

LBD
Let's Build and Develop



IDEA Lab

By

LBD Robotics Private Limited



AICTE
IDEALab



Registered Vendor
On GEM

www.lbdrobotics.com

sales@lbdrobotics.com

Mob.: +91-8010317088, 9560119799





We, at **LBD Robotics** strive to provide quality products for our customers. As it is said that Great products build Great trust, we leave no stone unturned in ensuring quality for our products. Each and every detail of the product is monitored by our qualified engineers. We are dedicated towards developing quality products and enhancing them furthermore through regular feedback taken from our customers, and Clients.

We firmly believe that good relations with the customers is the sole reason behind the success of the product and we put in best of our efforts to maintain this relation. According to the market requirements and customers' demand, we are providing a wide range of Robotic components, materials Services

LBD provides products that are tested for their quality, durability while ensuring optimum pricing which helps us to provide the best solutions for everyone.

For any further information, reach us at saleslbdrobotics@gmail.com

Thank You



LBD Robotics Pvt. Ltd.

G-268, Ground Floor Sector - 63

Noida Uttar Pradesh - 201305

www.lbdrobotics.com

saleslbdrobotics@gmail.com

Contact No: +91-8010317088, 9560119799

Greetings from LBD Robotics. I take an opportunity to propose the establishment of an IDEA Lab in your institute to promote innovation and entrepreneurship among the students. The IDEA Lab will provide a platform for the students to showcase their innovative ideas, collaborate with industry experts, and transform their ideas into viable business models.

An IDEA Lab will provide our students with the necessary infrastructure, resources, and support services to work on their innovative ideas and projects. It will also provide them with access to state-of-the-art equipment and tools, mentorship and guidance from industry experts, and funding support for their projects.

Tentative cost of all equipment and consumables listed in Annexure I, Annexure II and Annexure III is as follows:

SI No	Package	No of Items in The package	Total Cost
1.	Mandatory Equipment of Annexure I	29	1492550/-
2.	Mandatory Consumables of Annexure I	35	234040/-
3.	General & Mechanical Tools of Annexure II	38	308775/-
4.	Electrical Tools of Annexure II	25	315825/-
5.	Networking Tools of Annexure II	05	71500/-
6.	Additional Equipments of Annexure III	04	650000/-
7.	Additional Consumables of Annexure III	09	447500/-
	Total		3520190/-
	GST 18%		633634.2/-
	Including GST		4153824.2/-

The equipment and infrastructure required in an IDEA Lab may vary depending on the specific focus and objectives of the lab. However, some of the common equipment and tools that can be considered for an IDEA Lab are:

1. Computers and software for design, simulation, and prototyping
2. 3D printers, laser cutters, and other rapid prototyping tools
3. Electronics workbench for circuit design and testing
4. Power tools for mechanical prototyping and fabrication
5. Audio-visual equipment for presentations and video conferencing
6. Robotics kits and microcontrollers for building and programming robots
7. Sensors and actuators for IoT-based projects
8. Virtual and augmented reality equipment for immersive experiences
9. Machine learning and data analytics tools for data-driven innovation
10. Test and measurement equipment for testing and validation of prototypes

Apart from the above-mentioned equipment, an IDEA Lab may also require specialized equipment based on the specific focus and objectives of the lab. It is important to regularly review and update the equipment and infrastructure to ensure that they are up-to-date and meet the changing needs of the students and the industry.



We believe that the establishment of an IDEA Lab in your institute will be a significant step towards promoting innovation and entrepreneurship culture among your students. We request your support and guidance in making this initiative a success.

Thank you for considering our proposal. We look forward to your favourable response.

Director

MR. KUMAR MAYANK

List of Equipment

Mandatory Equipment of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		Laser Cutter	Usage/Application: IndustrialCutting Material: Acrylic Automation Grade: AutomaticLaser Power: Automatic Power: Electric Frequency: 60 Hz Voltage: 220V Working Area: 8 x 4 feet"	1	60000/-
2		Vinyl Culter	Max force: 800g Auto contour cut: camera Motor: stepper Processor memory: 128mb Cutting precision: +/-0.01mm Repeat precision: 0.082m Max moving speed: 700mm/s Connector interface: USB/WiFi Power: <100W"	1	30000/-
3		3D Printer	Extruder Quantity: 1Nozzle Diameter: 0.4mm, 0.6/0.3mm Max Extruder Temperature: 265°C Filament Compatibility: PLA, ABS, PC, PETG, PLA-CFPrint Volume: 220*200*250mmLayer Thickness: 0.1mm-0.4mm Screen: 4.3-inch touch screenInternal Storage: 8G Camera: 1Software: FlashPrint/Cura/Slic3rConnectivity: USB stick, Wi-Fi, Ethernet"	1	120000/-
4		3D Scanner	Supported OS : 64-bit Windows 8 or laterOperating range: 0.2m - 1.6mOperating temperature: 10-40° CMaximal image throughput: 30 fpsDepth image size: 640 x 480 pxData interface: USB 3.0Colour image size: 1920 x 1080 px"	1	94000/-
5		CNC Router	Color: Black Product Size: 600 * 540 * 285mm Working Area: 420 * 400mm Power Supply: 24V 2A Stepping Motor: 42 * 48mm Limit Switch: Yes Precision: 0.01mm Wavelength: 450±5nm	1	21000/-
6		Mini Desktop Lathe Cum Milling	Motor speed Power: 12VDC/2A/24W, Table size: 90 x 90mm Material: Aluminum,Carbon steel, ABS The max.thickness of cut:hard wood: 4mm, polywood: 7mm, softwood: 18mm,sheet metal: 0.5mm, plexi-glass: 2mm	1	26500/-







