ratio should be higher than 80%, • HD webcam with Dual Microphone, • Port: HDMI · One(1), Headphone /microphone Combo : One (1), Power connector ·One(1), Wi-Fi 6 enabled, 2 USB 3.2, 1 x USB 3.2 Gen 1 (Type C), • Security: TPM 2.0, Security Lock Slot, • Battery: 3 cell 36 Whr or better, 1 Year Comprehensive Warranty including with 1 years warranty on battery & adapter, reputed brand, • Mandatory Industry Standard, Preinstall OEM Own Manageability Tool/Software for Asset Management, Patch Management, Power Management Settings, 3rd Party Application Deployment, Network Monitoring, Certifications: CE, FCC/UL Compliance, EPR, Energy Star. • OEM should have valid 18090001, 18050001, ISO20001, 18027001 & 18014001.SA 8000, Window 11 Home 	<p>2</p>
<p>Projector 3200 lumen or more with LED/LCD/DLP (wifi enable), Lamp life >6000 hrs with reputed brand with 3 years warranty</p>	<ul style="list-style-type: none"> • DLP, Front & Rear Both XGA 1024 x768 • 4000 ANSI Lumens for Colour Light & White ·light Output Both or higher • Contrast Ratio : 20000: 1 • Aspect Ratio : 4:3 and 16:9 both • Throw Ratio : 1.44- 2.10 , Light Source · UHP/UHE/UHM, • Lamp life: Min.6000 Hrs. (Normal Mode) & 12000 hrs. • I/O connection Mode:HDMI PORT*2, USB·A • OEM Warranty: 2 year, 1 year or 1000 hours on light source. • OEM should have direct presence in India for minimum 20years. 	<p>1</p>
<p>Projector screen /Mat finish White board</p>	<p>Wall mounted projector screen size of 6ft x 4ft & mounting accessories</p>	<p>1</p>
<p>Speaker</p>	<p>speakers with a balanced frequency response ,suitable power handling (aligned with the lab's amplifier), and a sensitivity level around 55 dB. Choose speakers with durable construction, easy installation options, and consider reputable brands with positive reviews</p>	<p>1</p>
<p>Projectors hanging kit (Projector mount Kit & VGA Cable)</p>	<p>Select a universal projector mount kit with adjustable arms and a VGA cable with sufficient length and high-quality shielding for the lab setup. Ensure compatibility with the projector model and consider cable management options for a tidy installation.</p>	<p>1</p>
<p>Printer (B/W)</p>	<p>Product Dimensions ·21.56 x 12.42 x 42.57 cm; 2.36 Kilograms, Batteries 1 Lithium Ion batteries required. , Hardware Interface · USB , Max Printspeed Monochrome· 7.5 ppm , Max Printspeed Colour · 5.5 ppm , Printer Output Type· Colour, Printing Technology · Inkjet ,</p>	<p>1</p>

	Printer Media Size Maximum · A4, B5, A6, DL, envelope , Resolution · 4800 x 1200 DPI, 1200 x 1200 DPI , Connector Type · USB	
Practical Arena	Rectangular table with 6inc walls, W96XD48XH30 inch (Optional) (Wooden Top-Iron Legs- optional)	1
Steel Almirah	<ul style="list-style-type: none"> • Size: 50"H x 30"W x 17 ' Depth • The Cup Board should be made of 26G. • CRCA sheet with two door and two fixed shelves. • The pedestal should be of 3" height. 	2
Refurbishment of Lab	Asian plastic Paint with High-quality paint more evenly to create a smoother finish in all walls and top with repair of walls with putti and In Electrical fittings 4 power point on walls with 2 socket and one socket for Projector	1
Branding/Postering	Banners in lab for the ATL 4 poster and 3 banners and with safety banners, signage etc	1

II. STEM Lab Solution

Component Name	Specification	Quantity
Arduino Uno or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better. Operating Voltage: 5V Digital I/O Pins: 14 (of which 6 provide PWM output) PWM Digital I/O Pins : 6 Accessories : Case shell enclosure, compatible USB cable (length - 6 inch or more)	30
Arduino Nano or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better. Operating Voltage: 5V Digital I/O Pins : 14 (of which 6 provide PWM output) Analog Input Pins : 8 Accessories : Compatible USB cable (length -6 inch or more)	10
Arduino Mega or equivalent	ATmega 2560P - 8 bit AVR family microcontroller, equivalent or better. Operating Voltage: 5V Digital I/O Pins : 54 (of which 6 provide PWM output) Analog Input Pins: 16 Accessories: Case shell enclosure, Compatible USB cable (length - 6 inch or more)	10

Raspberry Pi 3 Model B+	RASPBERRY PI 3 MODEL B+, equivalent or better Accessories - MicroSD card - 32 GB, USB 3.0 cable (1 meter), HDMI to VGA - 1 meter, HDMI to VGA adapter, Case shell enclosure	5
Breadboards & Mini Breadboard	Solderless 400 pin breadboard	30
	Solderless 800 pin breadboard	20
	Self-Adhesive Proto Shield	20
General Purpose solderable Board	FR2 A Grade Material (140 x 90 mm)	30
	FR2 A Grade Material (80 x 55 mm)	30
Berg Strips	Female Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	30
	Male Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	30
16x2 LCD display	Dot matrix LCD display. 16 characters X 2 lines. I2C	20
USB Cables	USB Cable Set (A to B, 12 inch or more)	10
USB Cables	USB Cable Set (Mini, 12 inches or more)	10
Battery	9-12V 2000 to 2500 mAh rechargeable battery with 2 chargers. Equivalent or better	10
	Rechargeable Battery Charger	2
Resistor Kit	One kit contains - 30 carbon film resistors of 20 different resistance values each assorted, packaged together and labelled. Wattage: 0.125W to 1W Values: 0Ω, 1.5Ω, 4.7Ω, 10Ω, 47Ω, 100Ω, 220Ω, 330Ω, 470Ω, 680Ω, 1kΩ, 2.2kΩ, 3.3kΩ, 4.7kΩ, 10kΩ, 22kΩ, 47kΩ, 100kΩ, 330kΩ, 1MΩ	20
Capacitor Kit	One kit contains - 20 electrolytic capacitors of 10 different capacitance values each. Assorted kit packaged together and labelled. Values: 10pF, 22pF, 100pF, 1nF, 10nF, 100nF, 1μF, 10μF, 100μF, 1000μF	20
Linear Voltage Regulator	7805, 7812, 7809	30
Water Pump module	DC12V 3W Submersible Water Pump	4
Piezoelectric Plate	Normal Copper based 4 cm Diameter approx.	30
8*8 LED Matrix Module	Max7219 Dot LED Matrix Module. MCU Control LED Display Module	10
Bluetooth module	HC 05 Bluetooth module Voltage Rating: 5 V	15
7 Segment Led Display	LED 4-Digit Display Module Voltage Rating: 2.4V to 5.5V 4-Pin interface: Vcc, Gnd, Data, Clock	20
GSM	Sim900 GPRS Transfer Board Micro Sim Gsm Core TTL Port Module for Arduino	4

GPS	GY-NEO6MV2 new GPS module	4
Laser Diode Emitter	650 nm 5mW Mini Laser Dot Diode Module	10
LDR Module	5mm/12mm, Photosensitive LDR Light Sensor Module	30
Keypad	Universal 16 Key Switch Keypad	10
JoyStick	2-axis joystick with push button function	10
Active Buzzer	Small 5 volt	40
	Big 5 volt	40
Motor driver Module	L293D	10
Sound Playback Module	ISD1820 voice recording module or equivalent	10
DC Plastic Gear motor with wheel	12V, 150RPM, Side Shaft BO (Battery operation) Motor	40
Node MCU	ESP 8266 I2C, 1 wire, plug and play	6
WeMos D1 R2	WeMos D1 R2 with WiFi ESP 8266 Operating Voltage: 5V	6
Vibrating Motor	Weight: 10 Grams Operating Voltage: 1.5 to 3V	20
Alligator Connectors	Multi-Colour Alligator Connectors - 12 inch	200
Battery clips with DC Jack	9-volt battery clips with DC Jack	40
Hook-up Wires	Red & Black set 100 Meters each	4
Jumper Cable	Male-Male	1000
	Male-Female	600
	Female-Female	400
RGB LEDs	Regular 5mm 3-5 volt Range	400
LEDs (Red)	Regular 5mm 3-5 volt Range	1000
LEDs (Green)	Regular 5mm 3-5 volt Range	1000
LEDs (Blue)	Regular 5mm 3-5 volt Range	1000
LEDs (Yellow)	Regular 5mm 3-5 volt Range	1000
LEDs (White)	Regular 5mm 3-5 volt Range	1000

Timer IC - LM 555	LM 555 Timer IC. Voltage range - 4.5V to 16V	30
Atmega16u2	8 bit microcontroller Individual IC (DIP). Voltage range: 2.7V to 5.5V. Operational Range: -40°C to +80°C	10
Diodes and Transistors Kit	One Kit Contains - 25 Assorted Basic Diodes of 4 different types each. Types: NPN Transistor - 2N3904, BC547 PNP Transistor - 2N3906, BC557 Silicon Diode - 1N4148, Power Diode - 1N4004/4001. Equivalent or better. Wattage: 1W, Current rating: 1A Assorted kit packaged together and labelled.	3
Button Switch Set	One Kit Contains - 100 buttons of different types. Types: Push, toggle, rotary, selector and slide switch. Assorted kit packaged together and labelled.	3
Capacitive touch Module	MPR 121 with I2C. Voltage Range: 2.5V to 3.6V DC.	20
Capacitive Touch Switch Module	Digital Capacitive touch switch module -TTP223B Voltage Range: 2V to 5V DC.	10
IR Sensors, Obstacle avoider sensor module	LM393 Detection distance: 2 - 30 cm Detection angle: 30 - 40°	20
Triple Axis Magnetometer	3-Axis Magneto resistive Sensors I2C Digital Interface Integrated 12-bit ADC Range of -8 to +8 Gauss 160 Hz Maximum o/p rate	10
Humidity Sensor	Operating range: 20 – 95 % RH Temperature: 0 - 60 Celsius Power supply: 1.5V AC (Max sine) Operating frequency: 500Hz - 2kHz	10
MQ Series	MQ - 2 Smoke Detection	3
	MQ-3 Alcohol - Ethanol Sensor	3
	MQ-4 Methane Natural Gas Sensor	3
	MQ-5 Methane Liquified Gas Sensor	3
	MQ-6 Liquified Petroleum Gas Sensor	3
	MQ-7 High Sensitivity CO Carbon Monoxide Sensor Detector	3
	MQ-8 Hydrogen Gas Sensor	3
	MQ-135 Air Quality Sensor	3
IR transmitter/receiver	TSOP 1738 Switching rate: 38 KHz Voltage Rating: 5V	10

