



## LIST OF EQUIPMENT AND ITEM DETAILS FOR SETUP AICTE IDEA LAB

| Sr. No | Equipment's                           | Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Qty |
|--------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1      | Dual Nozzle Multi Material 3D printer | <p>           Dual-nozzle multi-material 3D Printing<br/>           Optional 10W/40W Laser and Cutting Module<br/>           350*320*325 mm<sup>3</sup> Print Volume single &amp; dual<br/>           5µm Resolution Optical Motion Calibration<br/>           Closed-loop Servo Extruder<br/>           350°C Nozzle &amp; 65°C Active Chamber Heating<br/>           Voltage Range: 100-120 V<br/>           Body Build Volume (W*D*H)<br/>           Total Volume for Two Nozzles: 350*320*325 mm<sup>3</sup><br/>           Chassis &amp; Shell Aluminum, Steel, Plastic and Glass Laser Safety Windows<br/>           Air Assist Pump,<br/>           Tool head Hotend All Metal Extruder Gear<br/>           Hardened Steel Nozzle<br/>           Max Nozzle Temperature 350 °C<br/>           Included Nozzle Diameter 0.4 mm<br/>           Supported Nozzle Diameter 0.2 mm, 0.4 mm, 0.6 mm, 0.8 mm<br/>           Filament Diameter 1.75 mm<br/>           Extruder Motor, Permanent Magnet Synchronous Motor<br/>           Heat bed Supported Build Plate Type<br/>           Textured PEI Plate, Smooth PEI Plate<br/>           Max Heat bed Temperature 120 °C<br/>           Speed Max Speed of Toolhead 1000 mm/s<br/>           Max Acceleration of Toolhead 20,000 mm/s<sup>2</sup><br/>           Max Flow for Hotend (Standard Flow Hotend)<br/>           40 mm<sup>3</sup>/s (Test parameters: 250 mm round model with a single outer wall;<br/>           Max Flow for Hotend (Optional High Flow Hotend)<br/>           65 mm<sup>3</sup>/s (Test parameters: 250 mm round model with a single outer wall;<br/>           Bambu Lab ABS; 280 °C printing temperature)<br/>           Chamber Temperature Control<br/>           Active Chamber Heating Supported<br/>           Max Temperature 65 °C<br/>           Air Purification Pre-filter Grade G3<br/>           HEPA Filter Grade<br/>           Activated Carbon Filter Type<br/>           Granulated Coconut Shell<br/>           Cooling Part Cooling Fan<br/>           Supported Filament Type<br/>           PLA, PETG, TPU, PVA, BVOH, ABS, ASA, PC, PA, PET, Carbon/Glass Fiber<br/>           Reinforced PLA, PETG, PA, PET, PC, ABS, ASA, PPA-CF/GF, PPS, PPS-CF/GF<br/>           Supported Sensor<br/>           Live View Camera Built-in; 1920*1080<br/>           Nozzle Camera Built-in; 1920*1080 Birds Eye Camera<br/>           Tool head Camera<br/>           Built-in; 1920*1080<br/>           Door Sensor Supported<br/>           Filament Run Out Sensor Supported<br/>           Filament Tangle Sensor Supported<br/>           Filament Odometry Supported with AMS<br/>           Power Loss Recovery Supported<br/>           Electrical Requirements<br/>           Voltage 200-240 VAC, 50/60 Hz<br/>           Max Power* 2200 W@220 V         </p> | 1   |



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| Sr. No | Equipment's               | Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Qty |
|--------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 2      | CO2 Laser Cutting Machine | <p>Working Area: Min1300x900mm<br/>           Laser Type: CO2 DC Glass Laser Tube/RF Metal Laser Tube<br/>           Laser Power: 100W<br/>           Wave Length: Upto 10.6 Micrometer<br/>           Speed: 500 mm / second<br/>           Cutting Speed: 200 mm / second<br/>           XY Axis: LM Guide Rail or equivalent Cooling: Air/Water Cooling<br/>           Supply Voltage: 230V/415V<br/>           Accuracy 0.02 mm<br/>           Accessories: CO2 Focus Lens: 1 No. Mirror 25mm : 3Nos.<br/>           Acetone: 1 litre Acrylic sheet: 2Nos<br/>           Usage/Application Non-Metal such as Acrylic, Soft wood, Paper, Cardboard, Cloth, Leather, Plastic, Rubber, Ceramic</p>                                                                                                                                                                                                                           | 1   |
| 3      | CNC Router                | <p>Working Area: Min1300x2500mm * 250 mm (Z Axis Working Area)<br/>           : 200 or above Resolution:<br/>           CNC Spindle: 3.5KW<br/>           Lathe Structure : Welding Steel Structure or equivalent<br/>           XYZ Structure : Rack Pinion, Ball Screw Linear Rails<br/>           Cooling System Industrial Water Pump<br/>           Max Rapid 32 Meter/ Min<br/>           Spindle Power 4.5 kW<br/>           Spindle Speed 0-24000rpm<br/>           Table: T-Slot/Vacuum Bed/Water Bed Repeatability: <math>\pm 0.03</math><br/>           Lathe structure Welding – steel structure<br/>           Working Mode: Stepper Motor/Servo<br/>           Motor Dust Collector : To be included by Vendor<br/>           Voltage : AC220V/415V, 50/60Hz, 3Phase<br/>           Application Material Cardboard, Acrylic, Saag, MDF, Veneer, PVC, Soft Wood, Foam, Plywood, ACP, Marble, Zinc, Lad, Wood</p> | 1   |
| 4      | Bench Top Drill Machine   | <p>Continuous rating input: Max.1HP<br/>           Motor Capacity: Motor 3 Phase induction A.C. 0.55 KW / 1 HP<br/>           Steel: Min13 mm (1/2") Wood : Min 24mm (15/16")<br/>           No Load Speed (RPM): 1400 rpm Maximum distance Chuck to Table 340 mm,<br/>           Spindle Travel 130 mm<br/>           Additional Accessories: Bench Vise: 1No., Drill Bit Set 10<br/>           Pcs: 1 No Drilling<br/>           Capacity (Steel): 20MM No. of Spindle Speed 86-154-260-460-617-1100-1880-3360</p>                                                                                                                                                                                                                                                                                                                                                                                                          | 1   |
| 5      | Portable Welding Machine  | <p>Welding Current (at 40°C, 10min cycle) : 120A @100%, 150A @60%, 200A @35%<br/>           Supply Voltage: 240V+10%,-15%, 1Phase, 50/60Hz<br/>           Open Circuit Voltage : 55VDC <math>\pm 5V</math> Welding Current Range : 15–200Amps DC<br/>           Insulation Class: F Type<br/>           Ingress Protection : IP21<br/>           Dimensions (L×W×H) with Handle : upto 320×120×195mm<br/>           Weight (Approx.): 4.3 kg or less</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1   |