List of Equipment

Mandatory Equipment of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
7		Drilling M/c 1 HP Motor	Machine Height: 590 mm Column Diameter: 46 mm Input Power: 350W Spindle Speed Settings: 5 Table Size: 160x160 mm Type of Product: Drill Press Base Size: 291x183 mm No Load Speed: 580-2650 RPM"	1	10000/-
8		Handheld High Speed Drilling M/c - 15000 RPM with accessories -	Battery voltage*: 18 V Battery type: Lithium-ion Torque : 21/54/- Nm No-load speed: 0 – 500 / 0 – 1,900 rpm Max. impact rate: 27,000 bpm Chuck capacity, min./max.: 1.5 / 13 mm Torque settings: 20+2 Tool holder: Three-jaw chuck"	1	7000/-
9		Benchtop Grinder Machine	Material: Plastic, Metal Item Dimensions LxWxH: 19.5 x 15 x 21.5 Centimeters Style: Modern Power Source: Corded Electric Colour: Blue Item Weight: 4200 Grams Wattage: 350 Watts"	1	15000/-
10		Solder stations (5 nos)	Hot Air Specs : Temp. range - 200 deg C - 480 deg C Power consumption 500W Integrated blower within hand held unit. Soldering Iron: Temp. range - 200 deg C - 450 degC Needle Bit Iron Supply 24Volts / 50Watts Earthed"	5	8400/-
11		Desoldering M/c	Color: Black Product Size: 600 * 540 * 285mm Working Area: 420 * 400mm Power Supply: 24V 2A Stepping Motor: 42 * 48mm Limit Switch: Yes Precision: 0.01mm Wavelength: 450±5nm	1	5000/-
12		Advanced, Motorized Sewing Machine	Type of Product: Industrial Sewing Machine Weight: 6 Kg Colour: White Voltage: 240 V Material: Metal Frame Sewing Speed: 750 SPM Shade No.: White Rated Frequency: 50 Hz Power Consumption: 70W Power Source: Corded Electric	1	25000/-

List of Equipment

Mandatory Equipment of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
13		Wood Lathe	Number of Memory Sticks: 1Item Weight: 6 kg 500 g Package Dimensions: 55 x 20 x 15 cm; 6.5 Kilograms Item part number: WL-580W"	5	50150/-
14		Power Tools	"Power Source: Corded Electric Voltage: 220 Volts (AC) Maximum Chuck Size: 0.51 Inches Included Components: All Accessories Included, Bag, Drill Bits, Case Product Dimensions: 34L x 9.5W x 30H Cms Speed: 2800 RPM"	1	6000/-
15		Portable Welding M/c	Frequency: 50-60Hz Input Current: 23.5 Amp Power: 4 kW Efficiency: 0.85 Insulation Class: F Power Factor: 0.73 No Load Voltage: 65 V Output Current: MMA: 20-140 Amp Voltage: 220 V ±15% Duty Cycle: 0.6T thickness: 0.5 mm"	1	3000/-
16		Portable Welding M/c	Temperature Range: 2°C to 8°C Temperature Accuracy: ± 0.5°C Exterior Door: Solid door with lock & keyInterior illumination: LED Light Refrigeration System: CFC Free Compressor Air Circulation: Motorized Blower / Axial fan Power supply: 220 Volts 50 Hz"	1	80000/-
17		Normal and Microwave Oven	Type: Convection Installation Type: Freestanding Capacity: 28L Colour: Black Control Method: Tact+Dial Door Type: Handle Cavity Material: Ceramic Enamel Display Type: LED (ice Blue)"	1	25000/-
18		Magnifying Glass with Stand-2 No.	Colour: White Light Source Type: White Finish Type: Polished Material: Stainless Steel Shade Material: Stainless Steel, Glass Base Material: Stainless Steel Power and Plug Description: Corded Electric	2	15000/-

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Mandatory Equipment of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
19		Digital Microscope	40x to 400x magnification 4.3"LCD touchscreen 5MP CMOS built-in digital camera fully achromatic objective lenses: 4x, 10x, 20x,40x Adjustable LED bottom illumination180° rotatable LCD screenAV/TV output Battery power option (4AA batteries)2GB SD card included (SD card slot supports up to 32GB)"	1	48000/-
20		Mixed Signal Oscilloscope	Bandwidth: 70 MHz Analog Channels: 2 Vertical Resolution: 8 bits Vertical Scale: 500 μ V/div to 10 V/div Timebase Scale: 5 ns/div to 1 ks/div Display: 9 inch Connectivity: USB Host & Device, LAN, HDMI Analog Channel Upgrade: 4 Channel"	1	200000/-
21		Digital Storage Oscilloscope	Bandwidth 100 MHz; 2-Channel Sample rate : 1GS/s; Ultra-thin body 7 inch high resolution LCD SCPI, and LabVIEW supported Vertical Resolution (A/D) 8 bits"	1	43200/-
22		Signal Generator	Dual-channel, 120MHz maximum bandwidth High-performance sampling system with 1.2GSa/s sampling rate Max output frequency: 120MHz Max sampling rate: 1.2GSa/s Vertical resolution: 16bit Wavelength: 8pts to 8Mpts Channels: 2CH"	1	40000/-
23		Variable Power Supply	Ultra-thin bodySMPS Based30V, 10A Adjustable- 200W constant power design Over voltage/over current protection Intelligent temperature control fan cooling 4 groups of Memory shortcut parameters for quick outputUSB Device communication port Constant voltage CV/constant current CC	1	20000/-
24		Benchtop Multimeter	"3.7 in high resolution LCD digital display screen An excellent tool for instruments and laboratoriesUp to 65 readings per second Support for two line display Maximum display: 55000 counts. Data logging function"	1	20000/-