Ultrasonic Sensor Module HC-SR-04 or compatible	Working Voltage - DC 5V Working current - 15 mA Working Frequency - 40 Hz Range - 1 cm to 4 m Effectual Angle - <math><15^\circ</math> Measuring Angle - <math>30^\circ< math><br=""></math>30^\circ<> Resolution - 0.3 cm	40
Triple Axis accelerometer-	3-axis sensing Small, low profile package 4 mm × 4 mm × 1.45 mm LFCSP Low Power: 350 μ A (typical) Single-supply operation: 1.8 V to 3.6 V Temperature stability	10
PIR Motion Detector Module	High digital pulse when motion detected Low digital pulse when idle /no motion detected Sensitivity range (up to 6 m) Power supply: 5V – 12V	20
Pulse Rate Heart Sensor	Pulse Rate Sensor Finger Based (finger or earlobe) Working voltage 3-5V	4
Relay Module	5V 10A - 2 Channel Relay Module. Compatible with Arduino.	20
Relay Module	5V 10A - 1 Channel Relay Module. Compatible with Arduino.	20
Big Sound microphone module	Large Electret capsule sound module	10
Big Sound microphone module	Large Electret capsule sound module	10
Soil Moisture Sensor module	FC-28 with LM293 comparator Operating Voltage: 3.3V to 5V.	6
Touch Sensor	Capacitive Touch Sensor Module. TTP22X series. Voltage Range: 2.4V to 5.5V	6
Metal Touch Sensor Module	KY-036 or equivalent metal touch sensor module	6
Rain Drop Sensor	Rain Sensitive, Rain Drop Detection Sensor Module. Voltage Range: 3.3V to 5.5V. Size: 5mm X 40mm or equivalent.	6
Flame sensor	Flame sensor module	4
Temperature Sensor	LM35 Full range temperature sensor. Voltage Range: 4V to 30V. Error: $\pm 0.5^\circ\text{C}$	6
Temperature and humidity sensor module	DHT 11 Voltage Range: 3V to 5V	40
Colour Recognition Sensor	TCS3200 Colour Recognition Sensor	4
Water Flow Sensor	Arduino Compatible Water flow sensor. 5V DC Input.	4

Sound Sensor	Sound Sensor Module, Microphones module	10
IR Sensors Array module for Line Following	8 IR Sensors Array module for Line Following Operating Voltage: 5V	10
Power Bank	10000 mAh 5-volt Power Bank	5
RFID Reader – Tags	Current :13-26mA / DC 3.3V Idle Current :10-13mA Sleep Current<80uA Peak Current<30mA Operating Frequency: 13.56MHz<30mA Read range between 20 cm to 1 m	10
RF Modules Tx & Rx 315 MHz ASK	Frequency Range: 433.92/315 MHz Supply Voltage: 3 – 6 V Output: 4 – 16 Dbm Low power consumption Easy application	10
Stepper motor with Driver board	28BYJ-48 ULN2003 5V Stepper Motor + ULN2003 Driver Board	10
DC motor	12V DC Gear 150 RPM	20
Servo motors	Position Servo Angle based Metal Gear	10
	Small Servo Metal Gear	10
	Continuous Metal Gear Servo 360	10
	Small Servo Plastic Gear	40
150 RPM BO Motor	150 RPM BO Motor	10
L298P Motor Driver	L298P Motor Driver Shield or relative Driver Shield	10
Servo Motor Tester	CCPM 3 channel Servo Tester	4
Electronic mechanized arm	4 Servo SG 90 for 4 Degree of freedom, robotic arm can change different in different axis coordination like to pick and drop, helps students to perform fixed and changing motion	4
Robotics DIY Kit	Robotics DIY kit with programmable intelligent brain/brick.	3
Mechanical (Modular) Construction kit	Metal/plastic mechanical construction kit compatible with electronic equipment.	5
Drone Kit	Educational Purpose	1
Automobile Kit		1
Bio-Medical Kit		1
Aerospace Kit		1
Water/ Sanitation Kit		1
Bio Tech Kit		1

3D Printer Kit and tools	Printer Type: FDM (Fused Deposition Modelling), Minimum Dimensions: 160mm *160mm *160mm Build Size or 4 litre Build Volume., Nozzle: 0.3mm to 0.4mm nozzle diameter, slicing software should be free or Open source, LCD Screen UI that display print metrics, Good Heated Print bed. Material Compatibility - PLA, ABS, and derivatives of PLA, Ninjaflex Quality Anti-bacterial/fungal Cover. Repair Kit - with spare springs, screws, keys, tweezers, etc.	1
3D Pen	3D Pen with 3 * 1.75MM PLA Filaments 10m Each 3D Printing Pen 3D Pen Set with PLA Filament Included - Ready to Create	2
Filament for 3D printer	Compatible 1000 Grams Filament in 5 different colours	5
Filament Storage Box	Compatible Filament storage box	5
Dedicated UPS/Power back up	Dedicated UPS/Power Back up with 2-hour battery backup.	1
Set of Arts & Crafts Accessories – e.g.- stationary items and basic prototyping material	Cardboard	5
	Foam core boards	5
	20m spool of thick strings various colour	5
	Rubber band	100
	Popsicle sticks	100
	Wood glue – 500 ml	2
Glue Sticks	11 mm x 200mm Hot Melt Glue Stick	100
Nuts and Bolts and screw	Specs - M4X12MM M4X20MM M5X16MM M5X25MM M6X20MM	40
Cable Tie	Small Cable Tie Pack - Pack of 100	10
	Medium Cable Tie Pack - Pack of 100	10
	Big Cable Tie Pack - Pack of 100	10
Sand Paper	Grit Values - 80, 100, 120, 200, 300. 5 Nos of each	10
Power Strip Adaptors	Standard Quality Extension with 5Amp safety fuse. 5 or more sockets in each extension. 5-meter length of each extension.	5
Bulb Holders	Regular Hanging Bulb holder	10
Electric Wires	Twisted Red black pair	20
USB TO DC jack cable	USB to DC jack cable for Battery bank	10
Safety equipment	Fire extinguisher (handy units) Powder Type Fire Extinguisher 2KG	

Gear Box	This course makes it easier for children to understand the basics of Physics. The concepts that they learn helps them throughout their learning process in science concepts. Children build complex machines and mechanisms and see the advantage of one over the other. Moreover, they develop tremendous creator confidence in imagining and executing the output of their machine.	10
Nuclear Reactor model	- The model shows demonstration working of nuclear power plant - It uses lights running effect to show the process - 30 x 23 x 4.5 cm; 1 Kilograms - Battery: 1 x 9V (Included)	1
Inorganic / Organic Chemistry Molecular Models	- Material: PP Plastic - Total number of pieces: 151 - Diameter for the balls: 23mm - With Box & Includes Manual - Kit Content: 24 hydrogen, 14 carbon, 8 oxygen, 3 nitrogen, 2 sulphur, 2 phosphorus, 6 halogen, 8 metal, 4 brown, 3 lone pair 2D paddles (beige) Links: 40 medium (grey), 6 medium (purple), 16 long flexible (grey).	1
Laser ray optics kit	An exciting way to learn about optics by building and exploring common optical systems.	2
Law of resistance kit	To verify the laws of combination.	1
Transformer kit	Transformers are electrical devices that transfer energy from one circuit to another using no moving parts. They are commonly used to change voltages to useful levels and are integral to many household appliances.	2
Set of polarizers	Polarizers are used in many optical techniques and instruments, and polarizing filters find applications in photography and LCD technology.	1
Digital pH meter	- Measuring range: 0.00-14.00 pH - Resolution: 0.01 pH - Accuracy: 0.01 pH - Batteries: 2 X 1.5V LR44 (included) - Automatic temperature compensation: 0-50°C (32-122°F) - Dimensions: 15.3x2.9x1.6cm/6.1x1.3x0.6 inches - Net Weight: 52g	1
Periodic Table Chart (Laminated)	Periodic Table Chart (Laminated)	1
3d Model Cube & Square	3d Model Cube & Square	1
3D Solid Model Cube, Cuboid, Cone, Cylinder, Prism, Pyramid Sphere	3D Solid Model Cube, Cuboid, Cone, Cylinder, Prism, Pyramid Sphere	1
Compound Microscope	Compound Microscope	1
3D Model of Human	3D Model of Human Heart	1

Heart		
3D Model of Human System (Set of 5) (Circulatory, Respiratory, Nervous, Digestive, Reproductive)	3D Model of Human System (Set of 5) (Circulatory, Respiratory, Nervous, Digestive, Reproductive)	1
Area of Parallelogram	Area of Parallelogram	1
Atomic Structure Model	- Circular Atomic structure model with 30 proton, 30 neutron, and 30 electron pieces. - Atom Model allows students to use their hands, touch, feel, make their own atoms, isotopes or ions and learn the concepts in an interesting and easy manner. Model a single atom with the top. - Atom model with magnetic subatomic particle pieces demonstrates atoms, isotopes, and ions for students studying chemistry concepts. - Plastic for durability and ease of cleaning - Storage - Plastic Box - Dimension - 24 x 36 x 7 cm	1
Day & Night Model	Day & Night Model	1
Electroplating Machine Working Model	- Kit for making a miniature electroplating unit to see: 1. Copper deposition on iron nail 2. Real life application of electroplating With the help of this hands-on kit, assimilate an elementary understanding of the Chemical effects of Electric Current. With this kit, kids will create their own battery with the help of water, salt (thus acting as an electrolyte) and two diodes to light a bulb! Next, kids will learn about the effect of electroplating: the deposition of one diode's metal on the other! With the help of an apparatus similar to the first experiment, use Copper Sulphate in water as an electrolyte, and connect all kinds of objects in the place of the cathode: use an iron nail, wooden stick, iron sheet and aluminium sheet and sit back and observe the fascinating chemical reaction that occurs!	1
Faraday Law	Faraday Law	1
Kaleidoscope	Kaleidoscope	1
Law of Inertia	Law of Inertia	1
Maxwell Wheel	Maxwell Wheel	1
Mechanism of Breathing	Mechanism of Breathing	1
Newton 1st Law	Newton 1st Law	1
Newton 2nd Law	Newton 2nd Law	1
Newton Cradle	Newton Cradle	1
Fleming Left Hand Rule	Fleming Left Hand Rule	1
Fleming Right Hand Rule	Fleming Left Hand Rule	1
Periodic Table	Periodic Table	1
Periscope	Periscope	1
Phases of Moon	Phases of Moon	1