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|--------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 6      | PCB Milling Machine       | Model: PCBMATE 300W<br>PCB Cabinet<br>Desktop, CPU, Mouse and Keyboard<br>Eureka Forbes Vaccum Cleaner<br>Single Side Copper Clad - 10 No's<br>Double Side Copper Clad - 10 No's<br>Drill Bits - 10 No's<br>Engrave Bits - 10 No's<br>Spring Collecting Chuck Tool Bit Holder<br>PCB Washing Tub - 1 No<br>Machine Operating and G-Code Conversion Software<br>Digital Microscope Endoscope Camera - 1<br>G-Code Converting Software - Copper CAM (1 user)<br>Machine Operating Software - MACH3 Mill (1 user)<br>Surface Levelling Software - Auto Leveler (1 user)<br>Multipurpose Working Table<br>Solder Masking<br>PTH Masking<br>UV Exposure | 1   |
| 7      | Vinyl Cutter              | MODEL: JK 721<br>Specifications:<br>Max. Plotter Width: 630 mm (JK 721)<br>CPU: Windows 7 (32-bit)<br>Drive Motor: Stepping Motor<br>Max. Plotter Speed: 800 mm/s<br>Cutting Force: 50-500 g<br>Mechanical Resolution: 0.0254 mm/step<br>Blade Type: Super Steel (1.2 mm and 2.0 mm)<br>Display Panel: 8-digit x 2-line LCD<br>Interface: USB Port, Serial Port<br>Measurement: 960 x 350 x 430 mm<br>Buffer Capacity: 1-4 M<br>Power Requirement: 220 V<br>Stand: Included                                                                                                                                                                        | 1   |
| 8      | Mixed Signal Oscilloscope | Model: SDS 814X-E, SDS-800X-HD-16LA, SLA-1016.<br>Mixed Signal Oscilloscope 100 MHZ 4 Channel 2Gsa/s 12 Bit<br>High resolution 7" Touch<br>screen Display: 100 MHz;4 channels; 2 GSa/s; 50 Mpts<br>memory depth; 500,000 wfm/s waveform capture rate; 7" TFT-LCD with<br>capacitive touch screen (1024*600);<br>SPO technology, 2 Mpts FFT Serial bus triggering and decode<br>(Standard),<br>supports IIC, SPI, UART, RS232, CAN, and LIN: Support MSO, USB AWG Bode<br>Plot: USB WIFI:<br>Optional:<br>SDS800X HD-16LA MSO function (SW)<br>SLA1016<br>MSO function hardware for SDS1000X-E oscilloscope, 16-channel, 500<br>MSa/s, 14 Mpts      | 1   |