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S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
25		Projector	Special Feature: 3300 Lumens in Colour Brightness & White Brightness, Speakers Connector Type: VGA, USB, HDMI Screen Resolution: 1024 x 768 Display Resolution Maximum: 1024 X 768 Pixels Form Factor: Portable Mounting Type: Ceiling Mount"	1	40000/-
26		Heavy Duty Laser Printer	Product Type: Laser printers Family Brand: LaserJet Perfect For: Business Functions: Print scan and copy Finished Output Handling: Sheetfeed Envelope Input Capacity: Up to 10 envelopes Output Capacity: Up to 150 sheets Display HP: 2.7" (6.86 cm)"	1	50000/-
27		PCB Milling Machine	Frame Material: Aluminum Power Supply: DC 24V 5.6A Laser Module: 500mW Working Area: Approx. 160x100x40mm Control Software: GRBL"	1	61000/-
28		Smart Board	"Product: Interactive flat panel Size: 65" 75" 85" 98" Android : 11.0 Space: 4+32GB Brightness: 450 NITS Touch Points: 20 Screen: Anti-Glare Speakers: 2*20 Watts Technology: 4K"	1	120000/- (Base Price)
29		Computer Workstation in Networking	Operating System: Windows 10 Pro Ram Memory Installed Size: 64 GB Series: Z840 CPU Model: Intel Xeon CPU Manufacturer: Intel CPU Speed: 2.4 GHz RAM Memory Technology: DDR4 Graphics Ram Size: 4 GB Graphics Coprocessor: Quadro K5000"	1	200000/-



List of Equipment

Mandatory Consumables of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		Vacuum Cleaner	Power: 1000W Voltage: 220V-240V Cooling Mode: Recycle Vaccum: 1800mm H2O Function: Wet/Dry Length of Cable: 7.2m	1	20000/-
2		Hot Air Gun -5 Nos.	1800 W Dual Temperature Heat Gun	5	10000/-
3		Digital Vernier Calliper	150 mm / 6" Digital Vernier Calliper	2	6000/-
4		Fire Extinguisher	Powder Type Fire Extinguisher 2KG	1	4000/-
5		First Aid Box	Standard Medical First Aid kit in portable container.	1	1000/-
6		Digital Multimeter (5 units)	AC voltage 200 V - 750 V DC current 200 μ A - 10 A Resistance 200 -2 M Ohm and Transistor & diode test.	1	500/-


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Mandatory Consumables of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
7		Clothes Iron	"Quick Performance Heavy-weight Body American Heritage Soleplate Indicator Lamp 360-degree Swivel Cord Temperature Control Safety Feature"	5	2000/-
8		Electronic Component Repository (LCR Meter, Vanac etc)	Digital Multi Meter Voltage Current voltage 200mV to 1kV AC voltage 200 V - 750 V DC current 200 µA - 10 A Resistance 200 -2 M Ohm and Transistor & diode test.	2	10000/-
9		3D Printer Filament	Compatible 1000 Grams Filament in 5 different colours	2	900/-
10		Acrylic Sheets	2mm,3mm, 4mm, 5mm All of area 8ft x 4ft	4 Set	3000/-
11		Foam Sheets	8mm, 10mm, 12mm, 15mm All of area 8ft x 4 ft	4 Set	4000/-
12		Ply Boards	8mm, 12 mm, 18mm, All of area 8ft x 4ft	3 Set	4800/-




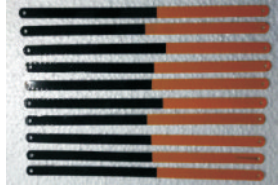



List of Equipment

Mandatory Consumables of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
13		Nylon Rods	12mm, 15mm, 18mm, 25mm All of length 1 m	4 Set	1000/-
14		Nuts	3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm	7 Set	420/-
15		Bolts	Dia (3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm) length (1", 1.5", 2", 2.5")	5 Set	420/-
16		Screws	3mm, 4mm, 5mm	3 Set	250/-
17		Washers	3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm	7 Set	250/-
18		Studs	6mm, 8mm, Length 1m	2 Set	1200/-
19		Nails	1", 2", 3"	3 Set	300/-
20		Adhesives	M-Seal, Feviquick, Fevi Bond	3	500/-







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Mandatory Consumables of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
21		2Way Tapes	20 rolls	20	250/-
22		PVC Pipes	.75", 1", 1.5", 2.5", 3" Length 10ft	5	600/-
23		Aluminum Channels	L, C, Box, Strip Length 12ft	4	8000/-
24		PCB Drill Bits	0.5mm, 0.8mm, 1mm	3	1000/-
25		Drill Bits	3mm, 4mm, 5mm, 6mm,	3	2000/-
26		Drill Bits	8mm, 10mm, 12mm	3	1000/-
27		Carpentry Boring Bits	Entire Kit	1	1000/-
28		Electronic Active and Passive componets	Resistors, Capacitors, diodes and transistors	1	500/-


