

**Tender for the Establishment
of
AICTE IDEA Lab
in
SILICON UNIVERSITY, ODISHA**

REF. NO. - SU/094/2025-26

Contact Person for Tender:

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TENDER REFERENCE NO.	SU/094/2025-26
TENDER DOCUMENT AVAILABLE FOR DOWNLOAD	Link to download www.silicon.ac.in/bbsr-home/announcements.
PUBLISH DATE OF TENDER	21st Aug 2025
DATE OF PRE-BID TENDER	15th Sep 2025
LAST DATE OF TENDER SUBMISSION	21st Sep - 2025
TIME AND DATE OF OPENING OF TENDER	24th Sep 2025
ADDRESS FOR TENDER SUBMISSION	Silicon University, Odisha

Dr. Manoj Kumar

V. Talukder

Prof. Dr. ...



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1.1. Introduction:

IDEA Lab (Innovation, Design and Entrepreneurship Academy Lab) is an initiative aligned with the vision of promoting innovation, creativity, and entrepreneurship in education. These labs aim to create a maker-centric, design-oriented ecosystem that integrates innovation and real-world problem-solving within the academic framework of institutions. IDEA Lab provides hands-on exposure to emerging technologies such as 3D printing, robotics, electronics, IoT, AI/ML, and encourages multidisciplinary learning, ideation, prototyping, and entrepreneurship from school/college level onward. The IDEA Lab functions as a dynamic space where learners are encouraged to explore, experiment, and innovate without the bounds of rigid curriculum structures.

All goods and related services to be supplied under this project shall have their origin in India. The term "origin" refers to the place where goods are mined, grown, produced, manufactured, or from where the services are arranged and delivered.

1.2. Scope of Work:

The scope of work focuses on the implementation of IDEA Lab in **SILICON UNIVERSITY, ODISHA**. This includes the supply, installation, commissioning, operation, and maintenance of IDEA Lab for an inclusive one-year warranty and support period post final acceptance. The selected Implementing Agency will be responsible for ensuring that the IDEA Lab becomes an integral part of the institute's teaching-learning process and innovation framework. Key deliverables include:

1.2.1. Centralized & On-Site Faculty Training

The Implementing Agency shall conduct structured training programs for faculty members through onsite sessions. Training will focus on IDEA Lab equipment usage, safety standards, project-based learning approaches, and integration into academic syllabi. Continuous mentoring and onsite guidance will help faculty confidently facilitate lab activities.

1.2.2. IDEA Lab Content Integration & Video Library Access

The Bidder will offer a rich library of IDEA Lab-specific content, including subjects like electronics, CAD/CAM, design thinking, 3D printing, AI/ML, robotics, and entrepreneurship. The content will support foundational to advanced learning and will be accessible 24/7 to all stakeholders.

1.2.3. Faculty Development Program

The Implementing Agency will organize 5-day training sessions for faculty in batches of 6–10 participants, across multiple clusters. Training modules must include design thinking, lab operations, innovation management, and project-based pedagogy. Post-training support and LMS enrolment will be ensured.

1.2.4. Promotion of Innovation & Design Thinking

- a) Introduce and implement design thinking methodologies in student projects, covering problem identification, ideation, prototyping, and feedback loops.
- b) Conduct competitions, innovation challenges, and maker fairs to foster a spirit of inquiry and entrepreneurship.

1.2.5. Student Innovation Programs

- a) Guide students through long-term, community-focused innovation projects with continuous virtual mentorship.
- b) Organize annual online exhibitions showcasing student innovations to wider audiences via other social platforms.

1.2.6. Expansion & Scaling

- a) While the initial implementation will target selected institutions, future phases will aim for state-wide scaling of IDEA Lab.
- b) The initiative will catalyse mainstream innovation, creativity, and entrepreneurship education.

1.2.7. Student Certification

Students participating in IDEA Lab activities shall receive digitally issued certificates from respective institutions, recognizing their involvement and achievements in projects, competitions, or learning milestones.

1.2.8. Monitoring & Evaluation

- a) Documentation of best practices and case studies shall be maintained.
- b) A comprehensive Project Completion Report (PCR) must be submitted, summarizing key milestones, learnings, and outcomes.

1.2.9. Submission of Implementation Plan

A detailed activity-wise implementation plan must include:

- a) Supply & installation timelines for lab equipment.
- b) Faculty training modules and schedule.
- c) Video/audio content development for LAB.

- d) Feedback and assessment frameworks.
- e) Content availability in Hindi and English.

1.2.10. Detailed Requirements under this Project

- 1.2.11.1. Supply, installation, commissioning, and maintenance of IDEA Lab equipment.
- 1.2.11.2. Hardware and software must meet the minimum technical specifications provided in the RFP.
- 1.2.11.3. Safe delivery and appropriate packaging of lab equipment.
- 1.2.11.4. Responsive digital support and helpdesk for IDEA Lab systems.
- 1.2.11.5. Prompt repair or replacement of faulty lab equipment.
- 1.2.11.6. Successful completion reports to be submitted post-implementation.

1.3 Eligibility Criteria for OEM/BIDDER

The eligibility criteria for OEM/BIDDERS participating in the IDEA Lab implementation are as follows:

S. N.	Basic Requirement	Specific Requirement	Documents Required
1	Legal Entity	The OEM/BIDDER must be a legally valid entity for a minimum of three years in the form of a Public/Private Limited Company, Partnership Firm, Proprietorship, or Registered Society/NGO having a registered office in India.	<ul style="list-style-type: none"> • Copy of Registration Certificate from the relevant authority or other applicable legal documentation. • Consortium & Joint Ventures are not allowed
2	Registration	The OEM/BIDDER must possess a valid PAN and GST registration.	Attested copies of PAN and GST certificates.
3	Net Worth	The OEM/BIDDER's net worth should be positive as of 31.03.2024.	CA Certificate with CA's Registration Number and Seal.
4	Turnover	The Bidder should have a minimum 5 Crore Annual Average Turnover for the last 3 years, in any of the last 5 financial years.	Turnover Certificate duly signed by a Chartered Accountant (CA).
5	Commercial Eligibility Criteria	The bidder should have previous experience of: One order of 50 Lakh or above OR Two Order of 30 Lakh or above OR Three order of 20 Lakh	Copies of Work Orders and completion / Installation Certificates
6	Past Experience	Bidder should have attached previous 3-year experience of their work FY (2021-22, 2022-23, 2023-24)	Copies of Work Orders and completion / Installation Certificates

7	No Blacklisting	The OEM/BIDDER should not have been blacklisted or debarred by any government agency in the last 3 years.	Notarized self-declaration regarding blacklisting/debarment status. Annexure D
8	Manufacturer Authorization Certificate (MAF)	The bidder must submit a valid Manufacturer Authorization Form (MAF) from the Original Equipment Manufacturer (OEM) for all products being quoted, wherever applicable.	MAF Certificate as per the Annexure B
9	Certification	The OEM/BIDDER should possess the following certifications: • ISO 9001:2015 • ISO 14001 • ISO 45001 • ISO 50001 • CE, RoHS • ZED Certification	Copies of valid certificates along with OEM/BIDDER authorization (where applicable).
10	Technical Write-up & Presentation	The OEM/BIDDER must submit a detailed technical approach and methodology document including: • Implementation strategy • Curriculum approach • Project and innovation methodology • Previous experience in hackathons or innovation challenges	Technical proposal document and presentation slides/demo content.
11	Bidder General Document	Bidder should have to submit bank mandate certificate, Udyam Aadhar Certificate, ITR Acknowledgement of last 3 AY, GSTR 3B, Cancelled Cheque, CVC Pledge Certificate	Copies of all documents should be attached in technical documents.
12	Local Office	Bidder Should have their registered local office presence in the state, have to submit declaration on bidder's letter head. (Format is given into the tender document Annexure E)	Copy should be Notarized
13	Site Visit Declaration	Site Inspection Certificate as per format attached in tender documents with duly seal and signed by buyer representative before pre - bid meeting date need to be submitted with technical bid documents failing which bidder is liable for rejection	Copy should be attached in technical document Annexure C
14	Warranty Declaration	Bidder should have to declare warranty of each equipment in their letterhead as per the Annexure	Copy should be attached in technical document
15	Compliance Certificate	Bidder should have to submit Compliance Certificate.	Copy should be attached in technical document

16	Physical Document Submission	Bidder should have to submit Physical Document Submission Before tender closing date in Sealed Envelope.	Physical Document Submission Before tender closing date
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1.4 INSTRUCTION TO BIDDERS

Bidders are advised to carefully read the tender documents multiple times to avoid any confusion. It is also important to note that each tender document is unique, with its own set of conditions/specifications, due to which there may be changes in this document compared to previously issued tenders by the SILICON UNIVERSITY. So, it is advisable to read this document in its entirety and fill in the bid accordingly.

1. EARNEST MONEY DEPOSIT (EMD)

EMD acts as a safeguard against a bidder's withdrawing/altering its bid during the bid validity period. EMD (or Bid Security) is a must for all bidders. However, the bidder needs to provide sufficient documentary evidence in support of such claimed exemption at the time of tender document submission, to avail of the same. EMD also approved in the form of DD/FDR/Bankers Cheque/Direct Account Transfer details given below. **EMD exemption must be allowed as per the general financial rule 2017.**

EARNEST MONEY DEPOSIT (EMD) – Participant Should Pay 2% of the Quoted Amount.

Submission of Earnest Money Deposit

The earnest money should be submitted by way of NEFT/RTGS.

Details of Account for NEFT/RTGS Payment:

Account Name: Principal, Silicon Institute of Technology

Account No: 595102010010710

Bank Name: Union Bank of India, Bhubaneswar

IFSC/RTGS code: UBIN0559512

NOTE: The Fund should be transferred through NEFT/RTGS from the bidder's account. Non-compliance with the same shall lead to rejection of the bid.

- **Refund of Earnest Money Deposit**

The EMD without interest shall be refunded when the bidder is declared "not eligible" or "not selected" at any stage of tender evaluation.

- **Forfeiture of Earnest Money Deposit**

The EMD shall be forfeited in the following circumstances:

1. If any document/information provided by the bidder in support of its eligibility is found to be false or misleading, or forged.
2. If the bidder withdraws from the bid after submitting the bid.
3. If the bidder withdraws from the bid after submitting the bid.
4. In case of any bidder who withdraws wholly or in part, after participating in the tender, either fully or partially.
5. If the successful bidder fails to sign the contract after communication of being L1.

2. VALIDITY OF TENDER

The bid shall be valid for 1 year from the date of opening of the Technical Bid.

3. CLARIFICATION OF BIDDING DOCUMENTS

A prospective Bidder requiring any clarification of the Bidding Documents may notify the Purchaser in writing or by e-mail at the Purchaser's mailing address indicated in the Invitation for Bids. A pre-bid meeting is scheduled at SILICON UNIVERSITY, ODISHA, on the date mentioned in the tender notice.

The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. Tender inviting authority reserves the right to take a decision on the nature and extent of amendments required. (Annexure mentioned)

4. AMENDMENT IN BIDDING DOCUMENTS

At any time before the deadline for submission of bids, the Purchaser may, for any reason, whether at its initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by an amendment. All such amendments will be made available on the tender website.

In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bid, the Purchaser may, at its discretion, extend the deadline for the submission of bids.

5. TENDER PROCESS

The tender process will be for 2-cover system, consisting:

Cover- A: Technical Bid (along with demonstration)

Cover B: Financial Bid

Evaluation Process

The bidders meeting all criteria of Cover A (Technical Bid) will be qualified for evaluation of Cover B (Financial Bid). Financial bid (of qualified bidder) will be opened only for those items of any bidder that are deemed satisfactory and responsive during technical evaluation and physical demonstration at the purchaser's site or bidder's site, as deemed suitable.

Infirmity/Irregularity/Non-Conformity

If during the preliminary examination, the purchaser finds any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same, provided it does not constitute any material deviation and financial impact, and does not prejudice or affect the ranking order of the bidders. Wherever necessary, the purchaser will convey its observation on such 'minor issues' to the bidder by registered/speed post/website notification, etc., asking the bidder to respond by a specified date. If the bidder does not reply by the specified date or gives an evasive reply without clarifying the point of issue in clear terms, then that bidder shall be rejected.

6. AWARD OF CONTRACT

Award Criteria

Purchaser shall award the Contract to the qualified Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, subject to the bidder agreeing to all terms and conditions of the tender.

Note: No bidder shall try to influence the Purchaser on any matter relating to its bid, from the time of the bid opening till the time the contract is awarded. Any effort by a bidder to modify his bid or influence the purchaser in the purchaser's bid evaluation, bid comparison, or contract award decision shall result in the rejection of the bid, in addition to other applicable legal liability.

Purchaser's right to accept any bid and to reject any or all bids:

The Purchaser reserves the right to accept or reject any bid, at any time before award of contract, without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds of Purchaser's action.

Issue of notification of award

The issue of Notification of Award shall constitute the intention of the Purchaser to enter a contract with the bidder. Before the expiration of the period of bid validity, the Purchaser will notify the successful Bidder in writing by e-mail and/or by Post. The bidder shall, within 10 days of issue of the Notification of Award, give his acceptance along with the agreement document (which itself must conform to the bid document). In case the bidder is not willing to unconditionally accept the contract within the specified timeframe, the EMD submitted will be forfeited.

7. WARRANTY/DEFECTS LIABILITY PERIOD

1. The Supplier shall indicate the free guarantee maintenance of the whole system, including essential accessories supplied, and the same should not be less than 03 (Three) years.
2. The supplier shall warrant comprehensively that the equipment supplied under the contract is new, unused, and incorporates all recent improvements in design and materials. All losses due to defects resulting from faulty design, materials, and workmanship during the warranty period of 03 years shall be compensated by the supplier.
3. In case of any defects detected in items under warranty, the users shall notify TIA/supplier about the same. TIA/user shall promptly notify the supplier in writing of any claims arising from such defects. The complaint shall be attended to within 48 hours, remotely/with a site visit. The defect/breakdown should be repaired/rectified as soon as possible, ensuring 95% uptime annually (Maximum 18 Days of downtime allowed).
4. During the period of warranty, the supplier shall replace all defective parts of the equipment and its accessories and attend to all repairs/breakdowns. The cost of all spare parts and other expenditure for all replacements has to be borne by the supplier during this period.

5. It is mandatory to provide a warranty certificate as per Annexure. No other format will be accepted/entertained.

a) OTHER IMPORTANT INSTRUCTIONS

1. The purchaser shall have all rights to modify, add, or subtract any term(s) and condition(s) of the tender. During any time of the tender process, this shall be communicated to the bidder online.

2. The place of supply shall be given in the purchase order by the purchaser to the bidder after the award of the tender.

3. The supplier shall also confirm Demonstration and Training to the person concerned at the user and the SILICON UNIVERSITY office if required at no extra cost.

4. Apart from the penal actions mentioned in the conditions of contract, if the successful bidder fails to undertake the contract, the bidder is liable for all damages sustained by SILICON UNIVERSITY by reason of breach. including the liability to pay any difference between the prices accepted by the bidder and those ultimately paid for the procurement of the articles concerned.