Pythagoras Theorem By Reverse Method	- Colour: Yellow & Red - Material: Plastic - Size: 15 x 15 cm	1
Plant Cell	Plant Cell	1
Square of Numbers power of 2 board	- Square of Numbers power of 2 board mathematics kit learning resources kit geoboard manipulative - Size 25×25 cm plastic (Multicolour)	2
Algebra Case Kit	Colour: Yellow red Length: 41 cm Width: 41 cm Type: Case kit Brand:	1
Resonance	Resonance	1
Mensuration Kit	- Set of 11 demo activity kit - Understanding geometric figures and their parameters like length, volume, shape, surface area, lateral surface area, etc - Dimension: 40 x 30 x 8 cm - Material: EVA Foam	1
Solar System	Solar System	1
Solar & Lunar Eclipse	Solar & Lunar Eclipse	1
Water Quality Checker Models	- Water Quality Checker Science Working Model for Chemistry to Check Salt Impurities in Water - Product Dimension: 29 x 20 x 2 cm; 250 Grams - Battery: 1 x 9V (Included)	1
Wind Mill	Wind Mill	1
Triangle Congruence	- Allow children to learn about the classification and congruency of triangles according to sides and angle with the help of this kit. This kit consists of 5 different types of congruent triangles. - Material: EVA Form	1
Prism Kit	- 1 x Glass Prism - 1 x Halogen light (Tungsten bulb:10-50 W) with holder	2
Drip Irrigation System & Sustainable use of Natural Resources - Gardening Kit	Kit Dimension - 24 x 18 x 7 cm Kit Weight - 0.5 Kg Kit Components - 1 x Drip Irrigation Kit for 10 Plants 1 x Water Pump - Working Voltage - 12V Power Rating - 3W 1 x HM10 Bluetooth Module 2 x 3W Red Power LED 2 x 3W Blue Power LED 2 x Light Dependent Resistor 1 x Soil Moisture Sensor Module - 5V Operation 15 x 1/4W 10 kOhm Resistor 20 x 20cm Male - Male Jumper Cable 20 x 20cm Male - Female Jumper Cable 20 x 20cm Female - Female Jumper Cable pH Paper - 80 Strip Pack 1 x Power Adapter - Voltage Output - 12V Current Rating - 2A	1
Fun Rocket Launcher	Pipe approximate size of 50 * 1.5 cm dia, 3 pipes each of length 16 - 22 cm depending upon range of product selected, stand of pipe of Rocket Launcher, foam based 3 rockets, air bag (pumping air), helps in understanding concept of pressure and rocket basic working, it can go approximately 10 - 12 ft high.	3

Solar Car	Chassis for car and solar pannel with wheel with motor Package Contains: 1 x Metal Chasis Material : Steel (Powder Coated) Features : Upto 75mm (3 inch) Wheels maximum Diameter supported	1
DIY Sound speaker	Product Name: Bluetooth Audio Amplifier Board Function type: Amplify audio Supply voltage: DC5V Bluetooth version: 5.0 Chip type: PAM8403	3
Advance Digital Solar System	Microprocessor based design with seven segment display for digital readings• Advanced level experiments to study behaviour of solar panel under different load• In - experiment measurement of solar panel parameters like- voltage, current and power by advanced microprocessor and showing them on seven segment display facilitates studying V-I characteristic of solar panel under different load• Selection of experiments by pushbuttons and guided message on display makes this kit very elegant and clutter-free• Facility to attach more experiment boards through socket makes this kit very flexible and economical• Separate adapter power supply for microprocessor enables measurement even when Solar panel is heavily loaded or shorted (Adapter supplied with the kit)• Advanced experiment devices like, DC water pump, LED stick light, variable potentiometer (varying load) and brushless DC fan are included in a separate compartment of the wooden box. Specifications:• Output Voltage- 6/12 V DC• Solar Power- 3-5 Watt	1
Telescope	Optical telescopes / Infrared telescopes Diameter: 50 mm, 90x, Monocular, with aluminum tripod stand, Focal adjustment, comes with 2 eyepiece, Optical Glass Lens and Metal Optical Tube, plastic case, Focal length: 360 mm	2
Human Body Parts and Structure	Material - EVA Foam Color - Multicolor Dimension - 30 x 25 x 7 cm	2
Fire extinguisher (handy units)	Powder Type Fire Extinguisher 2KG	2
Safety goggles (with/without LED torch)	Polycarbonate Safety goggles Clear lens with no tint	30
Safety Gloves Pairs	Latex Coating Gloves (Medium Size)	10
Safety Mask	Filtering efficiency ranging 80 percent when tested against 0.3-micron sodium chloride particle	20
Refurbishment of Lab	Asian plastic Paint with High-quality paint more evenly to create a smoother finish in all walls and top with repair of walls with putti and In Electrical fittings 4 power point on walls with 2 socket and one socket for Projector	1
Branding/Postering	Banners in lab for the STEM 4 poster and 3 banners and with safety banners, signage etc	1

<p>Laptop: Intel i3 / Ryzen R3 (or higher) or an equivalent product from other manufacturers.</p>	<p>intel i3/Ryzen R3 or higher</p> <ul style="list-style-type: none"> • 8 GB RAM · 3200 Mhz or higher · expandable to 32 GB (2 Physical DIMM), • 512 GB SSD or higher (Should be Dual Storage Capable), • Integrated Graphics, • Minimum 14-inch LED· backlit (1366 x 768 resolution) , • Body to Screen ratio should be higher than 80%, • HD webcam with Dual Microphone, • Port: HDMI · One(1), Headphone /microphone Combo : One (1), Power connector ·One(1), Wi·Fi 6 enabled, 2 USB 3.2, 1 x USB 3.2 Gen 1 (Type C), • Security: TPM 2.0, Security Lock Slot, • Battery: 3 cell 36 Whr or better, 1 Year Comprehensive Warranty including with 1 years warranty on battery & adapter, reputed brand, • Mandatory Industry Standard, Preinstall OEM Own Manageability Tool/Software for Asset Management, Patch Management, Power Management Settings, 3rd Party Application Deployment, Network Monitoring, Certifications: CE, FCC/UL Compliance, EPR, Energy Star. • OEM should have valid 18090001, 18050001, ISO20001, 18027001 & 18O14001.SA 8000, Window 11 Home 	<p>2</p>
<p>Projector 3200 lumen or more with LED/LCD/DLP (wifi enable), Lamp life >6000 hrs with reputed brand with 3 years warranty</p>	<ul style="list-style-type: none"> • DLP, Front & Rear Both XGA 1024 x768 • 4000 ANSI Lumens for Colour Light & White ·light Output Both or higher • Contrast Ratio : 20000: 1 • Aspect Ratio : 4:3 and 16:9 both • Throw Ratio : 1.44- 2.10 , Light Source · UHP/UHE/UHM, • Lamp life: Min.6000 Hrs. (Normal Mode) & 12000 hrs. • I/O connection Mode: HDMI PORT*2, USB·A • OEM Warranty: 1 year or 1000 hours on light source • OEM should have direct presence in India for minimum 20 years. 	<p>1</p>
<p>Projector screen /Mat finish White boar</p>	<p>Wall mounted projector screen size of 6ft x 4ft & mounting accessories</p>	<p>1</p>
<p>Speaker</p>	<ul style="list-style-type: none"> • Speakers with a balanced frequency response. • suitable power handling (aligned with the lab's amplifier), • sensitivity level around 55 dB • Durable construction 	<p>1</p>
<p>Projectors hanging kit (Projector mount Kit & VGA Cable)</p>	<p>Select a universal projector mount kit with adjustable arms and a VGA cable with sufficient length and high-quality shielding for the lab setup. Ensure compatibility with the projector model and consider cable management options for a tidy installation.</p>	<p>1</p>

Printer (B/W)	Product Dimensions · 21.56 x 12.42 x 42.57 cm; 2.36 Kilograms, Batteries 1 Lithium Ion batteries required. , Hardware Interface, USB , Max Printspeed Monochrome· 7.5 ppm , Max Printspeed Colour · 5.5 ppm , Printer Output Type· Colour, Printing Technology · Inkjet, Printer Media Size Maximum · A4, B5, A6, DL, envelope , Resolution · 4800 x 1200 DPI, 1200 x 1200 DPI , Connector Type · USB	1
Steel Almirah	<ul style="list-style-type: none"> • Size: 50"H x 30"W x 17 ' Depth • The Cup Board should be made of 26G. • CRCA sheet with two door and two fixed shelves. • The pedestal should be of 3" height. 	1

III. Robotics Lab Solution

Component name	Specification	Quantity
Arduino Nano	AT MEGA 328P	10
Breadboards	Solderless 400 pin breadboard	3
Berg Strip	Female Berg Strip 40 pins	10
Berg Strip	Male Berg Strip 40 pins	10
Capacitor	Multiple Capacitor in micro farad	5
Linear Voltage Regulator	7805	5
8*8 LED Matrix Module	Max7219 Dot LED Matrix Module Mcu Control LED Display	2
7 Segment Led Display	LED 4-Digit Display Module w/ Clock Point / 4-Pin Dupont Linefor Arduino (20cm)	4
Laser Diode	650Nm 6Mm 5V Dc 5Mw Mini Laser Dot Diode Module	5
Keypad	Universal 16 Key Switch Keypad	3
Joy Stick	Joystick Module for Arduino	3
Vibrating Motor	Vibrating Motor	5
Alligator Connectors	Red Colour Alligator Connectors	20
Alligator Connectors	Black Colour Alligator Connectors	20
Hookup Wires	Red & Black set 100 Meters (each 1)	2
Button Switch	Push Switch	5
Button Switch	Toggle Switch	5
Capacitive Touch Switch	Capacitive Touch Switch TTP223B	3
IR Sensors, Obstacle AVOIDER Sensor	Detection range, detection angle	16
Triple Axis Magnetometer	3-Axis Magnetoresistive Sensors, I2C Digital Interface, Integrated 12-bit ADC, Range of -8 to +8 Gauss, 160 Hz Maximum Output Rate	3
Humidity Sensor	Operating range: 20 - 95 % RH, Temperature: 0 - 60 Celsius, Power supply: 1.5V AC(Max sine), Operating frequency: 500Hz - 2kHz	4
MQ sensor series	MQ-3 Alcohol - Ethanol Sensor	2
	MQ-7 High Sensitivity CO Carbon Monoxide Sensor Detector	2
	MQ - 2 Smoke Detection	2
	MQ-6 liquefied petroleum gas sensor	2
	MQ-135 Air Quality Sensor	2