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|--------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 9      | Digital Storage Oscilloscope   | Model: SDS 812X-HD<br>Digital Storage Oscilloscope 100MHZ 2<br>Channel 2Gsa/s 12-bit high<br>resolution with 7" inch touch screen display: 100 MHz;2 channels; 2 GSa/s;<br>50 M<br>memory depth; 500,000 wfm/s waveform capture rate; 7" TFT-LCD with<br>capacitive touch screen (1024*600); SPO technology,<br>2 Mpts FFT Serial bus triggering and decode<br>(Standard), supports IIC, SPI, UART, RS232, CAN, and LIN; Support MSO,<br>USB AWG Bode<br>Plot: USB WIFI                                                                                                                                                                                                                                                                    | 1   |
| 10     | Signal Generator               | Model: SDG 1062X<br>Dual Channel Function/Arbitrary Waveform Generator 60MHZ:<br>60MHz; 2 channels; 150MSa/s; wave<br>length: 16Kpts; function/arbitrary<br>waveform output amplitude: 4mV ~ 20Vpp (high impedance); modulation<br>function (AM, DSB-AM, FM, PM, ASK, FSK, PWM, Sweep, Burst);<br>frequency counter function, Easy Pulse technology. Standard interfaces: USB<br>Device, USB Host.                                                                                                                                                                                                                                                                                                                                         | 1   |
| 11     | Mini Desktop Lathe Cum Milling | Model: HQ500<br>Swing Over Bed: 420 Mm<br>Distance Between Center: 500 Mm /800 Mm<br>Max. Longitudinal Travel: 400 Mm/700 Mm<br>Max. Cross Travel: 195 Mm<br>Spindle Hole: 28 Mm<br>Step Of Spindle Speed: 7<br>Range Of Spindle Speed: 160-1360 Rpm<br>Barrel Travel: 70 Mm<br>Metric Thread Range: 0.2-6mm<br>Longitudinal Range Of Automatic Feeding: 0.05-0.35 Mm/0.002-0.014<br>Cross Range Of Automatic Feeding: 0.05-0.35 Mm/0.002-0.014<br>Step Of Spindle Speed: 16<br>Range Of Spindle Speed: 120-300 Rpm<br>Swivel Degree Of Headstock: 360<br>Motor Power: 0.55 Kw                                                                                                                                                             | 1   |
| 12     | Digital Multi meter            | DIGITAL MULTI-METER mains operated<br>DC Voltage 0.1 mV - 1000 V $\pm(0.5\% + 2)$<br>AC Voltage 0.1 mV - 750 V $\pm(0.6\% + 5)$<br>DC Current 0.1 $\mu$ A - 10A $\pm(0.8\% + 3)$<br>AC Current 0.1 $\mu$ A - 10A $\pm(1.0\% + 5)$<br>Resistance 0.1 $\Omega$ - 60 M $\Omega$ $\pm(0.8\% + 5)$<br>Temperature -40 $^{\circ}$ C - 1000 $^{\circ}$ C $\pm(2\% + 5)$<br>Capacitance 0.001 nF - 6 mF $\pm(2.5\% + 5)$<br>Inductance 0.1 $\mu$ H - 100 H $\pm(2.5\% + 5)$<br>Frequency 0.1 Hz - 20 MHz $\pm(0.1\% + 10)$<br>True-RMS Yes<br>Extra functions duty cycle, continuity test, diode test, hFE, thyristor<br>measurement<br>Power AC 100-240V 50Hz<br>Display 6000 counts, 4.5" LCD<br>Refresh rate 3 Hz<br>Connectivity USB interface | 1   |



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|--------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 13     | Digital Clamp Meter | True RMS Clamp Meter<br>Jaw Opening 30mm<br>AC current (A) 600A $\pm(2.5\%+5)$<br>AC current frequency response 40~400Hz<br>DC current (A) 600A $\pm(2.5\%+5)$<br>AC voltage (V) 750V $\pm(1.2\%+5)$<br>AC voltage frequency response 40~400Hz<br>DC voltage (V) 1000V $\pm(0.8\%+1)$<br>Resistance ( $\Omega$ ) 60M $\Omega \pm(1\%+2)$<br>Capacitance (F) 60mF $\pm(4\%+5)$<br>Frequency (Hz) 10Hz~1MHz $\pm(0.1\%+4)$<br>Temperature -40°C~1000°C $\pm(2\%+5)$ , -40°F~1832°F $\pm(2\%+10)$                                                | 1   |
| 14     | DC Power supply     | 60 Volt DC, 5 Amp DC,<br>- Regulation: $\pm 0.05\%$ for no load to full load,<br>- Ripple: Less than 1mV<br>- Power Requirement: 230V AC $\pm 10\%$ .<br>Display Parameters<br>Display Units : 2 separate displays required for Volatage & Current status visualization<br>Display Type: Seven Segment Display                                                                                                                                                                                                                                | 1   |
| 15     | Digital Microscope  | Specification :<br>Magnification: 1600X<br>Light source : 8 LED lights<br>Resolution: 1920×1080,640*480<br>Pixel: 30W<br>Focal length : 3-40mmmanual adjustment Support Android 4.2 or above/widows/Macsystem                                                                                                                                                                                                                                                                                                                                 | 1   |
| 16     | Hand Drill Machine  | Rated Input Power : Approximately 550W or above maximum power consumption.<br>Bit Holder : Standard 1/2"-20UNF thread type.<br>No-Load Speed(1 <sup>st</sup> Gear): Adjustable from 0 upto approximately 3,300 rpm.<br>Power Output: Approximately 300W continuous output power.<br>Weight: Approximately 1.7 kg total device weight.<br>Rated Torque: Approximately 1.4 Nm maximum torque output.<br>Drill Spindle Connecting Thread: Standard 1/2"-20UNF thread.<br>Chuck Capacity(Min/Max): Approximately 1.5 mm minimum to 10mm maximum . | 1   |
| 17     | Cordless Drill      | Voltage: 20V<br>No-load speed: 0-400/0-1500/min<br>Max. torque: 45NM<br>Chuck capacity: 0.8-10mm<br>Torque settings: 15+1<br>Mechanical 2-speed gear<br>20V Lithium-Ion 2.0Ah batteries<br>With 2pcs P20S 2.0Ah battery pack<br>With 1pcs fast intelligent charger<br>Charge volts: 220V-240V~50/60Hz<br>Integrated work light<br>LED battery power indicator                                                                                                                                                                                 | 1   |