5. Successful bidder must provide training to Staff from time to time during the warranty period. Periodic maintenance must be done on a Bi-annual preventive maintenance and SOS breakdown. One copy (each) of the maintenance report must be submitted to the user department/BME & as and when required by SILICON UNIVERSITY.

6. If any item(s) supplied by the bidder have been partially or wholly used after supply and are subsequently found to be in bad order, unsound, inferior in quality or description or otherwise faulty or unfit for usage, then the contract price or prices of such item(s) shall be recovered from the bidder, if payment has already been made to him.

7. Bidders are advised and required to go through Annexure for guidance regarding online filling and submission of tender documents.

8. Supplier shall submit an undertaking (in the bidder's letterhead) for the uninterrupted supply of adequate spares, Parts/Accessories/Consumables for at least 10 years.

9. Samples submitted/demonstrated by eligible bidders will be evaluated by a technical committee. Only selected samples/models will be considered for price comparison and further processing. The successful bidder has to supply items exact to the samples submitted/demonstrated. In case the demonstration of the item is to be done at the bidder's site, all travel and accommodation of the technical team will be arranged and borne by the bidder.

10. In case the equipment/item installed by the bidder does not meet the specifications of quoted equipment/item, the purchaser shall have all rights to cancel the equipment/item's purchase order, and the bidder shall be responsible to take back the installed equipment/item at his/her own cost after getting the order from purchaser.

11. The supplier must ensure minimum bi-annual preventive maintenance and SOS breakdown of supplied items up to completion of the warranty period at no extra cost.

12. In all the above conditions, the decision of the TIA or any officer authorized by TIA shall be final and binding.

13. If the supplier fails to give a demonstration on dates given intimated by SILICON UNIVERSITY, bid for the non-demonstrated item will be rejected without any further consideration.

14. Tender Inviting Authority will be the final authority for any changes to tender terms.

b. Blacklisting:

1. Any bidder who withdraws his bid after the last date of bid submission in any manner, either fully or partially, will be liable to be blacklisted in respect of the item(s) withdrawn, for 03 years from the date of issuance of such blacklisting order by SILICON UNIVERSITY.

2. Any bidder who submits false, forged, or fabricated documents or conceals facts with the intent to win the Bid or procure a purchase order then they shall be liable for blacklisting for 03 years. The bidder will also be liable for other legal action depending upon the facts & circumstances of the case.

3. If the supplier fails to supply up to 100 of % items in purchase orders, then the performance guarantee of such supplier will be forfeited in respect of such under-supplied item(s). The supplier will also be liable for other legal action depending upon the facts & circumstances of the case

4. Any successful bidder after declaration as LI Bidder or after agreeing with SILICON UNIVERSITY, withdraws or fails to honour commitments as per bid conditions, then the Performance guarantee of such bidder will be forfeited and they shall be liable for legal action in respect of such item(s).

5. If any supplier, after supplying and installing the ordered quantity, fails to provide after-sales service and/or maintenance during warranty as per tender conditions, then the performance guarantee of such supplier will be forfeited. The expense of the maintenance (for the period they were committed to, as per the tender clauses) shall also be recoverable from them.

6. In case a supplier/bidder is blacklisted for any reasons, then it will be responsibility (arising out of Annexure) of the OEM (in case of Indian Manufacturer) or the Indian Affiliate of OEM (in case of Imported Equipment) to provide repair services, maintenance and parts during warranty, as per tender terms and conditions. If it fails to discharge such responsibility, then it will lead to blacklisting of the responsible entity for 03 years.

7. Purchase orders, if any, already issued before taking any blacklisting action or orders given in the past will not be affected, given the action taken to blacklist, but all strict quality checks shall be observed for each supply of products.

8. The blacklisting of a particular product or company/firm will be done without prejudice to other penalties which may be imposed as per the conditions of the Tender documents and also to other actions which may be initiated under any other law of the land. SILICON UNIVERSITY will display names of such blacklisted product(s) and company/firm on its website and also circulate the same among other State government/Central government and its equipment procurement agencies, including respective Govt/regulatory stakeholders where the company or firm is located.

Procedure for Blacklisting

1. Before Blacklisting, a show-cause notice shall be issued to the supplier calling for an explanation. In case of non-reply within in time frame specified in such notice, or in case of an unsatisfactory reply, then the SILICON UNIVERSITY may take appropriate action on the merits of the case and impose a penalty. including blacklisting.
2. If a particular equipment of the supplier has been blacklisted, the supplier is not eligible to participate in any of the tenders for that particular equipment floated by the SILICON UNIVERSITY until the period of blacklisting is over.
3. If a supplier company/firm is blacklisted according to the procedure stated above, such a supplier is not eligible to participate in any of the tenders floated by the SILICON UNIVERSITY until the period of blacklisting is over.
4. In all the cases, the decision of the Managing Director of SILICON UNIVERSITY will be conclusive and final, and binding on the suppliers.

In all the above conditions, the decision of the TIA or any officer authorized by TIA shall be final and binding.

1.5 EQUIPMENT LIST

Sr. No	Equipment	Preferred brands, if any	Specifications	Qty
1	Single Nozzle 3D printer	Branded Company Product with at least three years product warranty	<p>Printing Technology: Fused Filament Fabrication (FFF) or Fused Deposition Modeling (FDM).</p> <p>Printable Area: The minimum printable area should be at least 310 x 310 x 310 mm or above</p> <p>Printer Design: Core XY or Cartesian.</p> <p>Temperature Range:</p> <p>Hot end: Up to 300°C or above</p> <p>Heat bed: Up to 120°C. or above.</p> <p>Nozzle: Compatible with All polymers, 0.4, 0.6 and 0.8mm</p> <p>Steel Sheet: Provided with satin or smooth PEI surface.</p> <p>Filament Diameter: 1.75mm (supports PLA, PETG, ASA, ABS, etc.).</p> <p>Extruder: Gearbox with 1/10 ratio, Speed : 550 MM/Sec or above</p> <p>Stepper Drivers for smooth motion. or equivalent</p> <p>Stepper Motors: Choose between 1.8° or precise 0.9° X, Y stepper motors.</p> <p>LCD Screen: 3.5" graphic 65k color screen or larger.</p> <p>Connectivity: USB drive, LAN, or internet.</p> <p>Supported Materials: PLA, PETG, ASA, ABS, PP, PC, flexible filaments, and more.</p> <p>Wi-Fi Module: Built-in (network connectivity not required for setup or operation).</p> <p>Compatibility: Windows, macOS, Linux.</p> <p>Printer Dimensions: The maximum physical dimensions of the system 700 X 700 X 700 or above. Fully enclosed Machine.</p>	1

2	PCB Milling Machine	Branded Company Product with at least three years product warranty	<p>Cutable Materials: Modeling Wax, Chemical Wood, Foam, Acrylic, Poly Acetate, ABS, PCB, Copper glad, etc Table Size: 225 (X) × 150 (Y) mm or more</p> <p>Drive System: Stepping Motor (X, Y, Z Axis) Operating Speed: 800 mm/min Software Resolution: 0.01 mm/step Position accuracy : 0.01 to 0.02 mm Max Travel Speed (mm/sec)-58 (2.28 “) Drilling (mm)-0.2 -3.175 (8-125 mil) Maximum Drilling Cycles/ Min-50</p> <p>Spindle Motor: DC Motor Type 380 or More Spindle Speed: Adjustable 20,000 and above rpm or more Tool Chuck Type: Collet Interface: USB or cable Control Commands: RML-1, NC code Power Supply: DC 24V, 2.5A (via AC 100–240V, 50/60Hz adapter) Power Consumption: Approx. 50 W or more</p>	1
3	CO ₂ Laser Cutting Machine	Branded Company Product with at least three years product warranty	<p>Working Area: Min 600 x 900 mm or above Laser Type: CO₂ DC Glass Laser Tube/RF Metal Laser Tube Laser Power: 80/100W Wave Length: Upto 10.6 Micrometer Cutting Speed: 30000 mm/min or more Engraving Speed: 64000 mm/min or more XY Axis: LM Guide Rail or equivalent Cooling: Air/ Water Cooling Supply Voltage: 230V/415 V Accessories: CO₂ Focus Lens: 1 No. Mirror 25mm: 3 Nos. Acetone: 1 litre Acrylic sheet: 2 Nos</p>	1
4	Vinyl Printer	Branded Company Product with at least Two years Warranty	<p>Dimensions: 50 cm x 15 cm x 15 cm or above Weight: 15.4 lbs or less Max cut size using machine mat: 11.5 inch x 23.5 inch or more Cut speed: up to 14.1 ips</p>	1

5	3D Scanner	Branded Company Product with at least three years product warranty	Technology: Stereo camera structured light with focusable cameras or equivalent CPU: Quad-core 64-bit SoC, 1.5GHz with integrated GPU RAM: 4 GB Projector: DLP MEMS mirror or equivalent Camera Sensor: Sony 13 MP or better Scan Speed: 4 seconds or more Working	1
			<p>Distance : Effective Working Distance: 160mm-1400mm Scan Speed : 980,000points/s, up to 14FPS</p> <p>Align Modes : Feature Alignment, Hybrid Alignment, Texture Alignment, Global Markers</p> <p>Safety : Eye-safe</p> <p>Texture Scan : Yes</p> <p>Interface : USB2.0 or above</p> <p>Outdoor Scanning : Yes</p> <p>Output Formats : OBJ; STL; PLY; P3; 3MF</p> <p>Scanning Environment: Indoor and outdoor (shaded) Texture / Color Scanning: Yes Minimum Capturable Feature Size: 0.2 mm or less</p> <p>Scanner Weight: 500 grams or less Scanner Dimensions: upto 240 × 60 × 60 mm Compatible OS: Any OS supporting a modern web browser</p>	

6	Lathe Machine cum milling	Branded Company Product with at least three years product warranty	<p>Centre Width: Up to 400 mm or better Height of Centers: Up to 88 mm Maximum Workpiece Diameter: Up to 100 mm Machine Base: Cross-ribbed surface, high-quality cast iron with ground prismatic guide, capable of fitting milling/drilling attachment Spindle: Supported with adjustable taper roller bearings Spindle Receiver: MK3 or compatible Spindle Drill Hole: Up to 22 mm or better Spindle Concentricity: Up to 5 microns or better Chuck: 3-jaw chuck as per DIN 6386, centrally clamped, 100 mm diameter or better Run Out (without Chuck): Up to 10 microns Sleeve Receiver: MK2, retractable sleeve with scale Spindle Speed Range: Between 50 to 2500 rpm Speed Stages: 6-8 Motor Rating: 550W or better, induction motor, single phase 230V</p>	1
			<p>Traverse Cross: Up to 70 mm or better Traverse Longitudinal: Up to 300 mm or better Weight (Complete): Up to 55 kg or more</p> <p>Additional Accessories: Splash guard and chip collecting tray: 1 No. Cutter set with tungsten inserts: 2 Nos. Milling Attachment: 1nos Tungsten disposable tips ten-piece set: 1 No. Sample workpieces (Nylon Rod, Aluminium Rod) Desktop: 1 No.</p>	

7	CNC Router	Branded Company Product with at least three years product warranty	Working Area: Min 1300 x 2500 mm Z Axis Working Area: 200 or above Resolution: $\pm 0.03/300$ mm or more CNC Spindle: 3KW or more Lathe Structure : Welding Steel Structure or equivalent XYZ Structure: Rack Pinion , Ball Screw Linear Rails Max Spindle Speed : Min 18000RPM Table: T-Slot/Vacuum Bed/Water Bed Repeatability: ± 0.03 Working Mode: Stepper Motor/Servo Motor Dust Collector : To be included by Vendor Voltage: AC 220V/415V, 50/60 Hz, 3 Phase	1
8	Belt and Disc Sanding Machine	Branded Company Product with at least three years product warranty	Motor: 230V 50Hz Power: 380W S2 30min No-load Speed: 1450rpm or more Belt Size: 100x914mm or less Disc Size: 150mm or better Table Titing Range: 0° - 45° Belt Titing Range: 0° - 90° Table Size: upto 190x125mm	1
9	Scroll Saw	Branded Company Product with at least three years product warranty	Power input: 50 Watt Thickness of Cut: 50 mm (2 inch) Throat: 406 mm (16 inch) Length of Stroke: 18 mm (11/16 inch) Strokes Per Minute: 400-1,600 SPM Overall Length: 600 mm (23-5/8 inch)	1
10	Wood Turning Lathe	Branded Company Product with at least three years product warranty	Motor: 230V~50Hz, 550W, S2:15min or above Max. Disc Diameter: min 75 mm Max. Cutting Length: 450 mm or more Spindle Speed: 5 speeds such as 1600 / 2600 / 3200 RPM etc Material: Cast Iron Bed Height: 0.2 m Cable Length: 0.850 m	1
11	Bench Top Drill Machine	Branded Company Product with at least Three to Five years Warranty	Continuous rating input: Max. 250 W Capacity: Steel: Min 13 mm (1/2") Wood: Min 24 mm (15/16") No Load Speed (RPM): 570, 890, 1,300, 1,900, 2,670(50 Hz), 690, 1,070, 1,560, 2,280, 3,200(60 Hz) Net weight: Max. 20 kg (44.1 lbs.) Power supply cord: 1.75 m (5.7 ft) Additional Accessories: Bench Vise: 1 No., Drill Bit Set 10 Pcs: 1 No	1

12	Portable Welding Machine	Branded Company Product with at least Three to Five years Warranty	Welding Current (at 40°C, 10 min cycle): 120A @ 100%, 150A @ 60%, 200A @ 35% Supply Voltage: 240V +10%, -15%, 1 Phase, 50/60 Hz Open Circuit Voltage: 55V DC \pm 5V Welding Current Range: 15–200 Amps DC Insulation Class: F Type Ingress Protection: IP21 Dimensions (L×W×H) with Handle: upto 320×120×195 mm Weight (Approx.): 4.3 kg or less	1
13	Computerized Sewing Machine	Branded Company Product with at least three years product warranty	Motor: 120 W Max Sewing Speed: 860 SPM Power: 220 - 240 V Automation Grade: Automatic Max Stitch Length: 4mm Thread Type: Computerized Weight: 7.6 kg Number of Stitches: 120 Size/Dimension: 50.8 cm x 29.464 cm x 40.64 cm Maximum Stitch Width: 7 mm Number of Buttonhole Styles: 7 LCD Screen Display: Yes Bed Type Free Arm/Flatbed convertible Bobbin Type Drop & Sew Bobbin System	1
14	Filament Dehydrator	Branded Company Product with at least three years product warranty	Operating Temperature Range: Min 45°C– 70°C Drying Time Setting: 0–48 hours or higher Hot-Air Heating: upto 360° circulation Moving Speed: 300 mm/s or more Power Rating: 160 W Shipping Weight: 2.5 kg	1
15	Reflow Oven	Branded Company Product with at least three years product warranty	No. of Waves: 7 or higher Heating Type: Infrared IC Heater Max. PCB Width: 300×320 mm or more Power Supply: AC 220V / 50Hz Peak Power: 1500W Cycle Time: 1–8 min or less Temperature Range: 0°C–280°C	1
			Overall Dimensions: min 350×450 mm Machine Weight: upto 25 kg	