IR (transmitter) receiver -TSOP 1738	Switching rate – 38 KHz	3
Ultrasonic Sensor Module HC-SR-04 or compatible	Power supply Quiescent current, working current, Effectual angle,ranging distance Resolution, Working angle & dimension	10
Triple Axis accelerometer	3-axis sensing Small, low profile package, 4 mm × 4 mm × 1.45mm LFCSP, Low Power : 350 μ A (typical), Single-supply operation: 1.8 V to 3.6 V, Temperature stability	3
PIR Motion Detector Module	High digital pulse when motion detected, Low digital pulse whenidle /no motion detected, Sensitivity range (upto 6 m), Power supply: 5V – 12V	3
Pulse Rate Heart Sensor	Pulse Rate Sensor Finger Based wore on the finger or earlobe Working voltage 3-5V	2
Relay Module	5V 10A 2 Channel Relay Module	3
Big sound Microphone Module	Large Electret capsule sound module	2
Soil Moisture Sensor	FC – 28 with LM293 comparator	3
Touch Sensor	Capacitive Touch Sensor Module TTP22X Series	3
Metal touch sensor module	KY-036 or equivalent metal touch sensor module	3
Rain Drop Sensor	Rain Sensitive , Rain Drop Detection Sensor Module	3
Flex Sensor	Flex Sensor 2.2 Inches	2
Force Pressure Sensor	force sensitive resistor with a circular sensing area	2
Sound Sensor	Sound Sensor Module, Microphones module	3
RFID Reader – Tags	Current :13-26mA / DC 3.3V, Idle Current :10-13mA / DC 3.3V, Sleep Current<80uA Peak Current<30mA, Operating Frequency: 13.56MHz<30mA, Read range between 20 cm to 1 m	5

Stepper motor with Driver board	28BYJ-48 ULN2003 5V Stepper Motor + ULN2003 Driver Board	2
DC Motor	12 V DC Motor 150 RPM	8
Servo motors	Position Servo Angle based Metal Gear	2
	Continuous Metal Gear Servo 360	2
	Small Servo Plastic Gear	30
L298P Motor Driver	L298P Motor Driver Shield or relative Driver Shield	5
Servo Motor Testor	CCPM 3 channel Servo Tester	2
Robotics Chassis	2 wheel metal chassis, Thickness of this chassis should be 1.5mm, multiple holes for easy attachment of development board and sensors	3
Nano 328P Expansion Adapter Breakout Board IO Shield	The Nano 328P Expansion Adapter Breakout Board IO Shield acts as a breakout board for the Arduino Nano microcontroller. Each pinout includes 5V and GND pins for easy connection to sensors or servos. 14 I/O Pin (servo type with GND, power, and signal). 8 analog Pin with power output and GND. 6 PWM Pin. 1 Servo power input.5 I2C expansion Pin. 1 AREF output. 1 3.3V output.	4
3D Printer	FDM modelling technology Printing size 220*220*250mm Printing speed < 180 mm/sec, normal 30-60 mm/secNozzle diameter 0.4mm Hotbed temperature <= 100 degrees celcius Able to transfer file through online or offline modeInput power AC	1

	115v/230v Output power DC 24V 270W	
3D Pen	3D Pen should have nozzle for PLA. Should come with ready to use stencil for students Operating voltage : 220v AC or computable with any power bank In box should contain 50grms of filament, power cable, stencil, cord	2
Filament Storage Box	Plastic storage box of size 254mm x 254mm x 105mm. Should also have a lid on top.	3
Laptop	Processor-Intel i3 11th Gen RAM-Minimum 4GB DDR4 or more Display-14" HD Display with 1366*768 pixelresolution or more SSD 128 GB or More Operating System - Windows 11 Home	1
Combination Mini Plier	Size: 8 Inch	1
Needle nose plier	Size: 5 Inch	1
Hack Saw	Size: 6 Inches	1
Tweezer Set	6 Pc non magnetic Tweezer set Size 6 inch	1
Ball Pein Hammer	Ball Pein Hammer wight 0.2kg	1
C-Clamp	Metal Clamp 3 " Inch size	1
Screw driver set	30pc Multi-purpose screw driver	2
Wrench	Adjustable Universal Multi Wrench Spanner	1
Wire Strippers	Wire Stripper Cutter Plier With Spring -26x6x20 Cms (LxWxH)	2
Mini file set	6pc file set, 3 Inches	1
Flexible Cutting Mat	A3 Size With Marked Pattern And Grids (18" X 12")	1
Plastic Storage Drawer / Organizer	Plastic organiser with number of compartments 35 or equivalent	2
Plastic Storage Drawer / Organizer	Plastic organiser with number of compartments 8 or equivalent	2
Pegboard	Plastic Peg board System to mount tools on wall with 451 hanging holes aling with 38 hooks strong size should be 505*390mm	1
Hot glue gun	Works with standard 0.5 inch glue stick. Temp 230 to 280 degree Celsius.	2
Variable Wattage of SolderingIron	15-30 watts/230 volts	1
De-Soldering Pump	De-Soldering Pump	2
Soldering Tip	Compatible Soldering Tip – Bevel, Chisel, Conical – 4, each per kit	2
Soldering Iron TemperatureRange	280°C to 450°C	2
De-soldering Copper Braid	De-soldering Copper Braid (Solder wick 1.5mm * 2mm)	2

Adapters	DC power Adapter with 12V, 2A	3
Return measuring tape	Return measuring tape 5Mx19mm	1
Stainless Steel Rule	Stainless Steel 12" / 150 mm Rule	2
Digital Vernier Caliper	150 mm / 6" Digital Vernier Caliper	1
DIY Paper Microscope	DIY Paper Microscope Magnification range 100 x to 2000x	2
Telescope	Optical Tube length 360 millimeters, Objective Lens Diameter 50millimeters, Item weight not more than 760 grams, Working Height: Approx. 34cm , Optical Aperture: 50mm, Focal Length: 360mm, Inclined Mirror: 90°, Color: Silver Material: Aluminum Alloy & Plastic Magnification: Max. 90 Times	1
Cable tie	Big size in pack of 100 each	5
Sand Paper	Various Grit-80,100, 120,200,300 of each 1	5
Power Strip Adaptors	5 Plug with Standard Quality Extension	2
Bulb Holders	Regular Hanging Bulb holder	2
Standard first aid kit	Standard First aid kit portable container	1
Safety goggles	Polycarbonate Safety Goggles Clear lens with no tint	10
Safety Gloves Pairs	Latex Coating Gloves (Medium Size)	10
Safety Mask	Standard safety mask.	10
Plastic box 1	High quality transparent plastic box of size 12.5 x 3.5 x 8.5 cm with locks	10
Plastic box 2	High quality transparent plastic box of size 19 x 12.5 4.4 cm withlocks	10
Plastic box 3	High quality transparent plastic box Size 29 x 19 x 7 cm with locks	10
Plastic box 4	High quality transparent plastic box of Size 12 x 10 x 5 cm with locks	10
Plastic box 5	High quality transparent plastic box of Size 8 x 7 x 3.5 cm with locks	10

AR cards	English A to Z The Kit should have a app live on play store.After scanning everycard student should be able to see different 3d objects with informative audio.	2
AR cards	Number From 0 to 30 The Kit should have a app live on play store.After scanning everycard student should be able to see different 3d objects with informative audio.	2
AR cards	Hindi varnamala 45 different cards The Kit should have a app live on play store.After scanning card student should be able to see different 3d objects with informativeaudio in hindi.	2
AR cards	13 different shapes and colors The Kit should have a app live on play store.After scanning everycard student should be able to see different 3d objects with informative audio.	2
World Globe with AR	"AR app takes student on an augmented reality-based journey around the world. Fun. Interactive. Educational. Learn Geography, History, Environmental Science, and more(No borders and no names on Globe) It should be compatible with Android and iOS devices" Ink stamp of size 35 x 25mm A toy passport book with stickers of different countries.	1
AR based maps	kit should include 4 or more World maps showing fun facts about continents, animals, oceans, countries, flags, currencies, monuments. It shou;d also have 2 or more india maps showing kit should include 4 or more showing facts about States, Capitals, Monuments, Wildlife, Rivers, Mountains, and much more... The kit should have a mobile applications for android and ios. Kit should include a instruction manual to help understand the working of the kit.	1
VR headset	VR Headgear/ Devices Display: 2.5K Fast-LCD HD screen RAM: 3 GB or more Storage: 32 GB Internal Storage Processor: Snapdragon SXR1 or above Lens: Customized Fresnel lens Battery: 4000mAh or above Controller: 3 DoF Bluetooth Controller Android 8.1, Audio Jack 3.5 mm Micro USB, SDCard slot for storage expansion,Return & volume control Surround Sound System, One-tap tab Pad on the headset, Gravity sensor, compass, gyroscope.	1
Preloaded content in VR devices with software	Curriculum of std 5 to 10 Preloaded on VR covering more than 250 topics . Covering Science, physics , chemistry, Biology based on NCERT syllabus.Tour videos of Indian Monuments Like statueof unity and taj mahal. Preloaded software to help teacher select standard, class,subject and chapters for easy use.	1

2 piece connector	2 piece multipurpose connector of size 15mm x 0.8mm compatible with brick board made of high quality ABS material	106
3 piece connector	3 piece multipurpose connector of size 21mm x 0.8mm compatible with brick board made of high quality ABS material	62
Hollow Spacer	10mm diameter and 10mm thickness plastic hollow spacer made of high quality ABS material	96
T connector	15mm x 10mm T connector compatible with the provided shafts such that the vertical part of the T-shape has a plus shape hole and the horizontal part of the T-shape has a round shape hole and made of high quality ABS material	64
1 x 3 (2 way Free connector) - 2	20mm x 0.8mm Brick connector such that after connecting the brick/connector should move freely and made of high quality ABS material	32
3x1 Plus connector	30mm x 10mm x 10mm Connector. Should have a Plus shape in center and should be compatible with the plus shape shafts and made of high quality ABS material	2
3 x 1 brick	30mm x 10mm x 10mm Multipurpose connector bricks having 1 row of 3 holes and made of high quality ABS material	20
5 x 1 brick - A	50mm x 10mm x 10mm Multipurpose connector bricks having 1 row of 5 holes and made of high quality ABS material	32
5 x 1 brick - B	50mm x 10mm x 10mm Should have a spiral slot at the center to insert the Screw shaft and made of high quality ABS material	2
7 x 1 Brick	70mm x 10mm x 10mm Multipurpose connector bricks having 1 row of 7 holes and made of high quality ABS material	20
11 x 1 Brick	110mm x 10mm x 10mm Multipurpose connector bricks having 1 row of 11 holes and made of high quality ABS material	22
Wheel with Rubber grip	Plastic wheel of 44mm diameter and 24mm thickness compatible with provided shaft, Rubber grip for the provided wheel and made of high quality ABS material	18
Shaft - a	Minimum length 60mm Plastic shaft compatible with provided motor case and made of high quality ABS material	4
Shaft - b	Minimum length 100mm Plastic shaft compatible with provided motor case and made of high quality ABS material	8
Disassembling tool	90 x 15 x 15 mm disassembling tool. Compatible for 2 piece connector and T connectors and made of high quality ABS material	4
11 x 7 Brick Board	111mm x 70mm x 10mm Multipurpose base brick for connectors having 77 holes compatible with provided bricks and other provided connectors and made of high quality ABS material	8
Joiner (plane)	20mm x 10mm x 10mm Joiner/Connector having two plus shape protrusion for joining which are compatible with provided bricks and made of high quality ABS material	14