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|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 18     | Jig Saw          | Rated Input Power: Approximately 500W maximum power consumption.<br>Voltage, Electrical: Nominal 230V AC supply.<br>Saw Stroke Length : Approximately 20mmstrokelenh.<br>Stroke Rateat No Load: Adjustable within approximately 800 to3,100s pm (strokes per minute).<br>Weight: Approximately 2.08kg total weight.<br>Bevel Angle: Adjustable within approximately -45°to45°range.                                                        | 1   |
| 19     | Hot air gun      | Rated Input Power: Approximately 1,800W maximum power consumption.<br>Voltage, Electrical: Nominal 230V AC supply.<br>Weight: Approximately 0.75kg.<br>Working Temperature Range: Adjustable within approximately 60°C to 550 °C.<br>Heat-Up Time: Approximately 1 second to reach target temperature.<br>Air flow: Adjustable within approximately 350 to 550 liters per minute.<br>Air flow Control: Threes electable air flow settings. | 2   |
| 20     | Bench Grinder    | Grinding wheel diameter: min 150 mm<br>Rated input power: 350 W or more<br>Grinding wheel widths: 20mm or more<br>No-load speed : upto 3,000 rpm<br>Grinding wheel bore: 20mm/2cm<br>Grit24,60 or more Weight : 10kg or less                                                                                                                                                                                                               | 1   |
| 21     | Angle Grinder    | Voltage: 20V<br>No-load speed: 8500/min<br>Disc diameter: 100mm<br>Spindle thread: M10<br>With 1pcs abrasive grinding disc with Battery                                                                                                                                                                                                                                                                                                    | 1   |
| 22     | Straight Grinder | Rated Input Power: Max 300W power consumption.<br>No-Load Speed : Upto 28,000 rpm.<br>Voltage, Electrical: Nominal230V AC supply.<br>Spindle Collar Diameter: Approximately 41mm.<br>Weight: Around 1.4kg.<br>Maximum Grinding Tool Diameter: Upto 25mm.<br>Maximum Collet Diameter: Upto 8mm.<br>Switch: Lock able switch for enhanced safety.                                                                                            | 1   |
| 23     | Circular Saw     | Rated Input Power: Approximately 1,400W maximum consumption.<br>Saw Blade Diameter: Nominal 184 mm diameter.<br>Saw Blade Bore Diameter: About 20mm standard bore size.<br>Guide Rail Compatibility: Not compatible with guiderails.<br>No-Load Speed: Typically5,200rpm.Weight: Around4.1 kg                                                                                                                                              | 1   |
| 24     | Blower           | Rated Input Power: Max 650W power consumption.<br>Weight: Approximately 1.7kg.<br>Voltage, Electrical: Nominal 230V AC supply.<br>Sound Pressure Level: Around 103 dB (A).<br>Sound Power Level: Approximately 95 dB (A).<br>Uncertainty (K): Within±3 dB                                                                                                                                                                                  | 1   |



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|--------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 25     | Cordless Screw Driver                    | Battery Capacity: Around 1.5Ah nominal capacity.<br>Torque (Soft/Hard/Max): Approximately 14Nm/30Nm/Maximum not specified.<br>No-Load Speed(1stGear/2ndGear): Rangesfrom0up to400rpm and 0 up to 1,500 rpm respectively.<br>Battery Type: Recharge able Lithium-Ion battery.<br>Chuck Capacity (Min/Max): From approximately 0.8 mm upto10mm.<br>Weight (Excluding Battery): About 0.8kg.<br>Torque Settings: 20 plus1 adjustable settings.                                                                                                                                                                                                                                                          | 1   |
| 26     | Cordless Vacuum Cleaner with Starter kit | Battery Voltage: Rate dat approximately 18.0V nominal voltage.<br>Weight Excluding Battery: Around 1.3 kg without battery attached.<br>Container Volume: Approximately 0.7 liters net capacity.<br>Filter Surface Area: Roughly 55cm <sup>2</sup> filtration surface.<br>Maximum Airflow Rate(Turbine): Upto10liters per second.<br>Maximum Vacuum Pressure(Turbine): Not exceeding 60mbarunder standard conditions.<br>Operating Time (18VBattery): Typically 7 minutes per Ah of battery capacity.                                                                                                                                                                                                 | 1   |
| 27     | Rotary Tool Kit                          | Rated Power Input: Approximately 175W within nominal voltage range.<br>Voltage: Operates within 220 to240V AC supply.<br>Weight: Around0.66kg total mass.<br>Length: Approximately 24cm overall length. Width: About 4.1cm nominal width.<br>Depth: Roughly 4.3cm depth dimension.<br>No-Load Speed: Variable speed ranging from5,000 upto 35,000rpm.<br>Battery Technology: Not applicable(n.a.). Speed Setting: Fully variable speed control as required.<br>Accessory Quick Change System: Equipped with multi chuck for rapid accessory interchange.<br>Vibration Level: Approximately 18m/s <sup>2</sup> measuredvibration                                                                      | 1   |
| 28     | Rubber Grip Hacksaw                      | Depth of Throat: Approximately 98mm(3.85 inches) nominal depth.<br>Blade Length: Around 254 mm(10 inches) standard length.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2   |
| 29     | TACHOMETER                               | Digital Laser Photo Rpm Tachometer Non-Contact Measurement Tool<br>Measures The Rpm Of Any Rotational Part Features: Display: Large 5 Digit, 18mm Lcd. Test Select: Automatic. Range: 2. 5 To 99, 999 Rpm Resolution: 0. 1 Rpm (From 2. 5 To 999. 9 Rpm) 1 Rpm (Over 1, 000 Rpm) Accuracy: +/- (0. 05 Percent +1 Digit) Distance: 50 To 500mm/ 2 To 20 Inch Memory: Last Value. Max Value. Min Rpm Powered By 1 X Battery 9v (Including For You) Size: 130x70x29mm Weight: About 160g Package Includes: 1 X Dt2234c+ Professional Digital Tachometer 3 X Approx 20cm Of Reflective Stripes (Make Rotation Measure Data More Accurate) 1 X 9v Battery 1 X Carrying Cover Case 1 X English User Manual | 1   |
| 30     | SMD REWORK STATION                       | Hot air temperature 100-480°C<br>Input voltage AC230V/50HZ<br>Spray gun power consumption 560W<br>Handle length 19.6cm<br>Console display mode Smart LCD screen<br>Hot air volume 23L/Min<br>Auto protection for heating material, which adopts Pulse Heating for better protection<br>Temperature and airflow volume controlled by handle and station both.                                                                                                                                                                                                                                                                                                                                         | 1   |