16	Digital multimeter	Branded Company Product with at least three years product warranty	Display Count: Up to 4000 DC Voltage Range: Up to 1000 V AC Voltage Range: Up to 1000 V DC Voltage Accuracy: $\pm 0.5\%$ or ± 3 digits, whichever is higher AC Voltage Accuracy: Within $\pm 1\% + 3$ digits DC Current Measurement: Up to 10 A AC Current Measurement: Maximum 10 A DC Current Accuracy: $\pm 1.5\% + 3$ digits (approximate) AC Current Accuracy: $\pm 1.5\% + 3$ digits (typical) Resistance Measurement: Up to 40 M Ω Resistance Accuracy: Estimated at $\pm 1.5\% + 3$ digits Capacitance Measurement: Up to 1000 μ F Capacitance Accuracy: $\pm 5\%$ or ± 5 digits Operating Temperature Range: From 0°C up to approximately 40°C Storage Temperature Range: Between -30°C and 60°C Overall Dimensions (H×W×L): Approximately 183×91×49.5 mm Unit Weight: Around 455 grams Safety Compliance: As per IEC 61010-1 & IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification	5
17	MSO 100 MHz	Branded Company Product with at least three years product warranty	Bandwidth: Up to 100 MHz Analog Channels: 4 or more Real-Time Sampling Rate: Maximum 1 GSa/s per channel Memory Depth: 10 Mpts per channel Waveform Update Rate: Approximately 120,000 wfms/s Vertical Resolution: 8 bits Vertical Scale: Ranging from 1 mV/div to 10 V/div Horizontal Scale: Spanning 1 ns/div to 100 s/div Spectrum Analyzer Frequency Range: DC to 500 MHz FFT Points: Up to 1M points for enhanced frequency domain resolution Waveform Math Functions: Includes addition, subtraction, multiplication, division, minimum, maximum, root, square, absolute, inverse, derivative, integral, and low-pass filter Trigger Types: Edge, Pulse Width, Video, Pulse Runt, Rise & Fall (slope), Alternate,	1

			<p>Timeout, Event-Delay, Time-Delay, and Bus Arbitrary Waveform Generator (AWG): Dual-channel, 25 MHz, supporting various waveforms such as sine, square, pulse, ramp, DC, noise, sinc, Gaussian, Lorentz, exponential rise/fall, haversine, and cardiac</p> <p>AWG Sample Rate: 200 MSa/s</p> <p>AWG Vertical Resolution: 14 bits</p> <p>Display: 8-inch WVGA TFT LCD (800 × 480 pixels)</p> <p>Data Logging Capability: Up to 1000 hours</p> <p>Segmented Memory: Supports up to 29,000 segments for efficient waveform storage and retrieval</p> <p>Connectivity: USB 2.0 (host and device), Ethernet (RJ45), and Go-NoGo BNC</p> <p>Dimensions (W × H × D): 380× 200× 125 mm or above</p> <p>Weight: 2 Kgs or above</p> <p>Safety Compliance: Conforms to IEC 61010-1 and IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification</p>	
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18	Digital oscilloscope	<p>Branded Company</p> <p>Product with at least three years product warranty</p>	<p>Number of Channels: Up to 2 independent analog inputs</p> <p>Memory Record Length: Up to 10 Mpts for extended waveform capture</p> <p>Bandwidth Limiting: Selectable 20 MHz bandwidth filter</p> <p>Sampling Rate: Maximum of 1 GSa/s real-time equivalent per channel</p> <p>Rise Time: ≤ 3.5 ns depending on probe and settings</p> <p>Display: 7" TFT color LCD with 800×480 resolution</p> <p>Time Base Range: From 5 ns/div to 100 s/div, user-adjustable</p> <p>Vertical Resolution: 8-bit digital resolution</p> <p>Trigger Modes: Automatic, Normal, and Signal-dependent triggering</p> <p>Maximum Input Voltage: 300 Vrms (within safety limits)</p> <p>Input Sensitivity: Within the range of 1 mV/div to 10 V/div</p> <p>Input Coupling Options: Selectable among AC, DC, and Ground</p> <p>Trigger Coupling Modes: Configurable as AC, DC, High-pass, or Low-pass</p> <p>Physical Dimensions: Approximately 350 × 200 × 120 mm or above</p> <p>Unit Weight: 2.5 kg or above</p> <p>Input Impedance: Nominal 1 MΩ // 16 pF</p> <p>Measurement Capabilities: Equipped for automatic parameter extraction, background</p>	1
			<p>noise filtering, and AUTOSET configuration for display scaling (time base/gain)</p> <p>Protocol Decoding Support: Capable of analyzing I2C, SPI, UART, CAN, and LIN communication protocols</p> <p>Standard Accessories: Includes mains power cable, user manual (digital format), and one GTL-16E probe per input channel</p>	

19	Power supply	<p>Branded Company Product with at least three years product warranty</p>	<p>Output Configuration: 4-channel design with independent electrical isolation across all outputs</p> <p>Channel Output Ranges:</p> <ul style="list-style-type: none"> • CH1 & CH2: Adjustable output voltage from 0 to 32V with a current delivery capacity up to 3A • CH3: Variable range 0 to 5V supporting up to 1A • CH4: Output adjustable from 0 to 15V with a load current of up to 1A <p>Constant Voltage Operating Mode Line Regulation: $\leq 0.01\% + 3 \text{ mV}$ (approximate value within rated voltage range) Load Regulation: $\leq 0.01\% + 3 \text{ mV}$ (across rated load variation) Ripple & Noise: $\leq 1 \text{ mVrms}$ across full bandwidth</p> <p>Constant Current Operating Mode Line Regulation: $\leq 0.2\% + 3 \text{ mA}$ Load Regulation: $\leq 0.2\% + 3 \text{ mA}$ Ripple Current: $\leq 3 \text{ mArms}$ (typical)</p> <p>Safety & Operational Features Output Control: Independent output ON/OFF switching functionality is required Voltage Resolution: Approximately 100 mV (*1) Current Resolution: Approximately 10 mA (*1)</p> <p>Display Parameters Display Units: Four separate displays required for individual channel status visualization Display Type: 4.3-inch LCD (color or monochrome as applicable)</p> <p>Functional Features Tracking Operation: Supported (required for synchronizing output behavior) Auto Series/Parallel: Supported (automatic internal reconfiguration required)</p>	1
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			<p>Power Requirements Supply Input: 230V AC $\pm 10\%$, 50 Hz</p> <p>Mechanical Specifications Maximum Dimensions (W \times H \times D): Within 200 mm \times 100 mm \times 200 mm Maximum Weight: 10 kg or less</p>	
20	Function Generator	Branded Company Product with at least three years product warranty	<p>Output Function: The equipment shall provide output waveforms including sine, square, triangle, and TTL signals as required.</p> <p>Frequency Range: For sine and square waveforms: approximately 0.1 Hz up to 3 MHz. For triangle waveform: approximately 0.1 Hz up to 1 MHz.</p> <p>Frequency Resolution: Frequency resolution shall be maintained within a maximum of 0.1 Hz.</p> <p>Frequency Stability: The frequency stability shall be within ± 20 ppm (parts per million).</p> <p>Frequency Accuracy: The frequency accuracy shall be maintained within ± 20 ppm.</p> <p>Frequency Aging: Frequency aging shall not exceed ± 5 ppm per annum.</p> <p>Amplitude Range: Output amplitude shall be up to 10 V peak-to-peak (Vp-p) into a 50 Ω load.</p> <p>Amplitude Accuracy: Amplitude accuracy shall be within $\pm 20\%$ at maximum amplitude setting.</p> <p>Output Impedance: Nominal output impedance shall be 50 Ω with a tolerance of $\pm 10\%$.</p> <p>Attenuator: A single-step attenuator of -40 dB ± 1 dB shall be provided.</p> <p>Display: A 6-digit LED display shall be incorporated for parameter indication.</p> <p>Output Control: Output shall be controlled via an ON/OFF selector switch.</p> <p>Power Source: The device shall operate on an AC supply of 240 V, 220 V, or 110 V $\pm 10\%$, with frequency 50/60 Hz.</p> <p>Ambient Operating Temperature: Normal operation shall be ensured within the ambient temperature range of 0 $^{\circ}$C to 40 $^{\circ}$C.</p> <p>Dimensions: Maximum dimensions shall not exceed 255 mm (W) \times 95 mm (H) \times 295 mm (D).</p> <p>Weight: Maximum device weight shall be within 2.5 kg.</p>	1

21	Bench Top Multimeter	Branded Company Product with at	DC Voltage: Range: 500 mV to 1000 V across 5 ranges. Accuracy: $\pm(0.03\% \text{ rdg} + 4 \text{ digits})$. Input impedance: 10 M Ω .	1
		least three years product warranty	<p>AC Voltage (True RMS): Range: 500 mV to 1000 V across 5 ranges. Accuracy: $\pm(0.5\% - 5\% \text{ rdg} + \text{digits})$ depending on frequency and range. Input impedance: 10 MΩ.</p> <p>DC Current: Range: 500 μA to 20 A across 6 ranges. Accuracy: $\pm(0.02\% - 0.3\% \text{ rdg} + 2 \text{ digits})$ depending on range.</p> <p>AC Current (True RMS): Range: 500 μA to 20 A across 6 ranges. Accuracy: $\pm(0.5\% - 1\% \text{ rdg} + \text{digits})$ depending on frequency. Resistance: Range: 500 Ω to 20 MΩ across 6 ranges. Accuracy: $\pm(0.1\% - 0.3\% \text{ rdg} + \text{digits})$ depending on range.</p> <p>Diode Test: Max forward voltage 1.5 V, open voltage 2.8 V.</p> <p>Capacitance: Range: 5 nF to 50 μF. Accuracy: $\pm(2\% \text{ rdg} + 4 \text{ digits})$.</p> <p>Frequency: Input level varies by range; functions include Auto/Manual Range, Max, Min, dBm, Rel, Hold.</p> <p>Continuity Beep: Threshold $<5 \Omega$.</p> <p>Display: Dual 7-segment LED, 0.4" and 0.5".</p> <p>Power Source: AC 100/120/230 V $\pm 10\%$, 50/60 Hz.</p> <p>Dimensions & Weight: Approximately 251 \times 91 \times 291 mm; 2.6 kg.</p>	

22	Non-Contact Voltage Tester	Branded Company Product with at least three years product warranty	<p>Function: Non-contact AC voltage detection tester.</p> <p>Voltage Detection Range: Approximately 90 V to 1000 V AC.</p> <p>Detection Method: Capacitive, with visual and audible indication.</p> <p>Sensitivity: Adjustable sensitivity for different voltage ranges.</p> <p>Response Time: Instantaneous detection within standard operating conditions.</p> <p>Indicators: Bright LED indicators and audible beep for voltage presence.</p> <p>Operating Environment: Suitable for use in ambient temperatures from 0 °C to 40 °C.</p> <p>Power Source: Powered by standard batteries (typically 2 × AAA or equivalent).</p> <p>Safety Standards: Complies with IEC/EN 61010-1 CAT III 1000 V safety standards.</p> <p>Dimensions: Compact, handheld design suitable for field use (approx. 150 mm × 30 mm × 25 mm).</p> <p>Weight: Lightweight, approximately 150 g for ease of portability.</p>	5
23	LCR Meter	Branded Company Product with at least three	<p>Display: Approximately 2.8" TFT touch LCD screen.</p> <p>Resolution: 25,000 or above counts resolution on both primary and secondary</p>	1

		years product warranty	<p>displays.</p> <p>Basic Accuracy: Within $\pm 0.2\%$ under standard conditions.</p> <p>Test Frequencies: Six or eight selectable frequencies depending on model variant.</p> <p>Measurement Combinations: Up to 15 different measurement combinations available.</p> <p>Test Level: Selectable AC test levels approximately 0.3 V, 0.7 V, and 1 V rms; DC test level selectable at ± 1 V.</p> <p>Measurement Speed: Selectable measurement speeds of approximately 10 measurements per second (fast) and 2.5 measurements per second (slow).</p> <p>Auto LCR Mode: Automatic identification and measurement of component types within supported ranges.</p> <p>Data Hold: Feature available to hold measured data on display.</p> <p>Interface: USB virtual COM port provided for remote communication capabilities.</p> <p>Software: Datalogging software available for data capture and analysis.</p>	
24	Soldering Station	Branded Company Product with at least three years product warranty	<p>Power Rating: Approximately 60 W maximum output power.</p> <p>Temperature Range: Adjustable from approximately 200 °C up to 480 °C.</p> <p>Temperature Stability: Within ± 2 °C under normal operating conditions.</p> <p>Heating Element: Ceramic heating element for rapid heat-up and efficient temperature maintenance.</p> <p>Display: Digital or analog temperature display (depending on variant) for precise temperature control.</p> <p>Temperature Control: Adjustable via knob or digital interface with fine resolution.</p> <p>Power Supply: AC 220 V $\pm 10\%$, 50/60 Hz.</p> <p>Safety Features: Thermal cutoff and overload protection within required standards.</p> <p>Dimensions: Compact design with 100 mm \times 100 mm \times 90 mm (W \times H \times D) or above</p> <p>Weight: Approximately 1.5 kg for ease of portability and bench use.</p>	3
25	Digital Microscope	Branded Company Product with at least three years product warranty	<p>Specification: Magnification: 1600X</p> <p>Light source: 8 LED lights Resolution: 1920\times1080, 640\times480 Pixel: 30W</p> <p>Focal length: 3-40mm manual adjustment</p> <p>Support Android 4.2 or above/widows/Mac system</p>	1

26	Soldering Rework Station	Branded Company Product with at least three years product warranty	<p>Soldering Iron Power: Up to approximately 60 W output power with temperature adjustable within approximately 200 °C to 480 °C range. Heating Element: Needle bit with MCH heater providing rapid heat-up and stable temperature control within ± 2 °C.</p> <p>Hot Air Blower Power: Up to approximately 500 W output power with temperature adjustable within approximately 200 °C to 450 °C range, multiple nozzles included.</p> <p>Hot Air Features: Auto-pause function on placement in cradle, airflow adjustable within operational limits.</p> <p>DC Power Supply: Provides output voltage approximately 15 V up to 2 A maximum current plus 5 V USB output for auxiliary power.</p> <p>Control: Microcontroller-based system with LED indicators for temperature and mode selection.</p> <p>Safety: ESD-safe design compliant with applicable standards.</p> <p>Build: Metallic body with powder coating, approximate dimensions 280 mm \times 180 mm \times 140 mm (W \times H \times D).</p> <p>Weight: Approximately 3.5 kg.</p> <p>Power Source: AC 220 V $\pm 10\%$, 50/60 Hz.</p> <p>Accessories: Includes soldering iron with needle bit, hot air blower with 3 nozzles, iron stand with sponge, hot air cradle, patch cord, and power cord.</p> <p>Operating Temperature: Suitable for ambient temperature approximately 0 °C to 40 °C</p>	1
27	Hand Drill Machine	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Approximately 500 W or above maximum power consumption.</p> <p>Bit Holder: Standard 1/2"-20 UNF thread type.</p> <p>No-Load Speed (1st Gear): Adjustable from 0 up to approximately 3,000 rpm.</p> <p>Power Output: Approximately 300 W continuous output power.</p> <p>Weight: Approximately 1.7 kg total device weight.</p> <p>Impact Rate at No-Load Speed: Variable from 0 up to approximately 48,000 bpm.</p> <p>Rated Torque: Approximately 1.4 Nm maximum torque output.</p> <p>Drill Spindle Connecting Thread: Standard 1/2"-20 UNF thread.</p> <p>Chuck Capacity (Min/Max): Approximately 1.5 mm minimum to 13 mm maximum.</p>	2