Right angle connector	30mm x 10mm x 10mm connector having two holes and 1 mid plus shape for joining which are compatible with provided bricks and made of high quality ABS material	10
Spur Gear 1	20mm diameter and 10mm thickness plastic spur gear compatible with provided shaft and made of high quality ABS material	14
Spur Gear 2	60mm diameter and 10mm thickness Plastic spur gear compatible with provided motor shaft and made of high quality ABS material	12
7 x 5 x 7 U shape brick	76mm x 50mm x 10mm Multipurpose bricks having 7 holes, 5 hole and 7 holes in U shape and having a connecting protrusion on two ends of the U shape and two corresponding holes on the opposite end from the protrusion and made of high quality ABS material	16
13 x 5 x 13 U shape brick	140mm x 50mm x 10mm Multipurpose bricks having 13 holes, 5 hole and 13 holes in U shape and having a connecting protrusion on two ends of the U shape and two corresponding holes on the opposite end from the protrusion. and made of high quality ABS material	8
Power Block	35mm x 30mm x 12mm Power block. Should have a 9V battery jack. also can be powered with 5v powerbank through a USB cable. Should be compatible with the 2 piece connector. The block should have a 4 pin bug strip slot as output	2
Motor Block	35mm x 30mm x 12mm Motor block. Should have a JST pin to connect the motor. Male and female 4 pin bug strip for input and output. A slide switch to control the direction. Should be compatible with the 2 piece connector. Slide switch to turn On and Off.	4
IR sensor block	27mm x 26mm x 14mm IR sensor block. Should have a JST connector for input. Should be compatible with the 2 piece connector. Male and female 4 pin bug strip for input and output.	4
Distance block	35mm x 30mm x 12mm Distance block. Should be compatible with 2 piece connector. Should have a JST connector and a variable knob. Male and female 4 pin bug strip for input and output.	4
LED block	35mm x 30mm x 12mm LED block. Male and female 4 pin bug strip for input and output. Should be compatible with the 2 piece connector.	2
Buzzer block	35mm x 30mm x 12mm small Buzzer block. Male and female 4 pin bug strip for input and output. Should be compatible with the 2 piece connector.	2
NOT gate block	35mm x 30mm x 12mm NOT gate block. Male and female 4 pin bug strip for input and output. Should be compatible with the 2 piece connector.	2
JST wires	JST wire connector of minimum length 15cm .	4
Gear Box with motor - a	80.5mm x 28.75mm x 48.5mm 1A) Plastic Gear casing for toy motor, such that casing has provision for a side shaft 1B) Gear mechanism such that students should be able to see the inner gear mechanism 1C) Standard 3V DC toy motor All of the above should be provided in assembled form	4

Gear Box with motor with battery holder - b	80.5mm x 28.75mm x 48.5mm 1A) Plastic Gear casing for toy motor, such that casing has provision for a side shaft 1B) Gear mechanism such that students should be able to see the inner gear mechanism 1C) Standard 3V DC toy motor All of the above should be provided in assembled form Should have a 2 AA battery closed holder and a slide switch to control the direction.	2
Shaft - c	Minimum length 170mm Plastic shaft compatible with provided motor case	6
Screw shaft	120mm x 8mm spiral screw shaft compatible with 5 x 1 brick – B.	2
Zig zag connector	50mm x 10mm x 10mm Compatible with the gears and Brick board.	6
Pulley	25mm dia x 11mm pulley block	2
Idler gear	20mm diameter and 10mm thickness plastic spur gear	4
MDF cutout set 1	Set of 3 sheets MDF model cutouts 1 sheets of size 12x9x0.15 inch 1 sheet of size 10x9x0.25 inch 1 sheet of size 5.5x9x0.25 inch	1
Foam cutout	Foam cutout of size 13x10.6x0.4 cm	1
Rubber band	Plastic rubber bands of 3 different sizes	50
Plastic shaft	Plastic hollow shaft of 0.6 cm dia of 3 different sizes	2
Animation cutouts	Set different films for animation	3
Hook Spring	Spring of height 3.1cm and dia 1.4cm And having a hook on each side of dia 1.4cm	1
Wax color	Wax crayon of white color	1
Mechanical Concept learning Manual	Printed manual explaining different mechanical concepts with the help of a live project	1
Mechanical construction Manual 1	Printed manual explaining different mechanical concepts with the help of a 10+ Projects	2
Advance Robotics Manual 1	Printed manual explaining different Mechanical and Electronics concepts with the help of a 10+ Projects	4
	Add on single peripheral board containing onboard 8 pushbuttons, 8 LED's, motor driver L293D, resistors, capacitors, Voltage regulator, relay, buzzer, diode, transistor, potentiometer, RGB LED, 2 digit 7 segment display, power indicator LED, on/offswitch. The board should work on 12v DC supply. onboard slots for bluetooth, Wif, temperature sensor and LCD	2

<p>Non programmable DIY board 1.0 with manual (For std 5 and 6)</p>	<p>display. Manual should contain project both in English and Hindi language:</p> <ol style="list-style-type: none"> 1. Light activated Robot 2. Obstacle avoidance robot 3. Object follower robot 4. Sound activated robot <p>Black line follower robot</p>	
<p>Programmable DIY Board 2.0 with manual (For std 7 to 8)</p>	<p>Add on single peripheral board containing onboard 8 pushbuttons, 8 LED's, motor driver L293D, resistors, capacitors, Voltage regulator, relay, buzzer, diode, transistor, potentiometer, RGB LED, 2 digit 7 segment display, power indicator LED, on/off switch. The board should work on 12v DC supply. onboard slots for bluetooth, Wif, temperature sensor and LCD display. Manual should contain project both in English and Hindi language:</p> <ol style="list-style-type: none"> 1. Robot Controlled with Joystick 2. Advanced wall follower robot 3. Bluetooth controlled robot 4. Voice controlled Robot <p>Path planning Robot</p>	2
<p>Programmable DIY Board 3.0 with manual (For std 9 to 10)</p>	<p>Add on single peripheral board containing onboard 8 pushbuttons, 8 LED's, motor driver L293D, resistors, capacitors, Voltage regulator, relay, buzzer, diode, transistor, potentiometer, RGB LED, 2 digit 7 segment display, power indicator LED, on/off switch. The board should work on 12v DC supply. onboard slots for bluetooth, Wif, temperature sensor and LCD display. Manual should contain project both in English and Hindi language:</p> <ol style="list-style-type: none"> 1. Wi-Fi Controlled robot 2. Soil moisture monitoring robot 3. Automatic rain sensing robot 4. Automatic plant watering robot <p>Smart environment monitoring and display robot</p>	2
<p>Programmable Brick brain</p>	<p>Programmable brain with inbuilt Bluetooth capability</p> <ol style="list-style-type: none"> ii. Inbuilt 8X2 LCD display to indicate various parameters iii. On Board 8 or more LEDs to indicate various parameters iv. Connection of Sensors and Motors with prefab high-quality RJ 11/RJ45 Cables v. Connection of Minimum 4 Sensors and 4 Actuators/Motors with one programmable brain using RJ11/RJ45 Connectors vi. Provision to Connect Wired Remote Controller with Programmable Brain vii. Graphical Programming Language Software with drag and drop blocks based program to help students learn programming concepts viii. It Should Support Software remote through Bluetooth ix. Rechargeable Battery pack <p>It should allow us to use standard Sensors Without RJ 11/RJ45 Ports to be connected with BRICK /BRAIN.</p>	1

Ultrasonic sensor brick	The ultrasonic sensor should have a RJ11 connector and should be compatible with the programmable brain unit	1
Humidity sensor brick	The Humidity sensor should have a RJ11 connector and should be compatible with the programmable brain unit	1
IR Sensor brick	The IR sensor should have a RJ11 connector and should be compatible with the programmable brain unit	1
LDR Sensor	The LDR sensor should have a RJ11 connector and should be compatible with the programmable brain unit	1
Sound Sensor	The Sound sensor should have a RJ11 connector and should be compatible with the programmable brain unit	1
Connecting Cables	RJ 11 cable for connecting sensor with brick brain	2
High Quality Construction Set	<p>Metal construction set should include:</p> <ul style="list-style-type: none"> i. Long U Strips ii. Short U Strips iii. Long L Strips iv. Short L Strips v. Flexible Strips vi. Long Rectangular Plates vii. Short Rectangular Plates viii. Square Plates ix. L Angle x. Nuts and Bolts xi. Castor Wheels xii. Axle Shafts Long xiii. Axle Shafts Short <p>The kit should also include</p> <ul style="list-style-type: none"> i. 100 RPM Geared Motors with Variable Speed ii. Wheels iii. Gear Pack (Small , Medium , Large) iv. Hook v Controller Cable vi. Wired Remote which allows you to move in four directions <p>Charger</p>	1 set
Body Part 1.1	50 x 85 x 85 mm body with interlocking system to connect other body parts, should have slots to fix different sensor and actuator	2
Body Part 1.2	50 x 83 x 70 mm body with interlocking system to connect other bodyparts, should have slots to fix different sensor and actuator	2
Body Part 1.3	85 x 85 x 7 mm body with interlocking system to connect other body parts	2
Body Part 1.4	88 x 88 x40 mm body with interlocking system to connect other body parts, should have slots to fix different sensor and actuator	2
Body Part 1.5	48 x 22 x 38 mm body with interlocking system to connect other body parts, should have slots to fix different actuator, (set of 2)	2