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|--------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 31     | Soldering Station          | TEMP RANGE - 200 DEGC - 450 DEG 60W<br>High temperature stability<br>Short-circuit protection of heating element, protection of sensor abnormality<br>EASY REPLACEABLE BITS | 2   |
| 32     | Hack saw Mini              | Blade Length: Approximately 10inches nominal length.<br>Handle Material: Constructed from metal as standard.<br>overall Length: Around11inchestotallength.                  | 2   |
| 33     | Claw Hammer Steel Shaft    | Weight: Approximately 8oz(220grams) nominal weight.<br>Dimensions: Around27.8cm×12.4cm×3.6cm(L×W×H) overall size                                                            | 2   |
| 34     | Ball Pein Hammer           | Weight: Approximately 110grams nominal weight.<br>Dimensions: Around32.6cm×10cm×2cm(L×W×H)over all measurements.                                                            | 2   |
| 35     | Rubber mallet              | Weight: Approximately 450grams nominal weight.<br>Dimensions: Around 33.6cm×9.6cm×6.2cm(L×W×H) overall size.                                                                | 2   |
| 36     | Ring spanner set 12 Pcs    | Weight: 3.08Kg nominal weight. Quantity: 12pcs per set.<br>Size: 6mm to 32mm overall range.                                                                                 | 1   |
| 37     | Open end spanner set 12Pcs | Weight: Approx 1.74Kg nom.wt. Qty: 12pcs/set.<br>Size: 6mm-32mm overall dims.                                                                                               | 1   |
| 38     | Allen key set 10pcs        | Hex Key Size: 1.5,2,2.5,3,4,5,5.5,6,8,10mm;<br>Qty: 10pcs/set                                                                                                               | 2   |
| 39     | Allenkeyset12pcs           | 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                                                                             | 2   |
| 40     | Combination plier          | Weight: Approx 422g nom.wt.<br>Size:8"/200mm nominal                                                                                                                        | 2   |
| 41     | Long noseplier             | Weight: Approx 399g nom.wt. Size:180mm/6"nominal                                                                                                                            | 2   |
| 42     | Circ lip straight5"        | Weight: Approx 399g nom.wt. Size:130mm/5"nominal                                                                                                                            | 2   |
| 43     | Circ lip bent              | "Weight: Approx 399g nom. wt. Size: 130mm/5""nominal"                                                                                                                       | 2   |
| 44     | Diagonal Cutter            | "Weight: Approx 239g nom. wt. Size: 180mm nominal"                                                                                                                          | 2   |
| 45     | Wire Stripper              | Weight: Approx 281g nom. wt. Size: 130mm                                                                                                                                    | 2   |
| 46     | Adjustable spanner         | Size: Upto 150mm                                                                                                                                                            | 2   |
| 47     | Pipe wrench                | Size: Max 300mm                                                                                                                                                             | 2   |
| 48     | C-clamp                    | Size: Upto 75mm                                                                                                                                                             | 4   |
| 49     | C-clamp                    | Size: Upto 150mm                                                                                                                                                            | 4   |
| 50     | Snap-off Knife             | Size: 18mmm                                                                                                                                                                 | 2   |
| 51     | 16 pcs screw driver set    | Pieces Per Set: 16pcs                                                                                                                                                       | 1   |



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|--------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 52     | 6 pcs precision screw driver set | Pieces Per Set: 16pcs                                                                                                                          | 2   |
| 53     | Max steels nip cutter            | Length: 250mm                                                                                                                                  | 2   |
| 54     | PVC Pipe cutter                  | Length: 42mm                                                                                                                                   | 2   |
| 55     | Hot Glue Gun                     | Glue Gun 150w With Brass Nozzle. & Temperature Variable From 100 To 220 Degrees with Glue Stick Transparent – 50, Yellow – 50 & white- 50 Nos. | 4   |
| 56     | Small file set                   | Length: 160mm                                                                                                                                  | 2   |
| 57     | Big file set                     | Length: 200mm                                                                                                                                  | 2   |
| 58     | Chisel set                       | Weight: 340gm                                                                                                                                  | 2   |
| 59     | Punch set                        | Weight: 390gm                                                                                                                                  | 2   |
| 60     | Bench vise                       | Base Type: Fixed Size: 2–3½"nominalJawWidth: 60mm                                                                                              | 2   |
| 61     | Router Bit Starter Kit           | Pieces Per Set: 15pcs                                                                                                                          | 1   |
| 62     | Drill bit set                    | 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<br>Wt: ~1.3Kg nom.wtSz(mm): 205×115×55 overall      | 2   |
| 63     | Baby vise                        | Vice Type: Bench Size: 2"nominal Jaw Width: 50mm                                                                                               | 2   |
| 64     | Ratchet Set                      | Vice Type: Bench Sz: 2"nominal;Jaw: 50mm                                                                                                       | 2   |
| 65     | Pegboard                         |                                                                                                                                                | 2   |
| 66     | Digital Vernier Caliper          | Product Type: Digital Calliper Meas. Range: 0–150mm/0–6"Resolution: 0.01mm                                                                     | 2   |
| 67     | Micrometer                       | Resolution: 0.001mm/0.00005"Meas.Range: 0–25mm/0–1"                                                                                            | 1   |
| 68     | Steel Rule 300mm                 | Product Type: Steel Rule Scale Size: 12"/300mm<br>Material: Stainless Steel                                                                    | 5   |
| 69     | Steel Rule 600mm                 | Product Type: Steel Rule Scale Size: 24"/600mm<br>Material: Stainless Steel                                                                    | 5   |
| 70     | Engineering Square               | Size: 150×80mm nominal Material: Carbon Steel                                                                                                  | 2   |
| 71     | Meter Tape 30m                   | Length: 30m                                                                                                                                    | 1   |



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| Sr. No | Equipment's                                                             | Specifications                                           | Qty |
|--------|-------------------------------------------------------------------------|----------------------------------------------------------|-----|
| 72     | MeasuringTape3M                                                         | Length: 3m                                               | 3   |
| 73     | MeasuringTape5M                                                         | Length: 5m                                               | 3   |
| 74     | Spirit Level                                                            | Vials: 3Accuracy: 0.5mm/mLength: 300mmProductType: Level | 3   |
| 75     | Goggle                                                                  | Goggle-Industrial Standard Make                          | 5   |
| 76     | Apron                                                                   | Apron-Standard Make                                      | 5   |
| 77     | Ear Muff                                                                | Earmuff- Industrial Standard Make                        | 5   |
| 78     | Mask                                                                    | Mask- Industrial Standard Make                           | 50  |
| 79     | Fire Extinguisher                                                       | Fire Extinguisher-Industrial Standard Make               | 6   |
| 80     | First Aid Kit                                                           | First Aid Kit- Industrial Standard Make                  | 2   |
| 81     | Gloves Pair                                                             | Gloves- Industrial Standard Make                         | 10  |
| 82     | AcrylicSheet3m<br>m,4ftx4ft                                             |                                                          | 20  |
| 83     | Acrylic Sheet 4mm,<br>4ftx4ft                                           |                                                          | 20  |
| 84     | Acrylic Sheet 5mm,<br>4ftx4ft                                           |                                                          | 20  |
| 85     | Foam Sheet 8mm,<br>4ftx4ft                                              | Sun board                                                | 2   |
| 86     | Foam Sheet 10mm,<br>4ftx4ft                                             | Styrofoam                                                | 1   |
| 87     | Foam Sheet 12mm,<br>4ftx4ft                                             | Depron forex                                             | 1   |
| 88     | Foam Sheet 15mm,<br>4ftx4ft                                             |                                                          | 1   |
| 89     | Ply Board 5mm,<br>2ftx4ft                                               |                                                          | 12  |
| 90     | Nuts (3mm, 4mm,<br>5mm, 6mm, 8mm,<br>10mm,) Pack of 100<br>8mm 10 mm 50 |                                                          | 1   |
| 91     | Nylon Rod 10mm,1m                                                       |                                                          | 5   |
|        |                                                                         |                                                          |     |



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| Sr. No | Equipment's                                                 | Specifications    | Qty |
|--------|-------------------------------------------------------------|-------------------|-----|
| 92     | Bolts(3mm,4mm,5mm,6mm,8mm,10mm,12mm) dia1" Inch Pack of 100 |                   | 1   |
| 93     | Screws(3mm,4mm,5mm) Pack of 100                             |                   | 1   |
| 94     | Washers(3mm,4mm,5mm,6mm,8mm,10mm,12mm) Pack of 100          |                   | 1   |
| 95     | Studs(6mm,8mm) 1 Meter                                      |                   | 2   |
| 96     | Nails(1",2",3",1.5",5") Pack of 100                         | Very Good Quality | 1   |
| 97     | Fevicol 2Kg                                                 | Very Good Quality | 1   |
| 98     | 2 Way Tape                                                  | Very Good Quality | 10  |
| 99     | PVC Pipe .75",10ft                                          | Very Good Quality | 10  |
| 100    | PVC Pipe 1",10ft                                            | Very Good Quality | 10  |
| 101    | PVC Pipe 1.5",10ft                                          | Very Good Quality | 10  |
| 102    | PVC Pipe 2.0",10ft                                          | Very Good Quality | 10  |
| 103    | Aluminium channels (L,C, Box, strip length 12ft)            | Very Good Quality | 2   |
| 104    | PCB Drill Bit 0.4mm                                         | Very Good Quality | 10  |
| 105    | PCB Drill Bit 0.8mm                                         | Very Good Quality | 10  |
| 106    | PCB Drill Bit 1mm                                           | Very Good Quality | 10  |
| 107    | Drill Bit 4mm                                               | Very Good Quality | 5   |
| 108    | Drill Bit 5mm                                               | Very Good Quality | 5   |
| 109    | Drill Bit 6mm                                               | Very Good Quality | 5   |
| 110    | Drill Bit 8mm                                               | Very Good Quality | 2   |
| 111    | Drill Bit 10mm                                              | Very Good Quality | 2   |



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| S.No. | ITEM                                         | QTY |
|-------|----------------------------------------------|-----|
| 112   | <b>SENSOR KIT</b>                            |     |
|       | ULTRASONIC SENSOR                            | 2   |
|       | PIR SENSOR                                   | 2   |
|       | MPU6050 SENSOR                               | 2   |
|       | LDR SENSOR                                   | 2   |
|       | DHT11 SENSOR                                 | 2   |
|       | DHT22 SENSOR                                 | 2   |
|       | VIBRATION SENSOR                             | 2   |
|       | IR SENSOR ARRAY                              | 2   |
|       | MQ-2                                         | 2   |
|       | MQ-3                                         | 2   |
|       | MQ-135                                       | 2   |
|       | MQ-7                                         | 2   |
|       | MQ-4                                         | 2   |
|       | TOUCH SENSOR                                 | 5   |
|       | IR SENSOR MODULE                             | 3   |
|       | LASER MODULE                                 | 3   |
|       | SOIL MOISTURE SENSOR                         | 3   |
|       | BUZZER MODULE                                | 3   |
|       | SOUND SENSOR MODULE                          | 2   |
|       | PEIZO ELECTRIC DISC                          | 5   |
|       | CURRENT SENSOR MODULE                        | 2   |
|       | VOLTAGE SENSOR MODULE                        | 2   |
|       | JOY STICK MODULE                             | 2   |
|       | RAIN DROP SENSOR MODULE                      | 3   |
|       | FORCE SENSOR                                 | 1   |
|       | FLEX SENSOR 2.2 INCH                         | 1   |
|       | RFID SENSOR RC522 MODULE                     | 3   |
|       | TEMPERATURE SENSOR DS1820 PROBE              | 3   |
|       | WATER FLOW SENSOR                            | 2   |
|       | FLOAT SENSOR                                 | 2   |
|       | COLOR SENSOR                                 | 2   |
|       | MATRIX KEY PAD                               | 2   |
|       | GSM MODULE - SIM800C WITH BUILT IN REGULATOR | 2   |
|       | GPS MODULE NEO 6M                            | 2   |
|       | BLUETOOTH MODULE HC-05                       | 3   |
|       | RELAY MODULE 1 CHANNEL                       | 2   |
|       | RELAY MODULE 2 CHANNEL                       | 2   |
|       | RELAY MODULE 4 CHANNEL                       | 2   |
|       |                                              |     |



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| S.No.      | ITEM                                                                                | QTY |
|------------|-------------------------------------------------------------------------------------|-----|
| <b>113</b> | <b>BOARDS</b>                                                                       |     |
|            | ARDUINO UNO R3 - DIP VERSION WITH CABLE                                             | 5   |
|            | ARDUINO UNO R4 WITH CABLE                                                           | 2   |
|            | ARDUINO NANO WITH CABLE                                                             | 5   |
|            | ARDUINO MEGA WITH CABLE                                                             | 2   |
|            | ESP8266 NodeMCU WITH CABLE                                                          | 3   |
|            | ESP32 Development Board WITH CABLE                                                  | 2   |
|            | ESP32 CAM WITH DOCK                                                                 | 2   |
|            | RASPBERRY PI 5 - 4GB WITH ALL ACCESSORIES (Memory card, case, cable & power supply) | 1   |
|            | RASPBERRY PI 5 - 8GB WITH ALL ACCESSORIES (Memory card, case, cable & power supply) | 1   |
|            | RASPBERRY CAMERA MODULE -3                                                          | 1   |
|            | SOLDER WIRE 40GRM                                                                   | 5   |
|            | SOLDER FLUX                                                                         | 5   |
|            | SOLDERING IRON 25W WITH STAND                                                       | 5   |
|            | DESOLDER PUMP (With built in Iron & Pump)                                           | 1   |
|            | 830 POINTS SOLDERLESS BREADBOARD                                                    | 5   |
|            | 400 POINTS SOLDERLESS BREADBOARD                                                    | 5   |
|            | COPPER CLAD BOARD SINGLE SIDE 4*6                                                   | 5   |
|            | ZERO BOARD SINGLE SIDE 4*6                                                          | 5   |
|            |                                                                                     |     |
| <b>114</b> | <b>WIRE SET - ASSORTED</b>                                                          |     |
|            | MALE TO MALE BREADBOARD JUMPER                                                      | 10  |
|            | FEMALE TO FEMALE BREADBOARD JUMPER                                                  | 10  |
|            | MALE TO FEMALE BREADBOARD JUMPER                                                    | 10  |
|            | HOOK UP WIRE - PACKET                                                               | 2   |
|            | FLEXIBLE WIRE PACKET                                                                | 3   |
|            |                                                                                     |     |
| <b>115</b> | <b>DISCRETE COMPONENT SET</b>                                                       |     |
|            | RESISTOR SET 1/4 W                                                                  |     |
|            | 100E, 220E, 330E, 470E, 1K, 10K - 50 EACH                                           | 1   |
|            | 2.2K, 4.7K, 5.6K, 22K, 47K, 56K, 100K, 220K, 470K, 1M, 10M - 20 EACH                | 1   |
|            | CAPACITORS                                                                          |     |
|            | PAPER CAPACITOR - PF BOX                                                            | 2   |
|            | ASSORTED ELECTROLYTIC CAPACITOR (1,2.2, 3.3,4.7,10, 47, 100, 220,470, 1000uF )      | 1   |
|            | 2200uF & 4700uF - 5 EACH                                                            | 1   |
|            | MIX DIODE SET - IN4007 & ZENER 4148 - 20 EACH                                       | 1   |
|            | LED - ASSORTED 5MM - 5 COLORS 50 EACH                                               | 1   |
|            | LED TRI COLOR - 4 PIN                                                               | 20  |
|            |                                                                                     |     |
| <b>116</b> | <b>POWER SUPPLYS</b>                                                                |     |
|            | LI-ON BATTERY SET OF 20 - 18650 2500mAh                                             | 1   |
|            | LI-ON 11.1V BATTERY PACK                                                            | 1   |



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| S.No.      | ITEM                                                                                 | QTY |
|------------|--------------------------------------------------------------------------------------|-----|
|            | LI-ON 7.4V BATTERY PACK                                                              | 1   |
|            | LI-ON BATTERY CHARGER 4 CELL                                                         | 1   |
|            | LI-ON BATTERY CHARGER 2 CELL                                                         | 1   |
|            | SMPS ADAPTER 12V/1A                                                                  | 2   |
|            | SMPS ADAPTER 12V/2A                                                                  | 2   |
|            | SMPS ADAPTER 5V/1A                                                                   | 2   |
|            | SMPS ADAPTER 5V/2A                                                                   | 2   |
|            | SMPS ADAPTER 12V/10A                                                                 | 1   |
|            | BUCK CONVERTER - LM2596                                                              | 3   |
|            | BOOST CONVERTER - XL6009                                                             | 3   |
|            |                                                                                      |     |
| <b>117</b> | <b>ROBOTICS</b>                                                                      |     |
|            | ROBOTIC DIY KIT - 4 WD CHASIS SET                                                    | 2   |
|            | ROBOTIC DIY KIT - 2 WD CHASIS SET                                                    | 2   |
|            | ROBOTIC MOTORS - BO SET OF 20                                                        | 1   |
|            | ROBOTIC WHEELS - BO SET OF 20                                                        | 1   |
|            | STEPPER MOTOR WITH DRIVER BOARD                                                      | 2   |
|            | SERVO MOTOR 360 ROTATION                                                             | 3   |
|            | SERVO MOTOR 180 ROTATION                                                             | 5   |
|            | SERVO MOTOR SG90                                                                     | 10  |
|            | SERVO MOTOR MG90                                                                     | 5   |
|            | CASTOR WHEEL                                                                         | 5   |
|            |                                                                                      |     |
| <b>118</b> | <b>DISPLAY MODULE</b>                                                                |     |
|            | LCD 16*2 WITH I2C                                                                    | 5   |
|            | OLED 0.96                                                                            | 5   |
|            |                                                                                      |     |
| <b>119</b> | <b>TOOLS</b>                                                                         |     |
|            | STRIPPER - PYE/EASTMAN/ TAPARIA                                                      | 3   |
|            | NIPPER                                                                               | 2   |
|            | NOSE PLIER                                                                           | 2   |
|            | 2-IN1 SCREW DRIVER                                                                   | 3   |
|            | SMOKE ABSORBER                                                                       | 1   |
|            | MAGNIFIER - 5X WITH STAND / TABLE CLAMP - Lighting: 22W LED Lens<br>Diameter: 12.7mm | 1   |
|            | SILICONE MAT 450 MM X 300 MM                                                         | 2   |
|            | CUTTING MAT A3 SIZE                                                                  | 2   |
|            | ESD WRIST MAT WITH WRIST BAND                                                        | 2   |
|            | PCB HOLDER                                                                           | 2   |
|            | ASSORTED SET OF M3 FASTER - HEX NUT & BOLTS                                          | 1   |
|            | COMPONENT ORGANIZER BOX WITH 39 DRAWERS                                              | 2   |
|            |                                                                                      |     |