28	Cordless drill	Branded Company Product with at	Torque (soft/hard/max.): Min 21/50/- Nm No-load speed (1st gear / 2nd gear): Min 0 – 500 / 0 – 1,900 rpm	2
		least three years product warranty	Weight incl. battery: 1.3 kg or less Max. impact rate: 27,000 bpm Battery type: Lithium-Ion or equivalent Chuck capacity, min./max.: 1.5 / 13 mm Weight excl. battery: 0.99 kg Torque settings: 20+2 or better	
29	Jig Saw	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 500 W maximum power consumption. Voltage, Electrical: Nominal 230 V AC supply. Saw Stroke Length: Approximately 20 mm stroke length. Stroke Rate at No Load: Adjustable within approximately 800 to 3,100 spm (strokes per minute). Weight: Approximately 2.08 kg total weight. Bevel Angle: Adjustable within approximately -45° to 45° range.	1
30	Miter Saw	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 1,750 W maximum power consumption. Saw Blade Diameter: Approximately 254 mm nominal diameter. Mitre Setting: Adjustable up to approximately 47° left and 52° right. Bevel Setting: Adjustable up to approximately 45° left and 0° right. Saw Blade Bore Diameter: Approximately 25.4 mm standard bore. Cutting Capacity at 0°: Approximately 90 mm × 130 mm maximum cross-section. Cutting Capacity at 45° Mitre: Approximately 90 mm × 91 mm maximum cross-section. Cutting Capacity at 45° Bevel: Approximately 60 mm × 130 mm maximum cross-section. Tool Dimensions (W×L×H): Approximately 477 mm × 559 mm × 567 mm. No-Load Speed: Fixed at approximately 5,000 rpm. Weight: Approximately 11.1 kg.	1

31	Hot air gun	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 1,800 W maximum power consumption. Voltage, Electrical: Nominal 230 V AC supply. Weight: Approximately 0.75 kg. Working Temperature Range: Adjustable within approximately 60 °C to 550 °C. Heat-Up Time: Approximately 1 second to reach target temperature. Airflow: Adjustable within approximately 350 to 550 liters per minute. Airflow Control: Three selectable airflow settings.	2
32	Table saw	Branded Company Product with at least three years product warranty	Rated input power: Max 1800 W Incline setting: 45 ° L / 0 ° R Table size: Up to 555 x 555 mm Saw blade diameter: 254 mm Cutting height 90°: 80 mm Cutting height 45°: 55 mm Saw blade bore diameter: 30 mm Weight 24.4 kg or less Max. cutting capacity on the right: 545 mm No-load speed: 4300 rpm Cutting height 90°: 80 mm Cutting height 45°: 55 mm	1
33	Bench grinder	Branded Company Product with at least three years product warranty	Grinding wheel diameter: min 150 mm Rated input power: 350 W or more Grinding wheel widths: 20 mm or more No-load speed: upto 3,000 rpm Grinding wheel bore: 20 mm/2cm Grit 24, 60 or more Weight: 10 kg or less	1
34	Angle Grinder	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 670 W maximum power consumption. No-Load Speed: Approximately 11,000 rpm. Disc Diameter: Approximately 100 mm nominal diameter. Grinding Spindle Thread: Standard M10 thread. Weight: Approximately 1.5 kg. Switch: Lockable switch for operational safety.	1

35	Straight Grinder	Branded Company Product with at least three years product warranty	Rated Input Power: Max 300 W power consumption. No-Load Speed: Up to 28,000 rpm. Voltage, Electrical: Nominal 230 V AC supply. Spindle Collar Diameter: Approximately 41 mm. Weight: Around 1.4 kg. Maximum Grinding Tool Diameter: Up to 25 mm. Maximum Collet Diameter: Up to 8 mm. Switch: Lockable switch for enhanced safety.	1
36	Circular Saw	Branded Company Product with at least three years product warranty	Rated Input Power: Approximately 1,400 W maximum consumption. Saw Blade Diameter: Nominal 184 mm diameter. Saw Blade Bore Diameter: About 20 mm standard bore size. Guide Rail Compatibility: Not compatible with guide rails. No-Load Speed: Typically 5,200 rpm. Weight: Around 4.1 kg	1
37	Blower	Branded Company Product with at least three years product warranty	Rated Input Power: Max 650 W power consumption. Weight: Approximately 1.7 kg. Voltage, Electrical: Nominal 230 V AC supply. Sound Pressure Level: Around 103 dB(A). Sound Power Level: Approximately 95 dB(A). Uncertainty (K): Within ± 3 dB	1
38	Cordless Screw Driver	Branded Company Product with at least three years product warranty	Battery Capacity: Around 1.5 Ah nominal capacity. Torque (Soft/Hard/Max): Approximately 14 Nm / 30 Nm / Maximum not specified. No-Load Speed (1st Gear / 2nd Gear): Ranges from 0 up to 400 rpm and 0 up to 1,500 rpm respectively. Battery Type: Rechargeable Lithium-Ion battery. Chuck Capacity (Min/Max): From approximately 0.8 mm up to 10 mm. Weight (Excluding Battery): About 0.8 kg. Torque Settings: 20 plus 1 adjustable settings.	1

39	Vacuum Cleaner	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Approximately 1,100 W maximum power consumption.</p> <p>Weight: Around 6 kg total weight. Container Volume (Net): Approximately 10 liters capacity.</p> <p>Voltage, Electrical: Nominal 230 V AC supply. Container Volume (Gross): Approximately 15 liters total volume.</p> <p>Container Volume (Net, Water): About 8 liters capacity for water.</p> <p>Filter Surface Area: Around 2,300 cm² effective filtration area.</p> <p>Airflow Rate (Turbine): Approximately 53 liters per second.</p> <p>Vacuum Pressure (Turbine): Up to 270 mbar vacuum pressure.</p> <p>Number of Wheels: Four wheels for mobility.</p>	1
40	Random orbit sander	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Up to 280 W maximum consumption.</p> <p>Sanding Pad Diameter: Nominal 125 mm diameter.</p> <p>Orbit Diameter: Approximately 2.6 mm orbital diameter.</p> <p>Weight: Around 1.4 kg.</p> <p>No-Load Speed: Adjustable within 7,500 to 12,000 rpm range.</p> <p>Orbital Stroke Rate: Between 15,000 and 24,000 orbits per minute (opm).</p> <p>Eccentricity: Approximately 1.3 mm.</p>	1
41	Planer	Branded Company Product with at least three years product warranty	<p>Rated Input Power: Not exceeding 710 W under nominal operating conditions.</p> <p>Planing Width: Approximately 82 mm effective width capacity.</p> <p>Planing Depth: Within the range of up to 2.6 mm maximum depth per pass.</p> <p>Weight: Circa 2.8 kg total unit mass.</p> <p>Adjustable Rebating Depth: Maximum adjustable depth of approximately 9 mm.</p> <p>No-Load Speed: Operating speed typically around 18,000 rpm.</p>	1

42	Cordless Vacuum Cleaner with Starter kit	Branded Company Product with at least three years product warranty	<p>Battery Voltage: Rated at approximately 18.0 V nominal voltage.</p> <p>Weight Excluding Battery: Around 1.3 kg without battery attached.</p> <p>Container Volume: Approximately 0.7 liters net capacity.</p> <p>Filter Surface Area: Roughly 55 cm² filtration surface.</p> <p>Maximum Airflow Rate (Turbine): Up to 10 liters per second.</p> <p>Maximum Vacuum Pressure (Turbine): Not exceeding 60 mbar under standard conditions.</p> <p>Operating Time (18 V Battery): Typically 7 minutes per Ah of battery capacity.</p>	1
43	Rotary Tool Kit	Branded Company Product with at least three years product warranty	<p>Rated Power Input: Approximately 175 W within nominal voltage range.</p> <p>Voltage: Operates within 220 to 240 V AC supply.</p> <p>Weight: Around 0.66 kg total mass.</p> <p>Length: Approximately 24 cm overall length.</p> <p>Width: About 4.1 cm nominal width.</p> <p>Depth: Roughly 4.3 cm depth dimension.</p> <p>No-Load Speed: Variable speed ranging from 5,000 up to 35,000 rpm.</p> <p>Battery Technology: Not applicable (n.a.).</p> <p>Speed Setting: Fully variable speed control as required.</p> <p>Accessory Quick Change System: Equipped with multi chuck for rapid accessory interchange.</p> <p>Vibration Level: Approximately 18 m/s² measured vibration</p>	2
44	Rubber Grip Hacksaw	Very Good Quality	<p>Depth of Throat: Approximately 98 mm (3.85 inches) nominal depth.</p> <p>Blade Length: Around 254 mm (10 inches) standard length.</p>	2
45	Hacksaw Mini	Very Good Quality	<p>Blade Length: Approximately 10 inches nominal length.</p> <p>Handle Material: Constructed from metal as</p>	2
			<p>standard.</p> <p>Overall Length: Around 11 inches total length.</p>	
46	Claw Hammer Steel Shaft	Very Good Quality	<p>Weight: Approximately 8 oz (220 grams) nominal weight.</p> <p>Dimensions: Around 27.8 cm × 12.4 cm × 3.6 cm (L × W × H) overall size</p>	2

47	Ball Pein Hammer	Very Good Quality	Weight: Approximately 110 grams nominal weight. Dimensions: Around 32.6 cm × 10 cm × 2 cm (L × W × H) overall measurements.	2
48	Rubber mallet	Very Good Quality	Weight: Approximately 450 grams nominal weight. Dimensions: Around 33.6 cm × 9.6 cm × 6.2 cm (L × W × H) overall size.	2
49	Ring spanner set 12Pcs	Very Good Quality	Weight: 3.08 Kg nominal weight. Quantity: 12 pcs per set. Size: 6 mm to 32 mm overall range.	1
50	Open end spanner set 12Pcs	Very Good Quality	Weight: Approx 1.74Kg nom.wt. Qty: 12pcs/set. Size: 6mm-32mm overall dims.	1
51	Combination Spanner set 8Pcs	Very Good Quality	Weight: Approx 649g nom.wt. Qty: 8pcs/set.	1
52	Allen key set 10pcs	Very Good Quality	Hex Key Size: 1.5, 2, 2.5, 3, 4, 5, 5.5, 6, 8, 10mm; Qty: 10pcs/set	2
53	Allen key set 12pcs	Very Good Quality	Ball Key Size: 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8" Qty: 12pcs/set	2
54	Combination plier	Very Good Quality	Weight: Approx 422g nom.wt. Size: 8"/200mm nominal	2
55	Long nose plier	Very Good Quality	Weight: Approx 399g nom.wt. Size: 180mm/6" nominal	2
56	Circlip straight 5"	Very Good Quality	Weight: Approx 399g nom.wt. Size: 130mm/5" nominal	2
57	Circlip bent	Very Good Quality	"Weight: Approx 399g nom.wt. Size: 130mm/5" nominal"	2
58	Diagonal Cutter	Very Good Quality	"Weight: Approx 239g nom.wt. Size: 180mm nominal"	2
59	Wire Stripper	Very Good Quality	Weight: Approx 281g nom.wt. Size: 130mm nominal	2
60	Adjustable spanner	Very Good Quality	Size: Upto 150 mm	2

61	Pipe wrench	Very Good Quality	Size: Max 300 mm	2
62	C – clamp	Very Good Quality	Size: Upto 75 mm	4
63	C-clamp	Very Good Quality	Size: Upto 150 mm	4
64	Snap- off Knife	Very Good Quality	Size:18 mmm	2
65	16pcs screw driver set	Very Good Quality	Pieces Per Set: 16 pcs	1
66	6pcs precision screw driver set	Very Good Quality	Pieces Per Set: 16 pcs	2
67	Max steel snip cutter	Very Good Quality	Length: 250 mm	2
68	PVC Pipe cutter	Very Good Quality	Length: 42 mm	2
69	Hot Glue Gun	Very Good Quality	Power: 40 W	4
70	Small file set	Very Good Quality	Length: 160 mm	2
71	Big file set	Very Good Quality	Length: 200 mm	2
72	Chisel set	Very Good Quality	Weight: 340 gm	2
73	Punch set	Very Good Quality	Weight: 390 gm	2
74	Bench wise	Very Good Quality	Base Type: Fixed Size:2–3½" nominal JawWidth:60mm	2
75	Router Bit Starter Kit	Very Good Quality	Pieces Per Set: 15 pcs	1
76	Drill bit set	Very Good Quality	WAF(mm):1,1.5,2,2.5,3,3.5,4,4.5,5,5.5,6,6.5,7,7.5,8,8.5,9,9.5,10,10.5,11,11.5,12,12.5,13 Wt:~1.3Kg nom.wt Sz(mm):205×115×55 overall	2

77	Baby wise	Very Good Quality	Vice Type: Bench Size:2" nominal JawWidth:50mm	2
78	Ratchet Set	Very Good Quality	Vice Type: Bench Sz:2" nominal; Jaw:50mm	2
79	Pegboard	Very Good Quality		5
80	Digital Vernier Caliper	Very Good Quality	Product Type: Digital Calliper Meas.Range:0–150mm / 0–6" Resolution:0.01mm	2
81	Micrometer	Very Good Quality	Resolution:0.001mm/0.00005" Meas.Range:0–25mm/0–1"	1
82	Steel Rule 300mm	Very Good Quality	Product Type: Steel Rule ScaleSize:12"/300mm Material: Stainless Steel	5
83	Steel Rule 600mm	Very Good Quality	Product Type: Steel Rule ScaleSize:24"/600mm Material: Stainless Steel	5
84	Engineering Square	Very Good Quality	Size:150×80mm nominal Material: Carbon Steel	2
85	Meter Tape 30m	Very Good Quality	Length: 30 m	1
86	Measuring Tape 3M	Very Good Quality	Length: 3 m	3
87	Measuring Tape 5M	Very Good Quality	Length: 5 m	3
88	Spirit Level	Very Good Quality	Vials:3 Accuracy:0.5mm/m Length:300mm Product Type: Level	3
89	Goggles	Very Good Quality	Goggles – Industrial Standard Make	5
90	Apron	Very Good Quality	Apron - Standard Make	5
91	Ear Muff	Very Good Quality	Earmuff – Industrial Standard Make	5
92	Mask	Very Good Quality	Mask – Industrial Standard Make	50

93	Fire Extinguisher	Very Good Quality	Fire Extinguisher– Industrial Standard Make	6
94	First Aid Kit	Very Good Quality	First Aid Kit – Industrial Standard Make	2
95	Gloves Pair	Very Good Quality	Gloves – Industrial Standard Make	10
96	Normal Oven	Branded Company Product with at least three years product warranty	Oven Cap: 20L or more Type: Solo Door: Side Swing Child Lock: Yes Completion Beeper: Yes Power Levels: upto 5 Control: Membrane Type Cavity Mat: Anti-Bacterial Dims(mm):455×252×320 PowerOut:700W or less	1
97	Refrigerator	Branded Company Product with at least three years product warranty	Capacity:183L or more AnnualEnergyConsumption:148kWh/Year or less RefrigeratorFreshFoodCapacity:165L or more Freezer Capacity: min 18L BottleCount:5 or more NoiseLevel:40dB or less Installation Type: Freestanding	1
98	Smart Board	Branded Company Product with at least three years product warranty	Display Size: Approx 75Inch (190 cm) Up to Resolution: 4KUHDorHigher Brightness: Min 350 nits; Typ400nitsApprox Contrast Ratio: Typ 1200: 1Upto Response Time: Approx 8ms Viewing Angle: Approx178DegreesWide WorkingFrequency:1.5GHzNominal RAM:4GBOrMore InternalStorage:32GBMin OS: Android Based HDMI: 3Ports USB: 2Ports Sensing Type: Infrared Touch Frame Surface Protection: 4mm Toughened Glass Or Equivalent Infrared Touch Points: 20Approx Voltage:DC+5V±5%Range OPS: Optional	1

99	Projector	Branded Company Product with at least three years product warranty	Projection Tech: RGB liquid crystal shutter projection (3LCD) Up to Connectivity: USB Type B: 1port (FirmwareUpdate/Copy OSD) Approx AnalogInput:D-Sub15pin:1port Digital Input: HDMI:1port Projection Lens: Type: No Optical Zoom/Focus (Manual)Nominal FocalLength:16.70mm Approx	1
			FNumber:1.44 Nominal Zoom:1.44-1.95 Ratio (Wide to Tele) ThrowRatioRange:1.00–1.35(Digital Zoom Approx	

100	Printer	Branded Company Product with at least three years product warranty	<p>Functions: Print, Scan, Copy Printer Type: Laser Nominal Dims(mm):409×398.5×267Approx Weight:9.7KgNominal PrintSpeed:Upto30ppm(A4Size)Approx Warranty:1 YearOn-Site PrintResolution:600×600dpi,HQ1200(2400×600dpi) Quality Approx 2Sided-Duplex- PaperType:Plain,Thin,RecycledApprox 2Sided-Duplex-PaperSize:A4 PaperHandling:Tray#1- PaperType:Plain,Thin,Recycled Tray#1- MaxCapacity:Upto250Sheets(80g/m²)Approx PaperOutput:Upto100Sheets(80g/m²)FaceDownTray;OneSheetFaceUpTrayApprox Copy- Colour /Mono: Yes/Yes Multiple Copies: Sorts/StacksUpto99PagesApprox Enlarge/Reduce:25%-400%(In1 %Steps)Approx CopyResolution:600×600dpi 2Sided-Duplex- CopyPaperType:Plain,Thin,Recycled 2Sided-Duplex-CopyPaperSize:A4 Scan- ResolutionInterpolated:Upto19200×19200dpiApprox Scan- ResolutionGlass:Upto600×2400dpiApprox Connectivity:Hi-SpeedUSB2.0 DisplayType:16Chars×2Lines MemoryCapacity:32MBAprox PowerSource:220-240VAC50/60Hz PowerConsumption-Ready:Approx60W PowerConsumption-Sleep:Approx6.6W PowerConsumption-Off:Approx0.08W NoiseLevel:50dB(A)Approx</p>	1
101	Desktop	Branded Company Product with at least three years product warranty	<p>CPU: INTEL CORE I7-12THGEN or Higher RAM:8GB+512GB SSD or more Conn: LAN+WIFI+BLUTOOTH+KEYMOUSE Display:20" DESKTOP MONITOR</p>	5
102	3D printer Filament	Very Good Quality	<p>Weight Kg: 1 Approx Melt Flow Index: 2 (190°C/2.16kg) Nominal FilamentLength:330mApprox Dim Accuracy: +/-0.1mmApprox</p>	10

			Roundness Accuracy: +/-0.5mmApprox SpoolInnerDia:55mmNominal SpoolOuterDia:200mmApprox SpoolWeight:300gNominal SpoolWidth:65mmApprox	
103	Acrylic Sheet 3mm, 4ft x 4ft	Very Good Quality		20
104	Acrylic Sheet 4mm, 4ft x 4ft	Very Good Quality		20
105	Acrylic Sheet 5mm, 4ft x 4ft	Very Good Quality		20
106	Foam Sheet 8mm, 4ft x 4ft	Very Good Quality		2
107	Foam Sheet 10mm, 4ft x 4ft	Very Good Quality		1
108	Foam Sheet 12mm, 4ft x 4ft	Very Good Quality		1
109	Foam Sheet 15mm, 4ft x 4ft	Very Good Quality		1
110	Ply Board 5mm, 2ft x 4ft	Very Good Quality		12
111	Nylon Rod 10mm, 1m	Very Good Quality		5
112	Nuts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	Very Good Quality		1
113	Bolts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) dia 1” Inch Pack of 100	Very Good Quality		1
114	Screws (3mm,4mm,5mm) Pack of 100	Very Good Quality		1

115	Washers (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	Very Good Quality		1
116	Studs (6mm,8mm) 1 Meter	Very Good Quality		2
117	Nails (1",2",3",1.5",5") Pack of 100	Very Good Quality		1
118	Fevicol 2Kg	Very Good Quality		1
119	2 Way Tape	Very Good Quality		10
120	PVC Pipe .75",10ft	Very Good Quality		10
121	PVC Pipe 1",10ft	Very Good Quality		10
122	PVC Pipe 1.5",10ft	Very Good Quality		10
123	PVC Pipe 2.0",10ft	Very Good Quality		10
124	Aluminium channels (L, C, Box, strip length 12ft)	Very Good Quality		2
125	PCB Drill Bit 0.4mm	Very Good Quality		10
126	PCB Drill Bit 0.8mm	Very Good Quality		10
127	PCB Drill Bit 1mm	Very Good Quality		10
128	Drill Bit 4mm	Very Good Quality		10
129	Drill Bit 5mm	Very Good Quality		10

130	Drill Bit 6mm	Very Good Quality		10
131	Arduino UNO R3	Very Good Quality		5
132	Arduino NANO	Very Good Quality		5

133	Arduino Mega	Very Good Quality		3
134	Raspberry Pi Model 4B, 4GB	Very Good Quality		3
135	ESP8266 NodeMCU	Very Good Quality		2
136	ESP32 Development Board	Very Good Quality		2
137	Beaglebone blu	Very Good Quality		1
138	Beaglebone Black	Very Good Quality		1
139	Voltage Regulator Module	Very Good Quality		2
140	Mini Micro submersible Water Pump	Very Good Quality		2
141	Piezoelectric Plate	Very Good Quality		2
142	8*8 LED Matrix Module	Very Good Quality		2
143	Bluetooth	Very Good Quality		2
144	7 Segment LED Display	Very Good Quality		2
145	GSM/GPRS/GPS Module	Very Good Quality		2

146	Laser Module	Very Good Quality		2
147	LDR Module	Very Good Quality		2
148	4×4 Matrix Keypad	Very Good Quality		2
149	Joy Stick Module	Very Good Quality		2

150	Active Buzzer (BIG)	Very Good Quality		2
151	Active Buzzer (SMALL)	Very Good Quality		2
152	Motor Driver	Very Good Quality		2
153	Sound Playback Module	Very Good Quality		2
154	BO Motors	Very Good Quality		10
155	Vibrating Motor	Very Good Quality		10
156	Capacitive Touch Switch	Very Good Quality		2
157	IR Sensors (Obstacle Sensors)	Very Good Quality		2
158	Triple Axis Magnetometer	Very Good Quality		2
159	Humidity Sensor	Very Good Quality		2
160	MQ-2	Very Good Quality		2
161	MQ-3	Very Good Quality		2

162	MQ-4	Very Good Quality		2
163	MQ-5	Very Good Quality		2
164	MQ-7	Very Good Quality		2
165	Ultrasonic Sensor Module	Very Good Quality		2
166	Triple Axis accelerometer	Very Good Quality		2

167	PIR Motion Detector Module	Very Good Quality		2
168	Pulse Rate Heart Sensor	Very Good Quality		2
169	Relay Module	Very Good Quality		2
170	Soil Moisture Sensor	Very Good Quality		2
171	Touch Sensor	Very Good Quality		2
172	Rain Drop Sensor	Very Good Quality		2
173	Flex Sensor	Very Good Quality		2
174	Temperature Sensor	Very Good Quality		2
175	Force Pressure Sensor	Very Good Quality		2
176	Colour Recognition Sensor	Very Good Quality		2
177	Water Flow Sensor	Very Good Quality		2

178	Sound Sensor	Very Good Quality		2
179	IR Sensor Array for Line Following	Very Good Quality		2
180	RFID Reader-Tags	Very Good Quality		2
181	RF Modules Tx& Rx 315 MHz ASK	Very Good Quality		2
182	Stepper motor with Driver Board	Very Good Quality		2
183	Servo Motor 360 rotation	Very Good Quality		10

184	Servo Motor 180 rotation	Very Good Quality		10
185	Metal Gear Servo Motor (180° Rotation)	Very Good Quality		10
186	Solder Wire 100gm	Very Good Quality		10
187	Solder Flux	Very Good Quality		10
188	830 Points Solderless Breadboard	Very Good Quality		5
189	400 Points Solderless Breadboard	Very Good Quality		5
190	Copper Clad Board single side	Very Good Quality		10
191	Copper clad board double side	Very Good Quality		10
192	Male to Male Breadboard Jumper	Very Good Quality		10
193	Female to Female Breadboard Jumper	Very Good Quality		10
194	Male to Female Breadboard Jumper	Very Good Quality		10

Annexure - A
FINANCIAL BID

S. No.	Description of Items/Work	Unit	Qty.	Basic unit Price (in INR)	Total Price (in INR)
1.	Set up of IDEA LAB (As per the given Equipment List)	Set	01		
Applicable GST Charges					
Other charges (If Any)					
Grand Total					
Price in words					

Note: Please also attached an Item wise price of Equipment List for Setup of IDEA LAB

Annexure- B

MANUFACTURERS' AUTHORIZATION FORM

(On Manufacturers' Letter Head)

To,
Faculty Coordinator,
AICTE Idea Lab, Silicon Institute of Technology
Silicon Hills, Patia, Bhubaneswar

Subject: Manufacturer Authorization for Participation in AICTE IDEA Lab Implementation Tender

Dear Sir/Madam,

We, M/s. **[OEM/BIDDER Name]**, having our registered office at **[OEM/BIDDER Address]**, is a well-established manufacturer of **[mention key equipment/products: e.g., 3D Printers, Electronics Modules, Robotics Kits, AR/VR Kits, IoT Systems, etc.]**, and hereby authorizes M/s. **[Bidder/System Integrator Name]**, having their office at **[Bidder Address]**, is to submit a bid, supply the products, and provide associated services for the AICTE IDEA Lab Implementation Project.

We confirm the M/s. **[Bidder Name]** is our authorized representative for this AICTE IDEA Lab project. The products quoted in this tender are manufactured and supported by us and meet the specifications mentioned in the AICTE tender document.

This authorization shall remain valid for the duration of the tender/project and any extension thereof.

Thanking you,

Yours faithfully,
For M/s. [OEM/BIDDER Name]
(Signature of Authorized Signatory)

Name:

Designation:

Contact Details:

Company Seal

Annexure – C

SITE INSPECTION CERTIFICATE

(Letter Head)

We[firm name]
hereby confirm that we have visited the buyer's premises/implementation site on _____[date] in the presence of a
designated buyer's representative.

We hereby further declare that we have understood in full the site-preparation requirement of the buyer on the site.
Our firm will submit this certificate, ensuring installation along with the bid technical document.

We lastly confirm that appropriate costing for the same has been included in the financial bid/quote and that no cost
escalation shall be approved for such work.

Date: _____

Firm's Name and Seal: _____

Buyer's Representative's Name and Signature: _____

Annexure-D

Affidavit certifying that the Bidder is not blacklisted/debarred or not indulged in Corrupt or fraudulent practices

(Rs. 100 Non-Judicial Stamp)

Certificate of tendered that

"I/ We have not been debarred or black listed or suspended or debarred from the business from any department of the Central Government of India/ State Government/ PSU/ any other government/semi-government department, etc. During the last three years from the bid due date".

"I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, in respect of any tender or request for proposal issued by or any Agreement entered into with Authority or any other public sector enterprise or any government, Central or State.

Date:

Place:

Authorized signatory:

Annexure-E

(Rs. 50 or More Non - Judicial Stamp)

LOCAL ADDRESS DECLARATION

We, _____ hereby declare that we have local office address at _____ We hereby declare that the mentioned office will serve the purpose of delivery and Warranty related Terms and Conditions.

We hereby also declare that the mentioned office will be available for future communications and will serve as the Service Center.

Date:

Firm's Name and Seal:

Annexure-F

(Letter Head)

Warranty Certificate

1. Warranty (total 1 Year Warranty) declaration with all terms and conditions with no additional Charges.
2. Free Service, commissioning, and installation on-site declaration with no additional cost.

Date:

Firm's Name and Seal:

Annexure-G

(Letter Head)

Compliance Sheet

Sr. No	Equipment	Qty	Specifications	Deviation (Yes/No)
1	Single Nozzle 3D printer	1	<p>Printing Technology: Fused Filament Fabrication (FFF) or Fused Deposition Modeling (FDM).</p> <p>Printable Area: The minimum printable area should be at least 310 x 310 x 310 mm or above</p> <p>Printer Design: Core XY or Cartesian. Temperature Range: Hot end: Up to 300°C or above Heat bed: Up to 120°C. or above.</p> <p>Nozzle: Compatible with All polymers, 0.4, 0.6 and 0.8mm</p> <p>Steel Sheet: Provided with satin or smooth PEI surface.</p> <p>Filament Diameter: 1.75mm (supports PLA, PETG, ASA, ABS, etc.).</p> <p>Extruder: Gearbox with 1/10 ratio, Speed : 550 MM/Sec or above</p> <p>Stepper Drivers for smooth motion. or equivalent</p> <p>Stepper Motors: Choose between 1.8° or precise 0.9° X, Y stepper motors.</p> <p>LCD Screen: 3.5" graphic 65k color screen or larger.</p> <p>Connectivity: USB drive, LAN, or internet. Supported</p> <p>Materials: PLA, PETG, ASA, ABS, PP, PC, flexible filaments, and more.</p> <p>Wi-Fi Module: Built-in (network connectivity not required for setup or operation).</p> <p>Compatibility: Windows, macOS, Linux.</p> <p>Printer Dimensions: The maximum physical dimensions of the system 700 X 700 X 700 or above. Fully enclosed Machine.</p>	

2	PCB Milling Machine	1	<p>Cutable Materials: Modeling Wax, Chemical Wood, Foam, Acrylic, Poly Acetate, ABS, PCB, Copper glad, etc</p> <p>Table Size: 225 (X) × 150 (Y) mm or more</p> <p>Drive System: Stepping Motor (X, Y, Z Axis) Operating Speed: 800 mm/min</p> <p>Software Resolution: 0.01 mm/step Position accuracy : 0.01 to 0.02 mm</p> <p>Max Travel Speed (mm/sec)-58 (2.28 ") Drilling (mm)-0.2 - 3.175 (8-125 mil) Maximum Drilling Cycles/ Min-50</p> <p>Spindle Motor: DC Motor Type 380 or More Spindle Speed: Adjustable 20,000 and above rpm or more</p> <p>Tool Chuck Type: Collet Interface: USB or cable</p> <p>Control Commands: RML-1, NC code Power Supply: DC 24V, 2.5A (via AC 100– 240V, 50/60Hz adapter)</p> <p>Power Consumption: Approx. 50 W or more</p>	
3	CO ₂ Laser Cutting Machine	1	<p>Working Area: Min 600 x 900 mm or above Laser Type: CO₂ DC Glass Laser Tube/RF Metal Laser Tube</p> <p>Laser Power: 80/100W</p> <p>Wave Length: Upto 10.6 Micrometer Cutting Speed: 30000 mm/min or more Engraving Speed: 64000 mm/min or more</p> <p>XY Axis: LM Guide Rail or equivalent Cooling: Air/ Water Cooling</p> <p>Supply Voltage: 230V/415 V Accessories: CO₂ Focus Lens: 1 No. Mirror 25mm: 3 Nos. Acetone: 1 litre Acrylic sheet: 2 Nos</p>	
4	Vinyl Printer	1	<p>Dimensions: 50 cm x 15 cm x 15 cm or above Weight: 15.4 lbs or less</p> <p>Max cut size using machine mat: 11.5 inch x 23.5 inch or more</p> <p>Cut speed: up to 14.1 ips</p>	
5	3D Scanner	1	<p>Technology: Stereo camera structured light with focusable cameras or equivalent</p> <p>CPU: Quad-core 64-bit SoC, 1.5GHz with integrated GPU</p> <p>RAM: 4 GB</p> <p>Projector: DLP MEMS mirror or equivalent Camera Sensor: Sony 13 MP or better</p> <p>Scan Speed: 4 seconds or more Working Distance : Effective Working Distance: 160mm-1400mm</p> <p>Scan Speed : 980,000points/s, up to 14FPS</p> <p>Align Modes : Feature Alignment, Hybrid Alignment, Texture Alignment, Global Markers</p>	

			<p>Safety : Eye-safe Texture Scan : Yes</p> <p>Interface : USB2.0 or above Outdoor Scanning : Yes</p> <p>Output Formats : OBJ; STL; PLY; P3; 3MF</p> <p>Scanning Environment: Indoor and outdoor (shaded)</p> <p>Texture / Color Scanning: Yes</p> <p>Minimum Capturable Feature Size: 0.2 mm or less</p> <p>Scanner Weight: 500 grams or less</p> <p>Scanner Dimensions: upto 240 × 60 × 60 mm Compatible</p> <p>OS: Any OS supporting a modern web browser</p>	
6	Lathe Machine cum milling	1	<p>Centre Width: Up to 400 mm or better Height of Centers: Up to 88 mm</p> <p>Maximum Workpiece Diameter: Up to 100 mm</p> <p>Machine Base: Cross-ribbed surface, high- quality cast iron with ground prismatic guide, capable of fitting milling/drilling attachment Spindle: Supported with adjustable taper roller bearings</p> <p>Spindle Receiver: MK3 or compatible Spindle Drill Hole: Up to 22 mm or better Spindle Concentricity: Up to 5 microns or better</p> <p>Chuck: 3-jaw chuck as per DIN 6386, centrally clamped, 100 mm diameter or better Run Out (without Chuck): Up to 10 microns</p> <p>Sleeve Receiver: MK2, retractable sleeve with scale</p> <p>Spindle Speed Range: Between 50 to 2500 rpm</p> <p>Speed Stages: 6-8</p> <p>Motor Rating: 550W or better, induction motor, single phase 230V</p> <p>Traverse</p> <p>Cross: Up to 70 mm or better Traverse Longitudinal: Up to 300 mm or better</p> <p>Weight (Complete): Up to 55 kg or more</p> <p>Additional Accessories:</p> <p>Splash guard and chip collecting tray: 1 No. Cutter set with tungsten inserts: 2 Nos.</p> <p>Milling Attachment: 1nos</p> <p>Tungsten disposable tips ten-piece set: 1 No. Sample workpieces (Nylon Rod, Aluminium Rod)</p> <p>Desktop: 1 No.</p>	
7	CNC Router	1	<p>Working Area: Min 1300 x 2500 mm Z Axis Working Area: 200 or above Resolution: ±0.03/300mm or more CNC</p> <p>Spindle: 3KW or more</p> <p>Lathe Structure : Welding Steel Structure or equivalent</p> <p>XYZ Structure: Rack Pinion , Ball Screw Linear Rails</p> <p>Max Spindle Speed : Min 18000RPM Table: T-Slot/Vacuum Bed/Water Bed Repeatability: ±0.03</p> <p>Working Mode: Stepper Motor/Servo Motor Dust Collector :</p> <p>To be included by Vendor Voltage: AC 220V/415V, 50/60 Hz, 3 Phase</p>	

8	Belt and Disc Sanding Machine	1	Motor: 230V 50Hz Power: 380W S2 30min No-load Speed: 1450rpm or more Belt Size: 100x914mm or less Disc Size: 150mm or better Table Titing Range: 0°-45° Belt Titing Range: 0°-90° Table Size: upto 190x125mm	
9	Scroll Saw	1	Power input: 50 Watt Thickness of Cut: 50 mm (2 inch) Throat: 406 mm (16 inch) Length of Stroke: 18 mm (11/16 inch) Strokes Per Minute: 400-1,600 SPM Overall Length: 600 mm (23-5/8 inch)	
10	Wood Turning Lathe	1	Motor: 230V~50Hz, 550W, S2:15min or above Max. Disc Diameter: min 75 mm Max. Cutting Length: 450 mm or more Spindle Speed: 5 speeds such as 1600 / 2600 / 3200 RPM etc Material: Cast Iron Bed Height: 0.2 m Cable Length: 0.850 m	
11	Bench Top Drill Machine	1	Continuous rating input: Max. 250 W Capacity: Steel: Min 13 mm (1/2") Wood: Min 24 mm (15/16") No Load Speed (RPM): 570, 890, 1,300, 1,900, 2,670(50 Hz), 690, 1,070, 1,560, 2,280, 3,200(60 Hz) Net weight: Max. 20 kg (44.1 lbs.) Power supply cord: 1.75 m (5.7 ft) Additional Accessories: Bench Vise: 1 No., Drill Bit Set 10 Pcs: 1 No	
12	Portable Welding Machine	1	Welding Current (at 40°C, 10 min cycle): 120A @ 100%, 150A @ 60%, 200A @ 35% Supply Voltage: 240V +10%, -15%, 1 Phase, 50/60 Hz Open Circuit Voltage: 55V DC ±5V Welding Current Range: 15–200 Amps DC Insulation Class: F Type Ingress Protection: IP21 Dimensions (L×W×H) with Handle: upto 320×120×195 mm Weight (Approx.): 4.3 kg or less	

13	Computerized Sewing Machine	1	<p>Motor: 120 W Max Sewing Speed: 860 SPM Power: 220 - 240 V Automation Grade: Automatic Max Stitch Length: 4mm Thread Type: Computerized Weight: 7.6 kg Number of Stitches: 120 Size/Dimension: 50.8 cm x 29.464 cm x 40.64 cm Maximum Stitch Width: 7 mm Number of Buttonhole Styles: 7 LCD Screen Display: Yes Bed Type Free Arm/Flatbed convertible Bobbin Type Drop & Sew Bobbin System</p>	
14	Filament Dehydrator	1	<p>Operating Temperature Range: Min 45°C– 70°C Drying Time Setting: 0–48 hours or higher Hot-Air Heating: upto 360° circulation Moving Speed: 300 mm/s or more Power Rating: 160 W Shipping Weight: 2.5 kg</p>	
15	Reflow Oven	1	<p>No. of Waves: 7 or higher Heating Type: Infrared IC Heater Max. PCB Width: 300×320 mm or more Power Supply: AC 220V / 50Hz Peak Power: 1500W Cycle Time: 1–8 min or less Temperature Range: 0°C– 280°C Overall Dimensions: min 350×450 mm Machine Weight: upto 25 kg</p>	

16	Digital multimeter	5	<p>Display Count: Up to 4000</p> <p>DC Voltage Range: Up to 1000 V AC Voltage Range: Up to 1000 V</p> <p>DC Voltage Accuracy: $\pm 0.5\%$ or ± 3 digits, whichever is higher</p> <p>AC Voltage Accuracy: Within $\pm 1\% + 3$ digits</p> <p>DC Current Measurement: Up to 10 A</p> <p>AC Current Measurement: Maximum 10 A DC Current Accuracy: $\pm 1.5\% + 3$ digits (approximate)</p> <p>AC Current Accuracy: $\pm 1.5\% + 3$ digits (typical)</p> <p>Resistance Measurement: Up to 40 MΩ Resistance Accuracy: Estimated at $\pm 1.5\% + 3$ digits</p> <p>Capacitance Measurement: Up to 1000 μF Capacitance Accuracy: $\pm 5\%$ or ± 5 digits</p> <p>Operating Temperature Range: From 0°C up to approximately 40°C</p> <p>Storage Temperature Range: Between -30°C and 60°C</p> <p>Overall Dimensions (H×W×L): Approximately 183×91×49.5 mm</p> <p>Unit Weight: Around 455 grams</p> <p>Safety Compliance: As per IEC 61010-1 & IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification</p>	
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17	MSO 100 MHz	1	<p>Bandwidth: Up to 100 MHz Analog Channels: 4 or more Real-Time Sampling Rate: Maximum 1 GSa/s per channel Memory Depth: 10 Mpts per channel Waveform Update Rate: Approximately 120,000 wfms/s Vertical Resolution: 8 bits Vertical Scale: Ranging from 1 mV/div to 10 V/div Horizontal Scale: Spanning 1 ns/div to 100 s/div Spectrum Analyzer Frequency Range: DC to 500 MHz FFT Points: Up to 1M points for enhanced frequency domain resolution Waveform Math Functions: Includes addition, subtraction, multiplication, division, minimum, maximum, root, square, absolute, inverse, derivative, integral, and low-pass filter Trigger Types: Edge, Pulse Width, Video, Pulse Runt, Rise & Fall (slope), Alternate, Timeout, Event-Delay, Time-Delay, and Bus Arbitrary Waveform Generator (AWG): Dual- channel, 25 MHz, supporting various waveforms such as sine, square, pulse, ramp, DC, noise, sinc, Gaussian, Lorentz, exponential rise/fall, haversine, and cardiac AWG Sample Rate: 200 MSa/s AWG Vertical Resolution: 14 bits Display: 8-inch WVGA TFT LCD (800 × 480 pixels) Data Logging Capability: Up to 1000 hours Segmented Memory: Supports up to 29,000 segments for efficient waveform storage and retrieval Connectivity: USB 2.0 (host and device), Ethernet (RJ45), and Go-NoGo BNC Dimensions (W × H × D): 380× 200× 125 mm or above Weight: 2 Kgs or above Safety Compliance: Conforms to IEC 61010-1 and IEC 61010-2-030 standards, suitable for CAT III 600V and CAT II 1000V environments with Pollution Degree 2 classification</p>
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18	Digital oscilloscope	1	<p>Number of Channels: Up to 2 independent analog inputs</p> <p>Memory Record Length: Up to 10 Mpts for extended waveform capture</p> <p>Bandwidth Limiting: Selectable 20 MHz bandwidth filter</p> <p>Sampling Rate: Maximum of 1 GSa/s real-time equivalent per channel</p> <p>Rise Time: ≤ 3.5 ns depending on probe and settings</p> <p>Display: 7" TFT color LCD with 800×480 resolution</p> <p>Time Base Range: From 5 ns/div to 100 s/div, user-adjustable</p> <p>Vertical Resolution: 8-bit digital resolution</p> <p>Trigger Modes: Automatic, Normal, and Signal-dependent triggering</p> <p>Maximum Input Voltage: 300 Vrms (within safety limits)</p> <p>Input Sensitivity: Within the range of 1 mV/div to 10 V/div</p> <p>Input Coupling Options: Selectable among AC, DC, and Ground</p> <p>Trigger Coupling Modes: Configurable as AC, DC, High-pass, or Low-pass</p> <p>Physical Dimensions: Approximately 350 × 200 × 120 mm or above</p> <p>Unit Weight: 2.5 kg or above</p> <p>Input Impedance: Nominal 1 MΩ // 16 pF</p> <p>Measurement Capabilities: Equipped for automatic parameter extraction, background noise filtering, and AUTOSET configuration for display scaling (time base/gain)</p> <p>Protocol Decoding Support: Capable of analyzing I2C, SPI, UART, CAN, and LIN communication protocols</p> <p>Standard Accessories: Includes mains power cable, user manual (digital format), and one GTL-16E probe per input channel</p>	
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19	Power supply	1	<p>Output Configuration: 4-channel design with independent electrical isolation across all outputs</p> <p>Channel Output Ranges:</p> <ul style="list-style-type: none"> • CH1 & CH2: Adjustable output voltage from 0 to 32V with a current delivery capacity up to 3A • CH3: Variable range 0 to 5V supporting up to 1A • CH4: Output adjustable from 0 to 15V with a load current of up to 1A <p>Constant Voltage Operating Mode Line Regulation: $\leq 0.01\% + 3 \text{ mV}$ (approximate value within rated voltage range)</p> <p>Load Regulation: $\leq 0.01\% + 3 \text{ mV}$ (across rated load variation)</p> <p>Ripple & Noise: $\leq 1 \text{ mVrms}$ across full bandwidth</p> <p>Constant Current Operating Mode Line Regulation: $\leq 0.2\% + 3 \text{ mA}$</p> <p>Load Regulation: $\leq 0.2\% + 3 \text{ mA}$ Ripple Current: $\leq 3 \text{ mArms}$ (typical)</p> <p>Safety & Operational Features</p> <p>Output Control: Independent output ON/OFF switching functionality is required</p> <p>Voltage Resolution: Approximately 100 mV (*1)</p> <p>Current Resolution: Approximately 10 mA (*1)</p> <p>Display Parameters</p> <p>Display Units: Four separate displays required for individual channel status visualization</p> <p>Display Type: 4.3-inch LCD (color or monochrome as applicable)</p> <p>Functional Features</p> <p>Tracking Operation: Supported (required for synchronizing output behavior)</p> <p>Auto Series/Parallel: Supported (automatic internal reconfiguration required)</p> <p>Power Requirements</p> <p>Supply Input: 230V AC $\pm 10\%$, 50 Hz</p> <p>Mechanical Specifications</p> <p>Maximum Dimensions (W \times H \times D): Within 200 mm \times 100 mm \times 200 mm</p> <p>Maximum Weight: 10 kg or less</p>
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20	Function Generator	1	<p>Output Function: The equipment shall provide output waveforms including sine, square, triangle, and TTL signals as required.</p> <p>Frequency Range: For sine and square waveforms: approximately 0.1 Hz up to 3 MHz. For triangle waveform: approximately 0.1 Hz up to 1 MHz.</p> <p>Frequency Resolution: Frequency resolution shall be maintained within a maximum of 0.1 Hz.</p> <p>Frequency Stability: The frequency stability shall be within ± 20 ppm (parts per million).</p> <p>Frequency Accuracy: The frequency accuracy shall be maintained within ± 20 ppm.</p> <p>Frequency Aging: Frequency aging shall not exceed ± 5 ppm per annum.</p> <p>Amplitude Range: Output amplitude shall be up to 10 V peak-to-peak (V_{p-p}) into a 50 Ω load.</p> <p>Amplitude Accuracy: Amplitude accuracy shall be within $\pm 20\%$ at maximum amplitude setting.</p> <p>Output Impedance: Nominal output impedance shall be 50 Ω with a tolerance of $\pm 10\%$.</p> <p>Attenuator: A single-step attenuator of -40 dB ± 1 dB shall be provided.</p> <p>Display: A 6-digit LED display shall be incorporated for parameter indication.</p> <p>Output Control: Output shall be controlled via an ON/OFF selector switch.</p> <p>Power Source: The device shall operate on an AC supply of 240 V, 220 V, or 110 V $\pm 10\%$, with frequency 50/60 Hz.</p> <p>Ambient Operating Temperature: Normal operation shall be ensured within the ambient temperature range of 0 °C to 40 °C.</p> <p>Dimensions: Maximum dimensions shall not exceed 255 mm (W) \times 95 mm (H) \times 295 mm (D).</p> <p>Weight: Maximum device weight shall be within 2.5 kg.</p>
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21	Bench Top Multimeter	1	<p>DC Voltage: Range: 500 mV to 1000 V across 5 ranges. Accuracy: $\pm(0.03\% \text{ rdg} + 4 \text{ digits})$.</p> <p>Input impedance: 10 MΩ. AC Voltage (True RMS): Range: 500 mV to 1000 V across 5 ranges. Accuracy: $\pm(0.5\% - 5\% \text{ rdg} + \text{digits})$ depending on frequency and range. Input impedance: 10 MΩ.</p> <p>DC Current: Range: 500 μA to 20 A across 6 ranges. Accuracy: $\pm(0.02\% - 0.3\% \text{ rdg} + 2 \text{ digits})$ depending on range.</p> <p>AC Current (True RMS): Range: 500 μA to 20 A across 6 ranges. Accuracy: $\pm(0.5\% - 1\% \text{ rdg} + \text{digits})$ depending on frequency. Resistance: Range: 500 Ω to 20 MΩ across 6 ranges. Accuracy: $\pm(0.1\% - 0.3\% \text{ rdg} + \text{digits})$ depending on range.</p> <p>Diode Test: Max forward voltage 1.5 V, open voltage 2.8 V.</p> <p>Capacitance: Range: 5 nF to 50 μF. Accuracy: $\pm(2\% \text{ rdg} + 4 \text{ digits})$.</p> <p>Frequency: Input level varies by range; functions include Auto/Manual Range, Max, Min, dBm, Rel, Hold.</p> <p>Continuity Beep: Threshold $<5 \Omega$.</p> <p>Display: Dual 7-segment LED, 0.4" and 0.5". Power Source: AC 100/120/230 V $\pm 10\%$, 50/60 Hz.</p> <p>Dimensions & Weight: Approximately 251 \times 91 \times 291 mm; 2.6 kg.</p>	
22	Non-Contact Voltage Tester	5	<p>Function: Non-contact AC voltage detection tester.</p> <p>Voltage Detection Range: Approximately 90 V to 1000 V AC.</p> <p>Detection Method: Capacitive, with visual and audible indication.</p> <p>Sensitivity: Adjustable sensitivity for different voltage ranges.</p> <p>Response Time: Instantaneous detection within standard operating conditions.</p> <p>Indicators: Bright LED indicators and audible beep for voltage presence.</p> <p>Operating Environment: Suitable for use in ambient temperatures from 0 $^{\circ}\text{C}$ to 40 $^{\circ}\text{C}$. Power Source: Powered by standard batteries (typically 2 \times AAA or equivalent).</p> <p>Safety Standards: Complies with IEC/EN 61010-1 CAT III 1000 V safety standards.</p> <p>Dimensions: Compact, handheld design suitable for field use (approx. 150 mm \times 30 mm \times 25 mm).</p> <p>Weight: Lightweight, approximately 150 g for ease of portability.</p>	
23	LCR Meter	1	<p>Display: Approximately 2.8" TFT touch LCD screen.</p> <p>Resolution: 25,000 or above counts resolution on both primary and secondary displays.</p> <p>Basic Accuracy: Within $\pm 0.2\%$ under standard conditions.</p> <p>Test Frequencies: Six or eight selectable frequencies depending on model variant.</p>	

			<p>Measurement Combinations: Up to 15 different measurement combinations available.</p> <p>Test Level: Selectable AC test levels approximately 0.3 V, 0.7 V, and 1 V rms; DC test level selectable at ± 1 V.</p> <p>Measurement Speed: Selectable measurement speeds of approximately 10 measurements per second (fast) and 2.5 measurements per second (slow).</p> <p>Auto LCR Mode: Automatic identification and measurement of component types within supported ranges.</p> <p>Data Hold: Feature available to hold measured data on display.</p> <p>Interface: USB virtual COM port provided for remote communication capabilities.</p> <p>Software: Datalogging software available for data capture and analysis.</p>	
24	Soldering Station	3	<p>Power Rating: Approximately 60 W maximum output power.</p> <p>Temperature Range: Adjustable from approximately 200 °C up to 480 °C. Temperature Stability: Within ± 2 °C under normal operating conditions.</p> <p>Heating Element: Ceramic heating element for rapid heat-up and efficient temperature maintenance.</p> <p>Display: Digital or analog temperature display (depending on variant) for precise temperature control.</p> <p>Temperature Control: Adjustable via knob or digital interface with fine resolution.</p> <p>Power Supply: AC 220 V $\pm 10\%$, 50/60 Hz. Safety Features: Thermal cutoff and overload protection within required standards.</p> <p>Dimensions: Compact design with 100 mm \times 100 mm \times 90 mm (W \times H \times D) or above Weight: Approximately 1.5 kg for ease of portability and bench use.</p>	
25	Digital Microscope	1	<p>Specification: Magnification: 1600X Light source: 8 LED lights Resolution: 1920\times1080, 640*480 Pixel: 30W Focal length: 3-40mm manual adjustment Support Android 4.2 or above/widows/Mac system</p>	

26	Soldering Rework Station	1	<p>Soldering Iron Power: Up to approximately 60 W output power with temperature adjustable within approximately 200 °C to 480 °C range. Heating Element: Needle bit with MCH heater providing rapid heat-up and stable temperature control within ± 2 °C.</p> <p>Hot Air Blower Power: Up to approximately 500 W output power with temperature adjustable within approximately 200 °C to 450 °C range, multiple nozzles included.</p> <p>Hot Air Features: Auto-pause function on placement in cradle, airflow adjustable within operational limits.</p> <p>DC Power Supply: Provides output voltage approximately 15 V up to 2 A maximum current plus 5 V USB output for auxiliary power.</p> <p>Control: Microcontroller-based system with LED indicators for temperature and mode selection.</p> <p>Safety: ESD-safe design compliant with applicable standards.</p> <p>Build: Metallic body with powder coating, approximate dimensions 280 mm \times 180 mm \times 140 mm (W \times H \times D).</p> <p>Weight: Approximately 3.5 kg.</p> <p>Power Source: AC 220 V $\pm 10\%$, 50/60 Hz. Accessories: Includes soldering iron with needle bit, hot air blower with 3 nozzles, iron stand with sponge, hot air cradle, patch cord, and power cord.</p> <p>Operating Temperature: Suitable for ambient temperature approximately 0 °C to 40 °C</p>	
27	Hand Drill Machine	2	<p>Rated Input Power: Approximately 500 W or above maximum power consumption.</p> <p>Bit Holder: Standard 1/2"-20 UNF thread type.</p> <p>No-Load Speed (1st Gear): Adjustable from 0 up to approximately 3,000 rpm.</p> <p>Power Output: Approximately 300 W continuous output power.</p> <p>Weight: Approximately 1.7 kg total device weight.</p> <p>Impact Rate at No-Load Speed: Variable from 0 up to approximately 48,000 bpm.</p> <p>Rated Torque: Approximately 1.4 Nm maximum torque output.</p> <p>Drill Spindle Connecting Thread: Standard 1/2"-20 UNF thread.</p> <p>Chuck Capacity (Min/Max): Approximately 1.5 mm minimum to 13 mm maximum.</p>	

28	Cordless drill	2	<p>Torque (soft/hard/max.): Min 21/50/- Nm No-load speed (1st gear / 2nd gear): Min 0 – 500 / 0 – 1,900 rpm Weight incl. battery: 1.3 kg or less Max. impact rate: 27,000 bpm Battery type: Lithium-Ion or equivalent Chuck capacity, min./max.: 1.5 / 13 mm Weight excl. battery: 0.99 kg Torque settings: 20+2 or better</p>	
29	Jig Saw	1	<p>Rated Input Power: Approximately 500 W maximum power consumption. Voltage, Electrical: Nominal 230 V AC supply. Saw Stroke Length: Approximately 20 mm stroke length. Stroke Rate at No Load: Adjustable within approximately 800 to 3,100 spm (strokes per minute). Weight: Approximately 2.08 kg total weight. Bevel Angle: Adjustable within approximately -45° to 45° range.</p>	
30	Miter Saw	1	<p>Rated Input Power: Approximately 1,750 W maximum power consumption. Saw Blade Diameter: Approximately 254 mm nominal diameter. Mitre Setting: Adjustable up to approximately 47° left and 52° right. Bevel Setting: Adjustable up to approximately 45° left and 0° right. Saw Blade Bore Diameter: Approximately 25.4 mm standard bore. Cutting Capacity at 0°: Approximately 90 mm × 130 mm maximum cross-section. Cutting Capacity at 45° Mitre: Approximately 90 mm × 91 mm maximum cross-section. Cutting Capacity at 45° Bevel: Approximately 60 mm × 130 mm maximum cross-section. Tool Dimensions (W×L×H): Approximately 477 mm × 559 mm × 567 mm. No-Load Speed: Fixed at approximately 5,000 rpm. Weight: Approximately 11.1 kg.</p>	
31	Hot air gun	2	<p>Rated Input Power: Approximately 1,800 W maximum power consumption. Voltage, Electrical: Nominal 230 V AC supply. Weight: Approximately 0.75 kg. Working Temperature Range: Adjustable within approximately 60 °C to 550 °C. Heat-Up Time: Approximately 1 second to reach target temperature. Airflow: Adjustable within approximately 350 to 550 liters per minute. Airflow Control: Three selectable airflow settings.</p>	

32	Table saw	1	<p>Rated input power: Max 1800 W Incline setting: 45 ° L / 0 ° R Table size: Up to 555 x 555 mm Saw blade diameter: 254 mm Cutting height 90°: 80 mm Cutting height 45°: 55 mm Saw blade bore diameter: 30 mm Weight 24.4 kg or less Max. cutting capacity on the right: 545 mm No-load speed: 4300 rpm Cutting height 90°: 80 mm Cutting height 45°: 55 mm</p>	
33	Bench grinder	1	<p>Grinding wheel diameter: min 150 mm Rated input power: 350 W or more Grinding wheel widths: 20 mm or more No-load speed: upto 3,000 rpm Grinding wheel bore: 20 mm/2cm Grit 24, 60 or more Weight: 10 kg or less</p>	
34	Angle Grinder	1	<p>Rated Input Power: Approximately 670 W maximum power consumption. No-Load Speed: Approximately 11,000 rpm. Disc Diameter: Approximately 100 mm nominal diameter. Grinding Spindle Thread: Standard M10 thread. Weight: Approximately 1.5 kg. Switch: Lockable switch for operational safety.</p>	
35	Straight Grinder	1	<p>Rated Input Power: Max 300 W power consumption. No-Load Speed: Up to 28,000 rpm. Voltage, Electrical: Nominal 230 V AC supply. Spindle Collar Diameter: Approximately 41 mm. Weight: Around 1.4 kg. Maximum Grinding Tool Diameter: Up to 25 mm. Maximum Collet Diameter: Up to 8 mm. Switch: Lockable switch for enhanced safety.</p>	
36	Circular Saw	1	<p>Rated Input Power: Approximately 1,400 W maximum consumption. Saw Blade Diameter: Nominal 184 mm diameter. Saw Blade Bore Diameter: About 20 mm standard bore size. Guide Rail Compatibility: Not compatible with guide rails. No-Load Speed: Typically 5,200 rpm. Weight: Around 4.1 kg</p>	

37	Blower	1	<p>Rated Input Power: Max 650 W power consumption.</p> <p>Weight: Approximately 1.7 kg.</p> <p>Voltage, Electrical: Nominal 230 V AC supply. Sound Pressure Level: Around 103 dB(A).</p> <p>Sound Power Level: Approximately 95 dB(A). Uncertainty (K): Within ± 3 dB</p>	
38	Cordless Screw Driver	1	<p>Battery Capacity: Around 1.5 Ah nominal capacity.</p> <p>Torque (Soft/Hard/Max): Approximately 14 Nm / 30 Nm / Maximum not specified.</p> <p>No-Load Speed (1st Gear / 2nd Gear): Ranges from 0 up to 400 rpm and 0 up to 1,500 rpm respectively.</p> <p>Battery Type: Rechargeable Lithium-Ion battery.</p> <p>Chuck Capacity (Min/Max): From approximately 0.8 mm up to 10 mm. Weight (Excluding Battery): About 0.8 kg.</p> <p>Torque Settings: 20 plus 1 adjustable settings.</p>	
39	Vacuum Cleaner	1	<p>Rated Input Power: Approximately 1,100 W maximum power consumption.</p> <p>Weight: Around 6 kg total weight. Container Volume (Net): Approximately 10 liters capacity.</p> <p>Voltage, Electrical: Nominal 230 V AC supply. Container Volume (Gross): Approximately 15 liters total volume.</p> <p>Container Volume (Net, Water): About 8 liters capacity for water.</p> <p>Filter Surface Area: Around 2,300 cm² effective filtration area.</p> <p>Airflow Rate (Turbine): Approximately 53 liters per second.</p> <p>Vacuum Pressure (Turbine): Up to 270 mbar vacuum pressure.</p> <p>Number of Wheels: Four wheels for mobility.</p>	
40	Random orbit sander	1	<p>Rated Input Power: Up to 280 W maximum consumption.</p> <p>Sanding Pad Diameter: Nominal 125 mm diameter.</p> <p>Orbit Diameter: Approximately 2.6 mm orbital diameter.</p> <p>Weight: Around 1.4 kg.</p> <p>No-Load Speed: Adjustable within 7,500 to 12,000 rpm range.</p> <p>Orbital Stroke Rate: Between 15,000 and 24,000 orbits per minute (opm).</p> <p>Eccentricity: Approximately 1.3 mm.</p>	

41	Planer	1	<p>Rated Input Power: Not exceeding 710 W under nominal operating conditions.</p> <p>Planing Width: Approximately 82 mm effective width capacity.</p> <p>Planing Depth: Within the range of up to 2.6 mm maximum depth per pass.</p> <p>Weight: Circa 2.8 kg total unit mass.</p> <p>Adjustable Rebating Depth: Maximum adjustable depth of approximately 9 mm. No-Load Speed: Operating speed typically around 18,000 rpm.</p>	
42	Cordless Vacuum Cleaner with Starter kit	1	<p>Battery Voltage: Rated at approximately 18.0 V nominal voltage.</p> <p>Weight Excluding Battery: Around 1.3 kg without battery attached.</p> <p>Container Volume: Approximately 0.7 liters net capacity.</p> <p>Filter Surface Area: Roughly 55 cm² filtration surface.</p> <p>Maximum Airflow Rate (Turbine): Up to 10 liters per second.</p> <p>Maximum Vacuum Pressure (Turbine): Not exceeding 60 mbar under standard conditions.</p> <p>Operating Time (18 V Battery): Typically 7 minutes per Ah of battery capacity.</p>	
43	Rotary Tool Kit	2	<p>Rated Power Input: Approximately 175 W within nominal voltage range.</p> <p>Voltage: Operates within 220 to 240 V AC supply.</p> <p>Weight: Around 0.66 kg total mass.</p> <p>Length: Approximately 24 cm overall length. Width: About 4.1 cm nominal width.</p> <p>Depth: Roughly 4.3 cm depth dimension.</p> <p>No-Load Speed: Variable speed ranging from 5,000 up to 35,000 rpm.</p> <p>Battery Technology: Not applicable (n.a.). Speed Setting: Fully variable speed control as required.</p> <p>Accessory Quick Change System: Equipped with multi chuck for rapid accessory interchange.</p> <p>Vibration Level: Approximately 18 m/s² measured vibration</p>	
44	Rubber Grip Hacksaw	2	<p>Depth of Throat: Approximately 98 mm (3.85 inches) nominal depth.</p> <p>Blade Length: Around 254 mm (10 inches) standard length.</p>	
45	Hacksaw Mini	2	<p>Blade Length: Approximately 10 inches nominal length.</p> <p>Handle Material: Constructed from metal as standard.</p> <p>Overall Length: Around 11 inches total length.</p>	

46	Claw Hammer Steel Shaft	2	Weight: Approximately 8 oz (220 grams) nominal weight. Dimensions: Around 27.8 cm × 12.4 cm × 3.6 cm (L × W × H) overall size	
47	Ball Pein Hammer	2	Weight: Approximately 110 grams nominal weight. Dimensions: Around 32.6 cm × 10 cm × 2 cm (L × W × H) overall measurements.	
48	Rubber mallet	2	Weight: Approximately 450 grams nominal weight. Dimensions: Around 33.6 cm × 9.6 cm × 6.2 cm (L × W × H) overall size.	
49	Ring spanner set 12Pcs	1	Weight: 3.08 Kg nominal weight. Quantity: 12 pcs per set. Size: 6 mm to 32 mm overall range.	
50	Open end spanner set 12Pcs	1	Weight: Approx1.74Kg nom.wt. Qty: 12pcs/set. Size: 6mm-32mm overall dims.	
51	Combination Spanner set 8Pcs	1	Weight: Approx649g nom.wt. Qty: 8pcs/set.	
52	Allen key set 10pcs	2	Hex Key Size: 1.5,2,2.5,3,4,5,5.5,6,8,10mm; Qty:10pcs/set	
53	Allen key set 12pcs	2	BallKeySize:1/16",5/64",3/32",7/64",1/8",9/64",>5/32",3/16",7/32",1/4",5/16",3/8" Qty:12pcs/set	
54	Combination plier	2	Weight: Approx422g nom.wt. Size: 8"/200mm nominal	
55	Long nose plier	2	Weight: Approx399g nom.wt. Size:180mm/6" nominal	
56	Circlip straight 5"	2	Weight: Approx399g nom.wt. Size:130mm/5" nominal	
57	Circlip bent	2	"Weight: Approx399g nom.wt. Size:130mm/5"" nominal"	
58	Diagonal Cutter	2	"Weight: Approx239g nom.wt. Size:180mm nominal"	
59	Wire Stripper	2	Weight: Approx281g nom.wt. Size:130mm nominal	
60	Adjustable spanner	2	Size: Upto 150 mm	

61	Pipe wrench	2	Size: Max 300 mm	
62	C – clamp	4	Size: Upto 75 mm	
63	C-clamp	4	Size: Upto 150 mm	
64	Snap- off Knife	2	Size:18 mmm	
65	16pcs screw driver set	1	Pieces Per Set: 16 pcs	
66	6pcs precision screw driver set	2	Pieces Per Set: 16 pcs	
67	Max steel snip cutter	2	Length: 250 mm	
68	PVC Pipe cutter	2	Length: 42 mm	
69	Hot Glue Gun	4	Power: 40 W	
70	Small file set	2	Length: 160 mm	
71	Big file set	2	Length: 200 mm	
72	Chisel set	2	Weight: 340 gm	
73	Punch set	2	Weight: 390 gm	
74	Bench wise	2	Base Type: Fixed Size:2–3½" nominal JawWidth:60mm	
75	Router Bit Starter Kit	1	Pieces Per Set: 15 pcs	
76	Drill bit set	2	WAF(mm):1,1.5,2,2.5,3,3.5,4,4.5,5,5.5,6,6.5,7,7.5,8,8.5,9,9.5,10,10.5,11,11.5,12,12.5,13 Wt:~1.3Kg nom.wt Sz(mm):205×115×55 overall	
77	Baby wise	2	Vice Type: Bench Size:2" nominal JawWidth:50mm	

78	Ratchet Set	2	Vice Type: Bench Sz:2" nominal; Jaw:50mm	
79	Pegboard	5		
80	Digital Vernier Caliper	2	Product Type: Digital Calliper Meas.Range:0–150mm / 0–6" Resolution:0.01mm	
81	Micrometer	1	Resolution:0.001mm/0.00005" Meas.Range:0–25mm/0–1"	
82	Steel Rule 300mm	5	Product Type: Steel Rule ScaleSize:12"/300mm Material: Stainless Steel	
83	Steel Rule 600mm	5	Product Type: Steel Rule ScaleSize:24"/600mm Material: Stainless Steel	
84	Engineering Square	2	Size:150×80mm nominal Material: Carbon Steel	
85	Meter Tape 30m	1	Length: 30 m	
86	Measuring Tape 3M	3	Length: 3 m	
87	Measuring Tape 5M	3	Length: 5 m	
88	Spirit Level	3	Vials:3 Accuracy:0.5mm/m Length:300mm Product Type: Level	
89	Goggle	5	Goggle – Industrial Standard Make	
90	Apron	5	Apron - Standard Make	
91	Ear Muff	5	Earmuff – Industrial Standard Make	
92	Mask	50	Mask – Industrial Standard Make	
93	Fire Extinguisher	6	Fire Extinguisher– Industrial Standard Make	
94	First Aid Kit	2	First Aid Kit – Industrial Standard Make	
95	Gloves Pair	10	Gloves – Industrial Standard Make	

96	Normal Oven	1	Oven Cap: 20L or more Type: Solo Door: Side Swing Child Lock: Yes Completion Beeper: Yes Power Levels: upto 5 Control: Membrane Type Cavity Mat: Anti-Bacterial Dims(mm):455×252×320 PowerOut:700W or less	
97	Refrigerator	1	Capacity:183L or more AnnualEnergyConsumption:148kWh/Year or less RefrigeratorFreshFoodCapacity:165L or more Freezer Capacity: min 18L BottleCount:5 or more NoiseLevel:40dB or less Installation Type: Freestanding	
98	Smart Board	1	Display Size: Approx 75Inch (190 cm) Up to Resolution: 4KUHDorHigher Brightness: Min 350 nits; Typ400nitsApprox Contrast Ratio: Typ 1200: 1Upto Response Time: Approx 8ms Viewing Angle: Approx 178DegreesWide WorkingFrequency:1.5GHzNominal RAM:4GBOrMore InternalStorage:32GBMin OS: Android Based HDMI: 3Ports USB: 2Ports Sensing Type: Infrared Touch Frame Surface Protection: 4mm Toughened Glass Or Equivalent Infrared Touch Points: 20Approx Voltage:DC+5V±5%Range OPS: Optional	
99	Projector	1	Projection Tech: RGB liquid crystal shutter projection (3LCD) Up to Connectivity: USB Type B: 1port (FirmwareUpdate/Copy OSD) Approx AnalogInput:D- Sub15pin:1port Digital Input: HDMI:1port Projection Lens: Type: No Optical Zoom/Focus (Manual)Nominal FocalLength:16.70mm Approx FNumber:1.44 Nominal Zoom:1.44-1.95 Ratio (Wide to Tele) ThrowRatioRange:1.00–1.35(Digital Zoom Approx	

100	Printer	1	<p>Functions: Print, Scan, Copy Printer Type: Laser Nominal Dims(mm):409×398.5×267Approx Weight:9.7KgNominal PrintSpeed:Upto30ppm(A4Size)Approx Warranty:1 YearOn-Site</p> <p>PrintResolution:600×600dpi,HQ1200(2400× 600dpi)</p> <p>Quality Approx</p> <p>2Sided-Duplex-</p> <p>PaperType:Plain,Thin,RecycledApprox 2Sided-Duplex-</p> <p>PaperSize:A4</p> <p>PaperHandling:Tray#1-</p> <p>PaperType:Plain,Thin,Recycled Tray#1-</p> <p>MaxCapacity:Upto250Sheets(80g/m²)Approx</p> <p>PaperOutput:Upto100Sheets(80g/m²)FaceDownTray;OneSheetFaceUpTrayApprox</p> <p>Copy- Colour /Mono: Yes/Yes Multiple Copies:</p> <p>Sorts/StacksUpto99PagesApprox Enlarge/Reduce:25%-400%(In1%Steps)Approx CopyResolution:600×600dpi</p> <p>2Sided-Duplex-</p> <p>CopyPaperType:Plain,Thin,Recycled 2Sided-Duplex-</p> <p>CopyPaperSize:A4 Scan-</p> <p>ResolutionInterpolated:Upto19200×19200dpiApprox</p> <p>Scan-</p> <p>ResolutionGlass:Upto600×2400dpiApprox Connectivity:Hi-SpeedUSB2.0</p> <p>DisplayType:16Chars×2Lines</p> <p>MemoryCapacity:32MBApprox</p> <p>PowerSource:220-240VAC50/60Hz PowerConsumption-Ready:Approx60W PowerConsumption-Sleep:Approx6.6W</p> <p>PowerConsumption-Off:Approx0.08W</p> <p>NoiseLevel:50dB(A)Approx</p>	
101	Desktop	5	<p>CPU: INTEL CORE I7-12THGEN or Higher</p> <p>RAM:8GB+512GB SSD or more</p> <p>Conn: LAN+WIFI+BLUTOOTH+KEYMOUSE</p> <p>Display:20" DESKTOP MONITOR</p>	
102	3D printer Filament	10	<p>Weight Kg: 1 Approx</p> <p>Melt Flow Index: 2 (190°C/2.16kg) Nominal</p> <p>FilamentLength:330mApprox</p> <p>Dim Accuracy: +/-0.1mmApprox Roundness Accuracy: +/-0.5mmApprox SpoolInnerDia:55mmNominal</p> <p>SpoolOuterDia:200mmApprox SpoolWeight:300gNominal</p> <p>SpoolWidth:65mmApprox</p>	
103	Acrylic Sheet 3mm, 4ft x 4ft	20		
104	Acrylic Sheet 4mm, 4ft x 4ft	20		

105	Acrylic Sheet 5mm, 4ft x 4ft	20		
106	Foam Sheet 8mm, 4ft x 4ft	2		
107	Foam Sheet 10mm, 4ft x 4ft	1		
108	Foam Sheet 12mm, 4ft x 4ft	1		
109	Foam Sheet 15mm, 4ft x 4ft	1		
110	Ply Board 5mm, 2ft x 4ft	12		
111	Nylon Rod 10mm, 1m	5		
112	Nuts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	1		
113	Bolts (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) dia 1" Inch Pack of 100	1		
114	Screws (3mm,4mm,5mm) Pack of 100	1		
115	Washers (3mm,4mm,5mm, 6mm,8mm,10mm, 12mm) Pack of 100	1		
116	Studs (6mm,8mm) 1 Meter	2		
117	Nails (1",2",3",1.5",5") Pack of 100	1		
118	Fevicol 2Kg	1		
119	2 Way Tape	10		
120	PVC Pipe .75",10ft	10		

121	PVC Pipe 1",10ft	10		
122	PVC Pipe 1.5",10ft	10		
123	PVC Pipe 2.0",10ft	10		
124	Aluminium channels (L, C, Box, strip length 12ft)	2		
125	PCB Drill Bit 0.4mm	10		
126	PCB Drill Bit 0.8mm	10		
127	PCB Drill Bit 1mm	10		
128	Drill Bit 4mm	10		
129	Drill Bit 5mm	10		
130	Drill Bit 6mm	10		
131	Arduino UNO R3	5		
132	Arduino NANO	5		
133	Arduino Mega	3		
134	Raspberry Pi Model 4B, 4GB	3		
135	ESP8266 NodeMCU	2		
136	ESP32 Development Board	2		
137	Beaglebone blu	1		
138	Beaglebone Black	1		

139	Voltage Regulator Module	2		
140	Mini Micro submersible Water Pump	2		
141	Piezoelectric Plate	2		
142	8*8 LED Matrix Module	2		
143	Bluetooth	2		
144	7 Segment LED Display	2		
145	GSM/GPRS/GPS Module	2		
146	Laser Module	2		
147	LDR Module	2		
148	4×4 Matrix Keypad	2		
149	Joy Stick Module	2		
150	Active Buzzer (BIG)	2		
151	Active Buzzer (SMALL)	2		
152	Motor Driver	2		
153	Sound Playback Module	2		
154	BO Motors	10		
155	Vibrating Motor	10		
156	Capacitive Touch Switch	2		

157	IR Sensors (Obstacle Sensors)	2		
158	Triple Axis Magnetometer	2		
159	Humidity Sensor	2		
160	MQ-2	2		
161	MQ-3	2		
162	MQ-4	2		
163	MQ-5	2		
164	MQ-7	2		
165	Ultrasonic Sensor Module	2		
166	Triple Axis accelerometer	2		
167	PIR Motion Detector Module	2		
168	Pulse Rate Heart Sensor	2		
169	Relay Module	2		
170	Soil Moisture Sensor	2		
171	Touch Sensor	2		
172	Rain Drop Sensor	2		
173	Flex Sensor	2		
174	Temperature Sensor	2		

175	Force Pressure Sensor	2		
176	Colour Recognition Sensor	2		
177	Water Flow Sensor	2		
178	Sound Sensor	2		
179	IR Sensor Array for Line Following	2		
180	RFID Reader-Tags	2		
181	RF Modules Tx& Rx 315 MHz ASK	2		
182	Stepper motor with Driver Board	2		
183	Servo Motor 360 rotation	10		
184	Servo Motor 180 rotation	10		
185	Metal Gear Servo Motor (180° Rotation)	10		
186	Solder Wire 100gm	10		
187	Solder Flux	10		
188	830 Points Solderless Breadboard	5		
189	400 Points Solderless Breadboard	5		
190	Copper Clad Board single side	10		
191	Copper clad board double side	10		
192	Male to Male Breadboard Jumper	10		

193	Female to Female Breadboard Jumper	10		
194	Male to Female Breadboard Jumper	10		