Body Part 1.6	60 x 40 x 22 mm body with interlocking system to connect other body parts, should have slots to fix different actuator (Set of 2)	2
Body Part 1.7	39 x 15 x 16 mm body with interlocking system to connect other body parts, should have slots to fix different actuator (set of 2)	2
Body Part 1.8	47 x 17 x 15 mm body with interlocking system to connect other body parts (set of 2)	2
Body Part 2.1	123mm x 123mm x 30mm body with interlocking system to connect other body parts and base should be compatible to hold multiple actuators	2
Body Part 2.2	22mm x 80mm x 20mm body with interlocking system to connect other body parts and base should be compatible to hold actuators	8
Body Part 2.3	30mm x 45mm x 16mm U shape body with interlocking system to connect other body parts and base should be compatible to hold actuators	16
USB Type C Rechargeable Battery 650mah	<p>The batteries used by the kit must be one of the standard types: AAA/AA/9V PP3</p> <p>The rechargeable batteries must be Li-Polymer type and chargeable directly using type C charger</p> <p>The rechargeable batteries must be BIS certified</p> <p>The rechargeable batteries must have internal charging indicator to show charging progress or charging completed indication</p> <p>Kit must have mechanism to replace batteries only. While replacing batteries, there must not be any need to replace other part/enclosure.</p>	2
Power Supply module	Power supply module of size 10cmx3cmx3.7cm (LxWxH) can be used with rechargeable battery or DC adapter. Battery should have an onboard power LED. It should have a power regulator to manage fluctuation.	2
Buzzer module	Small size piezo buzzer programmable module which works on 5V operating voltage and compatible with other modules. It should have capability to generate different tones Dimension: 4.5cmx3cmx2.7cm (LxWxH)	2
Connectivity sensor module	Connectivity sensor module should work on 5V operating Voltage and can be connected with other modules. It should have 2pin connector with 30cm long wire and crocodile clips at the end.	2
DC Motor module	DC motor module should have 60RPM motor which works with operating Voltage of 5V to 9V. Speed and directions can be controlled through programming. It should have standard 2pin connector. Dimension: 8.2cmx3.5cmx4.5cm (LxWxH)	2
Light module	Light module should work on operating Voltage of 5V and compatible with other modules. It should be a programmable block with white light as output Dimension: 3.5cmx3cmx2cm (LxWxH)	2
Light Sensor module	Light sensor module should have capacity to detect light intensity in surrounding with detection range of 0 to 99. It should be programmable and has universal 3 pin connector. Dimensions: 3cmx2cmx1.8cm (LxWxH)	2

Moisture Sensor module	Moisture sensor module has capacity to detect moisture present in the soil. It can be programmed and has universal 3 pin connector. It should work on 5V input power supply. Dimensions: 6.3cmx1cmx0.8cm (LxWxH)	2
Motion Sensor module	Motion sensor has capacity to detect motion with a sensitivity detection range of 0 to 99. It should be programmable and has universal 3 pin connector. It should work on 5V input power supply. Dimensions: 3.7cmx2cmx0.6cm (LxWxH)	2
Programmable AI board	Board should be based on ESP32 dual core programmable microcontroller board with inbuilt Bluetooth & WiFi capability. It should have 2 local input ports, 2 local output ports, 4 Sensor Ports, 4 DC motor Port, 4 Servo motor Port & 2 I2C Port to connect devices. Board should work on 5V input power supply provided by power supply module. The board should be compatible with other blocks as well. The board must contain wireless component to be able to carry our remote execution projects. The programming environment shall be operable without the need of internet connectivity Board can be programmed using block based, python based & Arduino C programming. Dimensions: 6.5cmx6.5cmx3.3cm (LxWxH)	2
Obstacle sensor module	Obstacle sensor should give values in range of 0 to 99. It should be programmable and has universal 3 pin connector. It works on 5V input power supply. Dimensions: 3cmx3cmx2cm (LxWxH)	4
Sensor Base with threshold module	Non programmable block with port provided to connect sensors. Dimensions: 4.5cmx3cmx4cm (LxWxH)	2
Servo Motor module	Servo motor should move it's shaft from 0 to 180 degree. It should operate on 5V power supply	2
4WD chassis	4 wheel metal chassis, Thickness of this chassis should be 1.5 mm, multiple holes for easy attachment of development board and sensors	3
Caster Wheel	360 degree freely	6
DPDT switch box	2 way DPDT switch box	3
DPDT switches	DPDT switches	6
Ribbon wire	6 core ribbon wire 1 meter length	3
PVC connector	Standard PVC connectors for connecting 2 wires (set of 6)	3
Big wheels	28 mm wheel of overall diameter 65mm compatible with BO motors	12
Acrylic cube	Size 100 x 100 x 105 mm with acrylic stand of size 240 x 27mm	1

Explorer Robot	A programmable Robot which can be program using mobile phone application and by using programming puzzle pieces .can be controlled by joystick mode, voice commands or by drawing path on mobile phone application .should have a display to show 10 or more facial expressions .can play nursery rhymes and fairy tales. Has directional arrow buttons on it along with play and power button.	1
25 Programming Puzzle Pieces	25 Cards which can be use for making different logical paths and helps to do visual programming. Robot will run on this path automatically depending on cards used.	1
USB cable	USB cable for explorer robot	1
Manual	A manual with detail guidance on how to use robot must include description of cards with their logic and a project guid with nine plus project.	1
DIY Electronics and Robotics Book 1	E-book for assembly of the robot	1
DIY Electronics and Robotics Book 2	E-book for assembly of the robot	1
Advance robotics and AI Manual	Printed book explaining connection of the circuit and AI projects	1
Easy STEM Circuit Kit	MDF material electronics learning kits to build multiple DIY electronics projects, Kit 27.5cm X 26cm X should have on board 2-AA Battery Holder, , Red Led -1, Yellow Led-1, RGB Led-1, 3V Motor -1, Plastic small fan-1, 5v small buzzer-1, 2pin On Off Switch-1, 2 pin push button-1, Reed Switch -1, Touch switch-1, NPN Transistor -1, PNP Transistor -1, 100Ω Resistor-1, 1K Ω Resistor-1, 10K Ω Resistor -1, 10K Potentiometer with cap – 1, LDR Sensor -1, 470μF Capacitor -1, 10 μF Capacitor -1, Tapered Spring – 40+, IN4007 Diode-1 10 Single stand Connecting Wires(length 12 inch), Magnet-1	3
One snap connector	Single snap point	2
Two snap connector	4.0 x 1.3 cm snap connector with 2 points	8
Three snap connector	7 x 1.3 cm snap connector with 3 points	6
Four snap connector	9.5 x 1.3 cm snap connector with 4 points	4
Slide switch	Slide switch 7.0 x 2.1 x 1.0 cm with 1 snap connector on each side	2
Button switch	pushbutton 7.0 x 2.1 x 1.3 cm with 1 snap connector on each side	2
Red Led	LED 7.0 x 2.1 x 1.2 cm with 1 snap connector on each side	2

Blue LED	Lamp 7.0 x 2.1 x 3.0 cm with 1 snap connector on each side	2
2 AA battery holder	7.0 x 5.8 x 1.7 cm cube to holde 2 AA battery with 1 snap connector on each side	4
Loudspeaker	2.2 x7.0 x 6.7 cm speaker for playing music with 1 snap connector on each side	2
Speaker IC	IC of size 7.3x4.5x1.6 cm with 1 snap connector on each side	2
High speed toy Motor	Motor of size 7.3x4.5x2.3 cm with 1 snap connector on each side	2
IC for power amplification	IC of size 7.3x4.5x1.6 cm with 1 snap connector on each side	2
Frequency modulation IC	IC of size 7.3x4.5x1.6 cm with 1 snap connector on each side	2
Mounting plate	Glass mounting plate for assembling the circuit 22.5 x 16.5 cm	2
Plastic fan	Plastic fan compatible with High speed toy Motor of size 80mm	2
BUZZER toy block	36mmX16mm buzzer which have positive and negative terminal.	2
Colorful Toy Fan	66mm Radius fan with different Color like Red, Green, Yellow, Blue, Orange, purple.	2
Red LED toy block	40mmX16mm Red LED With positive and negative terminal.	4
Green LED toy block	40mmX16mm Green LED With positive and negative terminal.	2
Capacitor toy block	40mmX12mm 470 μ F Capacitor with positive and negative terminal	4
10k resistor toy block	40mmX12mm 10k resistor with two terminals.	2
3.3k resistor toy block	40mmX12mm 3.3k resistor with two terminals.	2
20k resistor toy block	40mmX12mm 20k resistor with two terminals.	2
Push Button Switch toy block	43mmX15mm Push Button Switch with two terminals compatiblefor Circuit.	6
Slide Switch toy block	40mmX12mm Slide Switch with two terminals compatible for Circuit.	2
Light Sensor toy block	37mmX13mm LDR Light Sensor with two terminals compatible for Circuit.	2

Potentiometer toy block	Potentiometer with three terminal that's compatible with Circuit.	2
Motor toy block	15mmX35mm motor with two terminal that's compatible with Circuit.	2
Mounting Tools	5 Mounting tools for Mounting different component.	10
Battery Box toy block	Battery Box For Two AA Battery that provide Power Supply to Circuits	2
Aligator Clip Wire	one pair of aligator clip provided for Clip different components.	2
Jumper Wire	Jumper Wire for connected different components	6
21 x 21 Brick Board (2)	210mm x 210mm x 10mm Multipurpose base brick for connectorshaving 441 holes compatible with provided bricks and other provided connectors	2
Basic Electronics Book 1	Printed manual with 30+ Projects on basic electronics	2
Basic Electronics Book 2	Printed manual with 50+ Projects on basic electronics	3
Block coding software	An open-source block-based coding software that works in offline mode on Windows PC and Laptop. The software should be able to teach students basic logic building and help them develop different games, stories, animations, etc. The software should be compatible with microcontrollers like Arduino UNO, Arduino Nano, Arduino Mega, NodemCU, ESP32, Microbit, and many other boards. along with the microcontroller, it should also have separate extensions to use different sensors and actuators. It should also have a feature to convert Block coding to an Embedded C program.	1
Visual programming/coding environment	A visual programming/coding environment that must be able to operate from windows, Android, iOS and Linux operating system based computing device. The programming environment shall be operable without the need of internet connectivity. Visual coding environment must have ability to generate equivalent C++ and python code It shall be compatible with different microcontrollers, actuators and sensors. The software should also be compatible with Programmable AIboard. The Android application development environment must include or provide link to freely available very commonly used building blocks such as for Telephony, speech recognition, speech synthesis, text messaging, storing and retrieving information on cloud, access to Android device sensors and other resources. The software and App provide support for implementation of internet of things (IoT) & AI.	1