List of Equipment

Mandatory Consumables of Annexure I					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
29		USB Cables	For connecting Arduino and other development boards	10	150/-
30		Radium Cutter Knives	Material: Alloy Steel Colour: Multicolour Item Dimension: 144 x 22 x 10.5 Hand Material: Plastic Blade Material: Alloy Steel Item Weight: 15 Grams Style: Modern	10	300/-
31		Glue Sticks	Suitable for DIY and craft work Size: 11 mm X 150 mm Transperent	50	22/-
32		Hack Saw Blades	Number of Teeth: 32 Item Weight: 200 Grams Number of Pieces: 106"" and 12	2 set	50/-
33		9V Battery Snaps	Made of soft leather, T fonts.The length of line is about 6cmIt is an environmental 9V battery buckle These connectors snap use for the standard 9 volt battery	20	10/-
34		LAN Cables	For connecting Raspberri Pi	5	150/-
35		9V Batteries	Battery Cell Composition: Alkaline Recommended Uses For Product: Camera, Clocks, Toys Voltage: 9 Volts Reusability: Single Use Item Dimension: 13.5 x 9.3 x 1.7 Cms	20	20/-

List of Equipment

General & Mechanical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		Hacksaw	"Material: Metal Colour: Blue Package Contents: Hacksaw frame Compact, resistant, and light Frame in tubular steel"	5	756/-
2		Micro Chisel Set	Set of 7 sharply honed miniature chisels for carving and shaping precise Made of surgical quality mirror finish stainless steel Has 6 inch long grooved octagonal handles for sure grip Includes convenient storage	3	1150/-
3		Pliers	Overall length: 150mm Material: Forged Steel Plier Type: Plier Set	3 Set	2160/-
4		Manual PCB Drilling Machine	Pcb drill + 10 drill bits of 0.8mm Portable device Easy to drill holes	3	350/-
5		PCB Power Drilling Machine	Power Source: Corded Electric Colour: Black Included Components: Drill Bits Speed: 30000 RPM Item Weight: Item Weight"	3	925/-
6		Cordless Drilling Machines	Type of Product: Cordless Drill/Driver Model No: GSR 120-LI Battery Capacity: 12 V , 1.5 Ah Affordable Durable High Performance	2	7695/-
7		Jigsaw Machiners	"Electric Jigsaw 450W, 3,100 spm, 65 mm, Adjustable Stroke Rate, Double Insulation, Variable Speed, Speed Selection, Lightweight"	2	5000/-
8		Power Circular Saw	"Voltage: 220v; Speed: 12.000rpm Rated power input: 1,250 W; Disc diameter: 125 mm Operating mode: dry Blade as shown in image not a part of product	2	6345/-

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General & Mechanical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
9		Files Set	file set Working length - 6 inch	2 Sets	880/-
10		File handles	"Material: Wood Colour: Brown, Silver Exterior Finish: Wood Finish Type: Matte Handle Material: Wood"	1 Set	270/-
11		Needle Files	"Used on deburring To cut half-round grooves Ideal for wood, metal, plastic, professional and frequent DIY use"	2 Sets	445/-
12		Pipe Vice	"Material: Malleable Iron Colour: Silver, Blue Style: Bench Type"	2	2500/-
13		Mini HackSaw	Size: 6 inches	5	315/-
14		Ball Peen Hammer	Ball Pein Hammer	5	400/-
15		Steel Shaft Claw hammer	Claw Hammer Steel Shaft Weight - 0.75kg	5	500/-
16		Nylon Mallet	Head Material: Carbon Steel Handle Material: Rubber Colour: Multicolour Item Dimensions LxWxH: 28 x 11 x 3 Cms Item Weight: 410 Grams"	5	350/-

List of Equipment

General & Mechanical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
17		Rubber Mallet	Head Material: Rubber Handle Material: Wood Handle,Rubber,Steel Colour: Multicolour Item Dimensions LxWxH: 33 x 11 x 6.5 Cms	5	390/-
18		Allen Key Set	10 Piece Ring Imperial Allen Hex key	3 Set	270/-
19		Dremel Muti tool kit	Brand: Dremel Multitool Type: Rotary ToolCorded/Cordless: Corded Plug Type: Type G - British 3-pin Model Number: 3000 Speed: 10000 " 33000rpm Voltage Rating: 230V Wattage: 130W	2	21000/-
20		Double ended spanner sets	12-piece combination Spanner Set Range - 4 mm to 30 mm	2 Set	2000/-
21		12 Piece Open ended Spanner Set	Brand Name: STANLEY Finishing: Matte Finish Pcs per Set: 12 Pcs. Sided: Double Material: Chrome Vanadium Steel	2 Set	1000/-
22		Belt and Disc Sanding Machine	Material: Chrome Vanadium Steel Multifunctional and handy Easy to use Adjustable and multifunctional workbench Table Size: 190x125mm The powerful 375w 230v induction motor and cast iron base and rubber	1	15990/-
23		Scroll Saw Machine	No Load Speed: 1450 rpm Voltage: 220V Frequency: 50Hz Type of Product: Scroll Saw Machine Model No: SS852 Cutting Depth: 50 mm Motor: Induction Table Size: 375 x 250 mm Power Source: Electric Cord"	1	9990/-
24		Tool Wall covering Periorator	Item Dimensions: 22.9 x 14.6 x 1 Centimeters Item Weight: 1 Pounds Wallpaper roller Adds Extra shine to your product"	3	10800/-

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General & Mechanical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
25		Dremel Moto Saw	Manufacturer: Dremel Item model number: 231ASIN: B0000302Y9 Manufacturer: Dremel Item Weight: 975 g	1	30780/-
26		Bench Grinding Machine	"Material: Plastic, Metal Item Dimensions LxWxH: 19.5 x 15 x 21.5 Centimeters Style: Modern Power Source: Corded Electric Colour: Blue Item Weight: 4200 Grams Wattage: 350 Watts"	1	15390/-
27		Power Return Measuring Tape	Return measuring tape 5Mx19MM	5	300/-
28		Tri Square 8"	Range 0-8" This square is made out of steel stock and hardened blade All faces are precision ground.	5	425/-
29		Stainless Steel Rule	Stainless Steel 12" / 150 mm Rule	5	50/-
30		Digital Vernier Caliper	150 mm / 6" Digital Vernier Calliper	5	1000/-
31		12" Spirit Level	12" Spirit Level	5	420/-
32		Power Router	Powerful 550W motor and a higher rpm provides fast trimming and quality work	8	1000/-









List of Equipment

General & Mechanical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
33		Sewing Machine	Semi-Automatic Sewing machine Straight stitch Consumables - 2 set of assorted needles and 10-colour spool set.	1	13500/-
34		Impact Drill	Drill Machine with accessories Hammer/Screw and clockwise/anticlockwise modes. Power: 500W Chuck capacity - 1 to 10mm Drill Bits - Masonry, Metal, Wood	3	3000/-
35		Ratchet Set	Item Dimensions LxWxH: 45 x 19 x 6.5 Cms Size: Standard Material: Other Drive System: Square"	2	2950/-
36		Router Bit Starter Kit	Material: 45 # carbon steel, YG8 alloy Packing: wooden box Shank Diameter: 1/4"" : 6.35mm/ 0.25 inch Wood Box Size: 1/4": 163 x 133 x 50mm (L*W*H) Pieces: 15pcs	1	1850/-
37		Scroll Saw	"Brand Name: Ingco No Load Speed: 1450 rpm Voltage: 220V Frequency: 50 Hz Type of Product: Scroll Saw Machine"	1	9990/-
38		Dremel Cordless Rotary Tool	"Brand: Dremel Voltage: 12 Volts Power Source: Battery Powered Item Weight: 1.6 Pounds Number of Batteries: 1 Lithium Ion batteries required"	1	21465/-

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Electrical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		Hot Air Blower With Soldering Iron	Variable Wattage of Soldering Iron: 15-30 watts/230 volts De-Soldering Pump, Soldering Flux (Paste) 100 grams, DE-soldering Wick 1.5m* 2mm Soldering Wire: 20/22 AWG soldering Wire with rosin core flux (100 Grams)	5	10000/-
2		Tin Cutter with Spring	Item name: Tin Cutters with Spring Color: Blue and Silver Brand: Taparia	10	400/-
3		Centrifugal Blower	500 W or more. Variable speed blower	1	2350/-
4		Screwdriver Sets	6 Pieces Precision Screw Driver Set	2	300/-
5		Cutting Mats	A3 Size with Marked Pattern and Grids (18" X 12")	5	700/-
6		Vacuum Cleaner	Power: 1000W Voltage: 220V-240V Cooling Mode: Recycle Vacuum: 1800mm H2O Function: Wet/Dry Length of Cable: 7.2m	2	20000/-
7		Hot Air Gun	Colour: Orange and Black Style: Trigger Weight: 1.73 Pounds Item Dimensions LxWxH: 20 x 10 x 30 Cms Power Source: Corded Electric Wattage: 1800 Voltage: 230	5	1500/-
8		Micrometer	Resolution: 0.001 mm/0.00005 inch Button Function: On/off, set, mm/inch, ABS/INC No data output LR44 battery with automatic power off Carbide measuring faces, friction thimble, supplied with spherical anvil"	5	5000/-

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Electrical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
9		Glue Gun	Works with standard 0.5-inch glue sticks. Temperature - 230 to 280°C	5	200/-
10		Air Compressor	Product Type: Air Compressor Metal: Cast Iron Motor: Copper Coil Motor Cylinder: Single Motor Type: Single Phase AC Power: 2 HP Voltage: 220V Air Delivery (CFM): 130L/min Pressure: (8 bar)"	1	21000/-
11		Allen Set Wrench	Adjustable Universal Wrench	5	500/-
12		Tongue and Groove Pliers	Item Dimensions LxWxH: 31.8 x 9.9 x 1.9 CC Colour: Multicolour Handle Material: Plastic Item Weight: 0.94 Pounds Specific Uses For Product: Teeth	5	5000/-
13		Non-contact voltage tester	High-quality ac voltage detector Product: AC voltage detector Dual sensitivity range wire tester Voltage: 12v-1000v/48v-1000v Working temperature: 0°C~40°C Operating Voltage: 3V DC (2 x AAA Battery not included)	5	675/-
14		Wire Stripper	Wire Stripper Cutter Plier With Spring -26x6x20 cm	5	270/-
15		Fish Tape	Colour: Orange, Black Item Weight: 1.1 Pounds Blade Material: Alloy Steel Blade Length: 25 Feet Case Material Type: Polypropylene	2	5800/-
16		Flashlights	Voltage: 1.5 Volts Weight: 50 Grams Number of Batteries: 3AAA Batteries Required Colour: Multicolour	2	3000/-



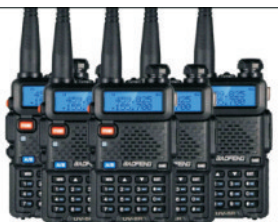

List of Equipment

Electrical Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
17		DC Regulated Power Supply	Matrix DC Power Supply Variable (0-32V 0-6A) Adjustable Switching Regulated Bench Lab Power Supply 5-Storage MPS-3206 4 Digits Display OVP OCP 110V/220V	3	10000/-
18		Solder Wick	Correct mistakes with small boards on PCBs Remove relays and other components from printed circuit boards Re-solder mechanical keyboard switches Unsoldering old wire from devices	10	600/-
19		Filament Dehydrator	Compatible with a wide variety of materials suitable for filaments with an outer diameter of up to 200 mm and a maximum width of 75 mm. Easy handling	1	5000/-
20		Reflow Oven	Drawer area* (mm): 180 x 235 Product dimensions (mm): 310 x 290 x 170 Supply AC220V: 50~60HZ Net weight: 7kg Power rating: 800W Power density: 1.891 W/cm ² Software: Reflow Viewer USB Connection: Yes	1	44000/-
21		Glass Cutter	Glass cutter capable of cutting thick glass (up to 15 mm thickness) Tungsten carbide wheel for deep, accurate cut Rotating head for smooth, intricate cuts Black rubber grip that prevents slipping and enables firm grip	1	700/-
22		Gypsum (10kg)	Item Weight: 10 Kilograms Item Form: Powder Liquid Volume: 10 Litres Specific Product Use: Agriculture, Soil Conditioner	1	1000/-
23		Digital Multimeter	AC voltage 200 V - 750 V DC current 200 μ A - 10 A Resistance 200 - 2 M Ohm and Transistor & diode test.	5	550/-
24		Clothes Iron	Quick Performance Heavy-weight Body American Heritage Soleplate Indicator Lamp 360-degree Swivel Cord Temperature Control Safety Feature	5	2000/-
25		Oscilloscope	Minimum Bandwidth: 50 Mhz. Minimum number of channels: 2. Sample Rate: 1Gsa/s With inbuilt waveform function generator.	4	2800/-

List of Equipment

Networking Tools of Annexure II					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		C-Clamp	Metal Clamp: 3-inch size	10	500/-
2		Ratchet clamp 8 inches/ 200mm	200mm (8") Heavy Duty Quick Grip Clamps Bar Ratchet Clamp/Spreader One Handed F Clamps Quick Grip and Release Ratchet Bar Clamps"	10	5000/-
3		Baby Vice 60 mm	MATERIAL: CAST IRON JAW OPENING - 60 MM Weight - 1.9 Kg, Integrated clamping capacity- 30 mm APPLICATIONS- JEWELRY, MOBILE PARTS, WATCHES, HOBBY, WORK-BENCH AND OTHER DOMESTIC/INDUSTRIAL APPLICATIONS"	5	1400/-
4		Bench vices	Table top vice	5	1700/-
5		Anvil	Anvil Tools Flat Surface Hardened And Tempered Surface Cast Iron Anvil Cast Iron Hand Plane	1	1000/-

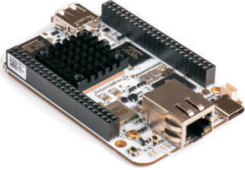
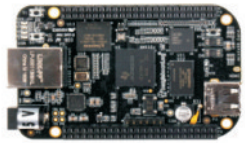



List of Equipment

Additional Equipments of Annexure III					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		Coil Winding M/c motorized	"Automation Grade: Automatic Design: Standard Usage: to wind wide range of coils Winding turns: 0.1 - 99999.9 Winding speed: 200-9000RPM"	1	1 Lakhs
2		Plotter -Printer	A1 Colour Large Format Printer Perfect for Home, Small Offices Print only 30 sec/page on A1; 76 A1 prints per hour USB; Ethernet; Wi-Fi Dynamic Security enabled printer"	1	1 Lakhs
3		HAM Radio transceiver, antenna and related equipment	"Colour: Black Number of Channels: 128 Tuner Technology: UHF Water Resistance Level: Water Resistant Item Dimensions LxWxH: 12 x 8 x 18 Cms International Protection Rating: IP67"	1	50000/-
4		Relevant Software (Academic Licenses)	Autocad Autodesk etc.	1	4 Lakhs Yearly

List of Equipment

Additional Consumables of Annexure III					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
1		Sensor set	Sensor set including sensors for Home/ Industry/Agriculture Automation, Medical diagnosis	1	2500/-
2		Arduino UNO boards Sets	Arduino UNO boards (10 sets including USB A to B cable+ male -male connecting wires+ female to female connecting wires+ male -female connecting wires)	10 Sets	5000/-
3		NodeMCU (ESP8266) boards sets	NodeMCU (ESP8266) boards (10 sets including USB A to B cable+ male -male connecting wires+ female to female connecting wires+ male -female connecting wires)	10 Sets	1500/-
4		Raspberry Pi 4 boards	Raspberry Pi 4 boards (05 sets including HDMI - mini HDMI connector, Memory card of 8 GB, adaptor, casing)	5	20000/-

List of Equipment

Additional Consumables of Annexure III					
S. No.	Equipment Image	Name of Equipment	Description	Suggested Quantity	Basic Rate
5		Beagle Bone AI	BeagleBone AI for Artificial Intelligence based applications (5 sets)	5 Sets	30000/-
6		Beagle Bone -Black- Wireless	"TI Sitara AM3358AZCZ100, 1GHz, 2000 MIPS1 GHz ARM®Cortex™ - A8SGX530 Graphics EngineProgrammable Real-Time Unit Subsystem"	5 Sets	10000/-
7		Peripheral sets for Arduino/ NodeMCU/ Raspberry Pi	Peripheral sets for Arduino/ NodeMCU/ Raspberry Pi (10 sets)	10 Sets	6000/-
8		ESP32 CAM Development Board WiFi + Bluetooth with OV2640 Camera Module	ESP32 CAM Development Board WiFi + Bluetooth with OV2640 Camera Module (5 sets)	5 Sets	2000/-
9		Solnoi Electronics Raspberry Pi 3 Camera Module Night Vision Camera	Solnoi Electronics Raspberry Pi 3 Camera Module Night Vision Camera (5 sets)	5 Sets	2000/-

*GST Extra on Rates

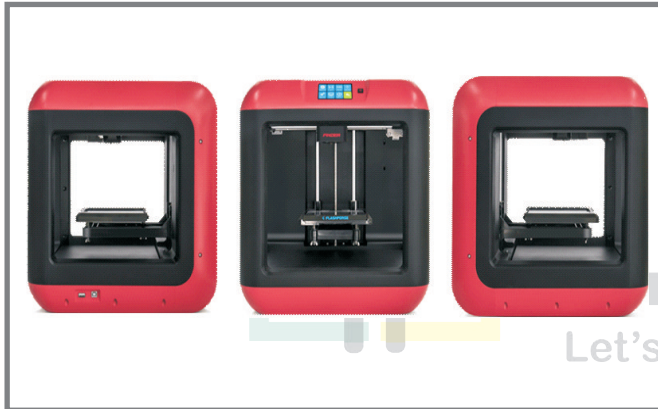
*Images shown are just for illustration purpose, actual product may be different according to your price

3D Printer

Creality3D Ender 3 Pro

Technical Specifications

- Printing Technology: FDM (Fused Deposition Modeling)
- Build Volume: 140mm(L)×140(W) ×140mm(H)
- Extruder Quantity: sin
- Nozzle Diameter: ϕ 1.75/0.4mm
- Supported Materials: ABS, TPU, PLA, HIPS, etc.
- Software Input Formats: .STL, .OBJ, JPG, PNG
- Display:3.2inch LCD display
- Connectivity: SD Card; USB Cable



Flashforge Finder 3D Printer

Technical Specifications

- Printing Technology: FDM (Fused Deposition Modeling)
- Build Volume: 140mm(L)×140(W) ×140mm(H)
- Extruder Quantity: sin
- Nozzle Diameter: ϕ 1.75/0.4mm
- Supported Materials: ABS, TPU, PLA, HIPS, etc.
- Software Input Formats: .STL, .OBJ, JPG, PNG
- Display: 3.2inch Touch Screen
- Connectivity: SD Card; USB Cable

Flashforge Adventure 4

Technical Specifications

- Extruder Quantity: 1Nozzle
- Diameter: 0.4mm, 0.6/0.3mm Max Extruder
- Temperature: 265 \square
- Filament Compatibility: PLA, ABS, PC, PETG, PLA-CFPrint
- Volume: 220*200*250mm
- Laye Thickness: 0.1mm-0.4mm
- Screen: 4.3-inch touch screen
- Internal Storage: 8G
- Camera: 1
- Software: FlashPrint/Cura/Slic3r

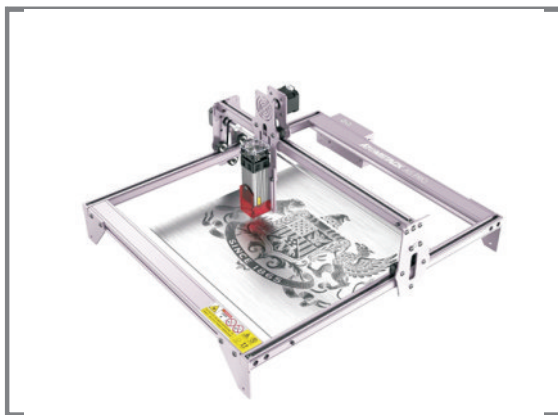


Laser Cutter

JIATAI LASER CUTTER JTS-1490-100 w

Technical Specifications

- Wavelength: 10.6um
- Laser Type: JT Sealed CO2 Laser Tube with Italian metal reflector
- Laser Power: 60W/80W
- Engraving Area: 600*400mm, 600*900mm, 1400*900mm
- Cooling system: Water Cooling System
- Power Supply: 220V+-10%/50Hz
- Graphic File Support: PLT,CDR,DXF,BMP,JPEG, etc.
- Application Material: acrylic, Painted Metal, wpc, Soft wood, Paper, Cardboard, Cloth, Leather, Plastic, Rubber, Ceramic, MDF, Denim, Glass, Marble, ABS Sheet
- Work Table: Honey CombTable/ Strife Knife Table
- Machine Dimension: 1400*900MM
- Price: 6Lakhs



Atomstack A5 40W Laser Engraver (A5 Pro)

Technical Specifications

- Atomstack A5 40W Laser Engraver (A5 Pro)
- Upgraded Ultra-fine 0.23mm*0.23mm Laser Focal Area
- New eye protection design
- 410x400mm Large Carving Area
- Upgraded High-quality Laser
- Full-metal Structure
- Quick Assembly Design
- Precise Scale Lines
- Material:-Basswood, Hardwood, Bamboo, Acrylic, Kraft paper, Mirrors, Stainless steel aluminum / alloy.
- It features fixed-focus laser head
- Unique eye-protective enclosure
- Scale lines on both the X-axis and Y-axis
- Intelligent security auto-protection system
- Price: 60000

Proposal for Faculty Development Program in IDEA Lab

As the IDEA Lab continues to evolve and grow, it is essential to ensure that faculty members are equipped with the necessary skills, knowledge, and expertise to effectively lead and support innovation, design, and entrepreneurship initiatives in the lab. A comprehensive Faculty Development Program can provide faculty members with the training and resources needed to excel in their roles and contribute to the success of the IDEA Lab. The following strategy outlines the key components of a Faculty Development Program for the IDEA Lab:

Training Workshops: Conducting regular training workshops for faculty members to enhance their knowledge and skills in areas such as innovation methodologies, design thinking, prototyping techniques, business development, market research, and other relevant topics. These workshops can be conducted by internal or external experts, and can be customized based on the specific needs and interests of the faculty members.



Hands-on Experience: Providing faculty members with hands-on experience in utilizing the equipment and tools available in the IDEA Lab. This may include workshops or training sessions on how to effectively operate and maintain the lab's equipment, conduct prototyping and testing, and integrate innovation and design principles into curriculum and projects.

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Collaboration Opportunities: Encouraging faculty members to collaborate with each other and with students on innovation projects and initiatives within the IDEA Lab. This can provide opportunities for interdisciplinary collaboration, fostering a culture of creativity and collaboration among faculty members and students.



Guest Speakers and Industry Experts: Inviting guest speakers and industry experts to share their insights, experiences, and best practices in innovation, design, and entrepreneurship. These sessions can provide faculty members with real-world perspectives and practical knowledge, and can also facilitate networking and professional development opportunities.

Proposal for Faculty Development Program in IDEA Lab

Peer Learning and Mentoring: Creating opportunities for faculty members to learn from each other through peer learning and mentoring programs. This can include peer review sessions, case studies, and collaborative problem-solving activities, allowing faculty members to learn from each other's expertise and experiences.



Resource Library: Establishing a resource library with relevant books, journals, articles, and online resources on innovation, design, and entrepreneurship. This can serve as a repository of knowledge that faculty members can access for self-directed learning and professional development.

Evaluation and Feedback: Implementing an evaluation and feedback mechanism to assess the effectiveness of the Faculty Development Program and gather input from faculty members on their needs and preferences for future training sessions. This feedback can be used to continuously improve the program and ensure its relevance and effectiveness.



Budget: The budget for the Faculty Development Program may include costs associated with conducting training workshops, inviting guest speakers and industry experts, creating and maintaining a resource library, and implementing evaluation and feedback mechanisms. The budget can be allocated based on the specific requirements and priorities of the IDEA Lab and the availability of resources.

A robust Faculty Development Program can provide faculty members with the skills, knowledge, and resources needed to effectively contribute to the success of the IDEA Lab. By enhancing faculty members' expertise in innovation, design, and entrepreneurship, the program can help create a supportive environment for students, foster a culture of creativity and collaboration, and ensure the continued growth and success of the IDEA Lab as a center for innovation and entrepreneurship in the college community.

Proposal for Skilling Program for students in IDEA Lab

IDEA Lab is a hub for innovation, design, and entrepreneurship within your college community. As part of our commitment to fostering a culture of creativity, collaboration, and innovation, we propose the implementation of a skilling program in the IDEA Lab. The skilling program aims to provide students with the necessary skills and competencies to effectively ideate, prototype, and develop innovative solutions to real-world problems. The following strategy outlines the key components of the skilling program in the IDEA Lab:



Curriculum Development: Developing a comprehensive curriculum that includes relevant topics such as design thinking, innovation methodologies, prototyping techniques, business development, market research, and other essential skills for innovation and entrepreneurship. The curriculum can be designed to cater to different levels of expertise, from beginner to advanced, and can be integrated into existing courses or offered as standalone modules.

Training Workshops: Conducting hands-on training workshops for students to acquire practical skills and knowledge in innovation and design. These workshops can be facilitated by internal or external experts, and can cover a wide range of topics, including problem identification, idea generation, prototyping, testing, and iteration. The workshops can be conducted in the IDEA Lab or other designated spaces, and can be tailored to the specific needs and interests of the students.



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Project-Based Learning: Emphasizing project-based learning as a core component of the skilling program. Students can work on real-world projects or challenges, individually or in teams, to apply the skills and concepts learned in the curriculum and workshops. This can provide students with valuable hands-on experience in solving real-world problems, developing innovative solutions, and collaborating with peers.

Mentoring and Coaching: Providing students with mentoring and coaching support to guide them through the skilling program. Mentors can be faculty members, industry experts, or experienced professionals who can provide guidance, feedback, and advice to students as they work on their projects. This can help students develop critical thinking, problem-solving, and communication skills, and receive valuable insights and feedback on their projects.



Proposal for Skilling Program for students in IDEA Lab

Access to Resources and Tools: Ensuring that students have access to the necessary resources and tools in the IDEA Lab to support their skilling program. This may include access to prototyping equipment, software, materials, and other resources needed for their projects. Providing students with easy access to these resources can facilitate their learning and enable them to effectively prototype and develop their innovative ideas.



Evaluation and Recognition: Implementing an evaluation and recognition system to assess the progress and achievements of students in the skilling program. This can include assessments, presentations, and demonstrations of their projects, and recognition of their achievements through certificates, awards, or other forms of recognition. This can motivate students to actively participate in the skilling program and showcase their skills and accomplishments.

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Alumni Engagement: Engaging alumni who are successful entrepreneurs, innovators, or professionals in relevant fields, to share their experiences, insights, and best practices with students. Alumni can serve as role models, mentors, and resources for students, and can provide valuable guidance and inspiration as they progress through the skilling program.



Budget: The budget for the skilling program may include costs associated with curriculum development, training workshops, mentoring and coaching, access to resources and tools, evaluation and recognition, and alumni engagement. The budget can be allocated based on the specific requirements and priorities of the IDEA Lab and the availability of resources. Funding sources may include college funds, sponsorships, grants, or other external sources of funding.



AICTE
IDEALab



LBD Robotics Pvt. Ltd.

G-268, Ground Floor, Sector - 63 Noida
Uttar Pradesh - 201305

Mob.: +91-8010317088, 9560119799