Flight controller	<p>Controller should be based on ESP 12F with 32 bit arm Cortex M4</p> <p>Frequency: 72MHzFlash: 256kb Input voltage: 2.8 - 5.5 v Current rating: 2A</p> <p>On board sensors : accelerometer, Magnetometer, barometer Should have slots to connect motors The controller should be reprogrammable using block based software and text type software.</p>	1
Frame	<p>ABS Plastic frame size 100 x 100 mm Should have space to hold the controller with screw and slots to insert 4 motors The frame should have a top casing to cover the controller</p>	1
Propeller guards	Set of 4 propeller guards Compatible for propeller of size 55mm	1
Propellers	<p>Set of 4 propellers (2 clockwise and 2 counter clockwise) made of ABS Size 55mm Compatible with high speed motor</p>	1
High speed motor	Brushed coreless motors of size 20 x 7 mm With no load speed 50000rpm	4
Satellite Model	Acrylic satellite cube of Size 100 x 100 x 105 mm with acrylic stand of size 240 x 27mm	2
Lab White wash	Room should be colored	1
Table	<p>Laminated wood on top of the table Wood and MS legs Size :6x3 ft. Rubber Support on each legs</p>	2
Table	<p>Laminated wood on top of the table Wood and MS legs Size : 4x2 feet Rubber Support on each legs</p>	1
Stools	Stool made of high quality plastic of size 485 x285 x 285 mm	20
Cupboard	<p>Material: Metal Type: Bookshelf Furniture No. Of Shelves: 4 Shelves Length (In Inch): 60" Breadth (In Inch): 30" Depth (In Inch) :15" Depth (In Inches): 15" Finishing Paint Coated</p>	1
Section chart	A4 size section charts for Robotics, 3D printer, Mechanical equipments, DIY, AR & VR section.	6
Flex and Poster banner	For decoration of lab	1
Arduino UNO USB Cables	USB Cable Set (A to B)	5
Arduino Nano USB Cables	USB CABLE SEST(MINI, 12 INCH OR MORE)	10

Micro USB Cable	Compatible Micro USB Cable	2
Battery	Li ion rechargeable battery of 2000 to 2500 mAh	15
Battery holder	2 slot Li ion battery holder	8
Battery charger	Compatible charger for Li ion battery	2
Multiple Resistors	1 KIT CONTAIN 30 CARBON FILM RESISTOR OF 20 DIFFERENT RESISTOR	5
Bluetooth	HC 05 Working voltage 5 Volt	3
LDR Module	Photosensitive LDR Light Sensor Module	5
Active Buzzer	small 5 volt	5
Active buzzer	big 5 volt	5
Motor driver	L293d	10
DC PLASTIC GEAR MOTOR	L shape Side Shaft BO Motor	20
BO wheels	Plastic wheels with rubber tire. overall diameter 65mm	20
Jumper Cable	Male-Male	200
Jumper Cable	Male-Female	160
Jumper Cable	Female-Female	160
RGB LEDs	Regular 5mm 3-5 volt Range	50
LEDs (Red)	Regular 5mm 3-5 volt Range	100
LEDs (Green)	Regular 5mm 3-5 volt Range	100
LEDs (Blue)	Regular 5mm 3-5 volt Range	100
LEDs (Yellow)	Regular 5mm 3-5 volt Range	100

LEDs (White)	Regular 5mm 3-5 volt Range	100
Filament for 3D printer	Any Color Filament 1kg	3
Hacksaw blades	Size: 6 Inches	10
Soldering Wire	20/22 AWG soldering Wire with rosin core flux (50g Grams)	4
Cardboard	Rectangular white cardboard of size 485 x 365 mm	10
Foam core boards	rectangular foam Board of size 300 x 450mm. and thickness 3mm	10
Strings	20m spool of thick strings various color	5
Rubber band	Standard elastic rubber band of size 2inch	50
popsicle sticks	Standard wooden popsicle sticks	50
wood glue	Adhesive glue of 500ml	1
Scissor	Size: 6.5 inch	1
Tempera colors	Pack of 12 different colors of 3ml each. should have a brush as well.	1
Cutter	Standard 2 inch cutter	2
Balsa wood	Thickness 2mm and size 500 x 100 mm	2
Scale	Plastic ruler of size 30cm	1
Clay	Non toxic soft clay of 7 different shades. Pack of 100gm	1
Food pipe	Pipe for water pump module (1m)	2
Node MCU	WIFI Internet Development Board Module Node MCU I2C, 1 wire, plug and play	3
Arduino UNO	Hardware development board with Memory and IO ports	5
Breadboards	Solderless 800 pin breadboard	3

16x2 LCD display With I2C	Dot matrix LDC display with 16 characters x 2 lines	3
Potentiometer	10 k ohm	5
10000 Mh 5 volt Power Bank	10000 Mh 5 volt Power Bank	2
Water Pump module	DC12V 3W Submersible Water Pump	2
TEMPERATURE AND HUMIDITY SENSOR MODULE	DHT 11	5
Soldering Flux	Soldering Flux (Paste) 10 grams,	2
Adapters	DC power Adapter with 5V, 2A	3
Digital Multi Meter	Digital Multi Meter Voltage Current Resistance-7 functions + 19 ranges to cover DC voltage 200mV to 1kV, AC voltage 200 V - 750 V, DC current 200 μ A - 10 A, Resistance 200 -2 M Ohm and Transistor & diode test.	2
Glue Sticks	11 mm x 200mm Hot Melt Glue Stick	40
Nuts and Bolts and screw	Specs- M4 X 12MM M4X 20MM, M5X16MM,M5X25MM, M6X20MM	100
Electric Wires	Twisted Red black pair 5m	2

Annexure XX
TENDER CHECKLIST

S. No.	Description	Yes/No with Page No.
1.	BID SECURITY(EMD) Whether the bidder has attached the Bid Security as per format of the Bid Security form?	
2.	Amount of Bid Security (EMD) as per bid requirement or not?	
3.	Form in which Bid security (EMD) enclosed (Bank Guarantee/Demand Draft/NEFT or RTGS in EdCIL Account).	
4.	Date of issue of Demand Draft / NEFT or RTGS for EMD	
5.	Bid validity 180 days beyond the last date of tender opening or not?	
6.	Legal Status/ Constitution of firm (any document & partnership deed etc.)	
7.	Whether the bidder has quoted for all the items in the financial bid for solution 1?	
8.	Whether the bidder has quoted for all the items in the financial bid for solution 2?	
9.	Whether the bidder has quoted for all the items in the financial bid for solution 3?	
10.	Whether price as per Financial Bid quoted or not?	
11.	Whether Project Timeline as per bid agreed or not?	
12.	Payment terms as per bid agreed or not?	
13.	Undertaking as per Annexure – III or not?	
14.	A brief write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the above said work is attached or not?	
15.	Letter of financial proposal signed and enclosed with the financial bid offer	
16.	Signed copy of Pre-contract integrity pact	

17.	Letter of Bid submission	
18.	Signed copy of the tender document submitted	
19.	Power of Attorney	
20.	Declaration Sheet with all the balance of required credentials	
21.	Valid registration certificate issued by NSIC/MSME or other appropriate government authorities (For MSMES and start-ups only)	
	Pre-qualification Criteria	
22.	The bidder must submit Declaration Sheet as per Annexure II.	
23.	The bidder should have valid GST and PAN number.	
24.	<p>The Bidder should be registered under Companies Act, 1956 and 2013 in India and should have been in operation in India for at least last 8 years as on the date of submission of the bid. Consortium of companies/ firms is not allowed.</p> <p>For MSME/NSIC registered bidder: The bidder should be a company registered in India under Companies Act 1956 or 2013 or Proprietorship /Partnership Firm with their registered office in India in operation for at least 5 years preceding the bid due date.</p>	
25.	The BIDDER as well as any of its subsidiaries / affiliates should not have been blacklisted by the Central Government, State Governments, PSU or any Government Corporations in India, preceding bid due date.	
26.	Technical Bid Submission Letter as per Annexure IX.	
27.	Technical Compliance as per Annexure I.	
28.	If the Bidder is not OEM of the products, then bidder should have OEM authorization certificate. Such authorization is needed for hardware and software from the respective Original Equipment Manufacturers (OEM) for selling and supporting the components offered.	
29.	<p>Bidder must have minimum average annual Turnover of 10 crores during the last three financial year i.e., 2020-21, 2021-22 and 2022-23.</p> <p>For MSME/NSIC registered bidder Bidder must have minimum average annual Turnover of 8 crores during the last three financial year i.e., 2020-21, 2021-22 and 2022-23.</p>	
30.	The Bidder should have positive net worth for last three financial years i.e., 2020-21, 2021-22 and 2022-23.	
31.	<p>For Solution 1 & Solution 2 Bidder having experience in supply & execution of Atal Tinkering Labs/</p>	

	<p>STEM in government schools only of India during last 3 FY:</p> <ol style="list-style-type: none"> 1. Executed three works of similar nature costing not less than the value of 4 Crore. 2. Executed two works of similar nature costing not less than the value of 5 Crore. 3. Executed one work of similar nature costing not less than the value of 8 Crore. <p>For Solution 3 Bidder having experience in supply & execution of Robotics Lab in government schools only of India during last 3 FY:</p> <ol style="list-style-type: none"> 1. Executed two works of similar nature costing not less than the value of 4 Crore. 2. Executed one work of similar nature costing not less than the value of 5 Crore. <p><u>For MSME/ NSIC registered bidder</u></p> <p>For Solution 1 & Solution 2 Bidder having experience in supply & execution of Atal Tinkering Labs/ STEM in government schools only of India during last 3 FY:</p> <ol style="list-style-type: none"> 1. Executed three works of similar nature costing not less than the value of 3 Crore. 2. Executed two works of similar nature costing not less than the value of 4 Crore. 3. Executed one work of similar nature costing not less than the value of 7 Crore. <p>For Solution 3 Bidder having experience in supply & execution of Robotics Lab in government schools only of India during last 3 FY:</p> <ol style="list-style-type: none"> 1. Executed two works of similar nature costing not less than the value of 3 Crore. 2. Executed one work of similar nature costing not less than the value of 4 Crore. 	
32.	The bidder should be an ISO 9001:2015, ISO 20001 & ISO 27001 certified company.	
33.	Bidder is required to submit samples for scrutiny and samples	

Annexure XXI
Pre-Bid Query Format

Queries should be submitted in .XLS format.

RFP Description				
RFP No.				
Organization				
Address				
Contact Person				
Contact No.				
Mail Id				
S.No.	Section No.	Page No.	Clause as per RFP	Clarification Sought

Annexure XXII

Marking Scheme

S.No	Description	Evaluation Criteria	Max Marks	Supporting documents
1.	The Bidder should be registered under Companies Act, 1956 and 2013 in India and should have been in operation in India for at least last 8 years as on the date of submission of the bid. Consortium of companies/ firms is not allowed.	More than 8 Years: 10 Marks	20	Incorporation certificate to be submitted
		More than 10 Years: 15 Marks		
		More than 12 Years: 20 Marks		
2.	Bidder must have minimum average annual Turnover of 10 crores during the last three financial year i.e., 2020-21, 2021-22 and 2022-23 with net profit and positive net worth for each year.	More than 10 Crore:5 Marks	10	<ul style="list-style-type: none"> • Audited balance sheet. • Auditor certificate clearly specifying the turnover with net profit and positive net worth for each year.
		More than 20 Crore: 10 Marks		
3.	The bidder have experience of implementing Atal Tinkering / STEM/Robotics Labs in government schools in a single work order in last three financial year i.e., 2020-21, 2021-22 and 2022-23.	If the value of work order is more than 8 Crore: 10 Marks	20	Copy of Work order/ Agreement and Completion Certificate/Installation Certificate
		If the value of work order is more than 10 Crore: 15 Marks		
		If the value of work order is more than 15 Crore: 20 Marks		
4.	Experience of successfully executing the work of Atal Tinkering / STEM/Robotics Labs each of value not less than 8 crores.	1 project's: 10 Marks. 2 projects': 15 Marks. 3 or more than 3 projects: 20 Marks	20	Copy of Work order/ Agreement and Completion Certificate/Installation Certificate.

5.	The bidder should have experience of delivering technology enabled training to minimum 500 students in a single work order for Govt. Schools.	Bidder with maximum number of students of Govt. Schools trained in single work order shall be awarded maximum marks and others shall be awarded marks proportionately. E.g., If the bidder has maximum 1000 students trained under a single work order shall be awarded 20 marks and the Bidder with 500 students shall be awarded marks like $(50/100) * 20 = 10$ marks	20	Copy of Work order/ Agreement and Completion Certificate/Installation Certificate Note: The count of students trained should be clearly stated on Copy of Work order/ Agreement/ Certificate of Completion/ Any other certificate issued by client.
6	The bidder should have deployed full time IT/Technology related trainers in Govt. School as on date of applicant if bid.	Upto 50 trainers- 05 Marks Above 50 trainers- 10 Marks	10	Work order/MOU along with salary slips and statutory proofs of the deployed staff.

For MSME/ NSIC registered bidder:

S.No.	Description	Evaluation Criteria	Max Marks	Supporting documents
1	The bidder should be a company registered in India under Companies Act 1956 or 2013 or Proprietorship /Partnership Firm with their registered office in India in operation for at least 5 years preceding the bid due date.	More than 5 Years: 10 Marks More than 7 Years: 15 Marks More than 10 Years: 20 Marks	20	Incorporation certificate to be submitted
2.	Bidder must have minimum average annual Turnover of 8 crores during the last three financial year i.e., 2020-21, 2021-22 and 2022-23.	More than 8 Crore: 5 Marks More than 16 Crore: 10	10	<ul style="list-style-type: none"> • Audited balance sheet. • Auditor certificate clearly specifying the turnover with net profit and

		Marks		positive net worth for each year.
3.	The bidder have experience of implementing Atal Tinkering / STEM/Robotics Labs in government schools in a single work order in last three financial year i.e., 2020-21, 2021-22 and 2022-23.	If the value of work order is more than 7 Crore: 10 Marks	20	Copy of Work order/ Agreement and Completion Certificate/Installation Certificate.
		If the value of work order is more than 9 Crore: 15 Marks		
		If the value of work order is more than 14 Crore: 20 Marks		
4.	Experience of successfully executing the work of Atal Tinkering / STEM/Robotics Labs each of value not less than 7 crores.	1 project's: 10 Marks. 2 projects': 15 Marks. 3 or more than 3 projects: 20 Marks	20	Copy of Work order/ Agreement and Completion Certificate/Installation Certificate.
5.	The bidder should have experience of delivering technology enabled training to minimum 400 students in a single work order for Govt. Schools.	Bidder with maximum number of students of Govt. Schools trained in single work order shall be awarded maximum marks and others shall be awarded marks proportionately. E.g., If the bidder has maximum 800 students trained under a single work order shall be awarded 20 marks and the Bidder with 400 students shall be awarded marks like $(40/80) * 20 = 10$ marks	20	Copy of Work order/ Agreement and Completion Certificate/Installation Certificate. Note: The count of students trained should be clearly stated on Copy of Work order/ Agreement/ Certificate of Completion/ Any other certificate issued by client.
6	The bidder should have deployed full time IT/Technology related trainers in Govt. School as on date of applicant ff bid.	Upto 40 trainers- 05 Marks Above 40 trainers- 10 Marks	10	Work order/MOU along with salary slips and statutory proofs of the deployed staff.

PART-II: FINANCIAL BID

Instructions to Bidders

1. Financial Bid shall be submitted with full price details.

Financial Bid shall contain only the prices duly filled in as per the format given in Schedule of Rates provided in the tender document. Price bid should not have any Commercial and/or Technical stipulation in addition to, what is already given in Part I – Technical bid.

Financial Bid Standard Form-1 shall be used for the preparation of the price quote according to the instructions provided.

2. The changes displayed in the corrigendum/addendum to the bid documents, particularly with the financial bid should be attached with the **Financial Bid Submission Form**, in the same packet, duly signed and stamped by the authorized signatory of the Bidder firm.
3. The financial bid form-1 along with financial bid submission form should be filled in all respect and uploaded in **.PDF** format (only) duly signed and sealed by the authorized representative. In case, the financial bid documents are not complete in all respect the same should be treated as incomplete at financial bid stage and shall be considered non-responsive.
4. In case, the Bidder/s does not quote for all the items, the Bid shall be treated as incomplete and shall be rejected summarily.
5. The bid shall be evaluated on total Price for each solution as shown in financial bid.
6. The prices must be quoted in the Performa given in Commercial Bid, failing which the Bid would be treated as unresponsive. Any discount or any other offers affecting the package price must be mentioned in Financial Bid only. Discount or any other offers affecting the Package price mentioned at any other place of the bid other than Financial Bid will not be considered.
7. Price quoted by the bidder is including all transportation and installation etc. cost (if any).
8. The bidder should quote for all components of the solution(s) in accordance to the pre-qualification and technical qualification criteria.

FINANCIAL BID SUBMISSION FORM

To:
**Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)**

Subject: Submission of the Financial bid for Empanelment of Service provider for Entering into Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions

Dated: ____/____/2024

Dear Sir,

We, the undersigned, offer to provide services for “Rate Contract for Design, Installation & Commissioning of ATL, STEM and Robotics Lab Solutions” in accordance with your request for proposal dated __/__/2024.

All the prices mentioned in our bid are in accordance with the terms as specified in the RFP documents. All the prices and other terms and conditions of this Bid are valid for a period of 180 calendar days from the date of opening of the Bid.

All the taxes are quoted separately under relevant sections. Any miscalculation of taxes would be on our own account. Please note that all amounts shall be the same as in Form-1

Our Financial Bid shall be binding upon by us subject to the modifications resulting from Contract negotiations, if any, up to expiration of the validity period of the Proposal.

Yours sincerely,

Authorized Signature {In full and initials}:Name
and Title of Signatory:

In the capacity of:

Address:

E-mail:

SUMMARY OF FINANCIAL BID

FORM 1: SOLUTION 1

Subject: Rate Contract for ATL, STEM and Robotics Lab

Name of the Owner Individual/ Firm:

Solution 1: ATL Lab Solution

S. No.	Name of theItem	Unit Cost for Lab (A)	GST (%)	GST (in INR) (B)	Total Unit Cost C=A+B (in INR)
1.	ATL Lab Solution including one year warranty				
2.	Cost for two-year maintenance post one year warranty period				
3.	5 days physical Training of Teachers on training components & hardware equipment's (3 Teachers per School, batch of 40 teachers)				
Total Unit Cost for Solution 1 (in INR)					

Total Unit Cost for Solution 1 (incl. Taxes) (In Words) _____

FORM 2: SOLUTION 2

Solution 2: STEM Lab Solution

	Name of theItem	Unit Cost for Lab	GST	GST (in	Total Unit Cost
--	-----------------	-------------------	-----	---------	-----------------

S. No.		(A)	(%)	INR) (B)	C=A+B (in INR)
1.	STEM Lab Solution including one year warranty				
2.	Cost for two-year maintenance post one year warranty period				
3.	5 days physical Training of Teachers on training components & hardware equipment's (3 Teachers per School, batch of 40 teachers)				
Total Unit Cost for Solution 2 (in INR)					

Total Unit Cost for Solution 2 (incl. Taxes) (In Words) _____

FORM 3: SOLUTION 3

Solution 3: Robotics Lab Solution

S. No.	Name of the Item	Unit Cost for Lab (A)	GST (%)	GST (in INR) (B)	Total Unit Cost C=A+B (in INR)
1.	Robotics Lab Solution including one year warranty				
2.	Cost for two-year maintenance post one year warranty period				
3.	5 days physical Training of Teachers on training components & hardware equipment's (3 Teachers per School,				

	batch of 40 teachers)				
Total Unit Cost for Solution 3 (in INR)					

Total Unit Cost for Solution 3 (incl. Taxes) (In Words) _____

Note:

- The above prices shall be inclusive of all taxes, delivery charges and installation charges at the school level including one year of onsite comprehensive warranty.
- Detailed School List will be provided to the Successful Bidder.
- Applicable deduction on payment will be made for TDS/GST.
- Validity of Offer: The offer should remain valid at least for a period of 180 days to be reckoned from the date of bid opening.
- The above prices shall include one years on site comprehensive warranty.
- All other incidental charges relating to transportation of equipments at the site are included in the above prices.
- No amount towards TA / DA and lodging, boarding or incidental to execution of the project shall be paid.
- The price break up sheet for Solutions 1 , 2 and 3 may be asked at any stage of tender.

Place:

Date:

Signature and Stamp of the Bidder

Name:

Designation: