

Mandatory Equipment

| S. No. | Name of Equipment | Quantity |
|---------------|--|-----------------|
| 1 | Laser Cutter | 1 |
| 2 | Vinyl Cutter | 1 |
| 3 | 3D Printer | 1 |
| 4 | 3D Scanner | 1 |
| 5 | CNC Router | 1 |
| 6 | Mini Desktop Lathe cum Milling | 1 |
| 7 | Drilling M/c 1 HP Motor | 1 |
| 8 | Handheld High Speed Drilling M/c-15000 RPM with accessories - 2 Nos. | 2 |
| 9 | Benchtop Grinder Machine | 1 |
| 10 | Solder stations (5 nos) | 5 |
| 11 | Desoldering M/c | 1 |
| 12 | Advanced, motorized Sewing Machine | 1 |
| 13 | Wood Lathe | 1 |
| 14 | Power Tools | 1 |
| 15 | Portable Welding M/c | 1 |
| 16 | Refrigerator | 1 |
| 17 | Normal and Microwave Oven | 1 |
| 18 | Magnifying Glass with Stand- 2 No. | 2 |
| 19 | Digital Microscope | 1 |
| 20 | Mixed Signal Oscilloscope | 1 |
| 21 | Digital Storage Oscilloscope | 1 |
| 22 | Signal Generator | 1 |
| 23 | Variable Power Supply | 1 |
| 24 | Benchtop Multimeter | 1 |
| 25 | Projector | 1 |
| 26 | Heavy Duty Laser Printer | 1 |
| 27 | PCB Milling Machine* | 1 |
| 28 | PCB Prototype Machine | 1 |
| 29 | Computer Workstation in networking- 5 Nos | 5 |
| 30 | Quadcopter assembly kit | 1 |

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| 31 | Smart Board | 1 |
| 32 | Relay Module | 1 |
| 33 | GPIO module | 1 |
| 34 | Electric Bicycle motor & Access | 1 |
| 35 | Granite surface plate | 1 |
| Mandatory Consumable | | |
| 1 | Vacuum Cleaner | 1 |
| 2 | Hot Air Gun- 5 Nos. | 5 |
| 3 | Measuring Equipment [Vernier calliper (0-200/0.01), | 1 |
| 4 | Vernier height gauge (0-1000mm), Micrometer 0-50, 50-100/0.001 inside and outside)], Metal Scale etc | 1 |
| 5 | Fire Extinguisher | 1 |
| 6 | First Aid Box | 1 |
| 7 | Digital Multimeter (5 units) | 5 |
| 8 | Clothes Iron (5 units) | 5 |
| 9 | Electronic Component Repository (LCR Meter, Variac etc) | 1 |
| 10 | 3D printer Filament (Depending on the printer, 2 rolls) | 2 |
| 11 | Acrylic Sheets (2mm,3mm, 4mm, 5mm All of area 8ft x 4ft) 2 sheets each | 2 |
| 12 | Foam Sheets (8mm, 10mm, 12mm, 15mm All of area 8ft x 4 ft) 2 sheets each | 2 |
| 13 | Ply Boards (8mm, 12 mm, 18mm, All of area 8ft x 4ft) 2 sheets each | 2 |
| 14 | Nylon Rods,12mm, 15mm, 18mm, 25mm All of length 1 m,5 each | 5 |
| 15 | Nuts,3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm,100 each | 100 |
| 16 | Bolts,Dia (3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm) length (1", 1.5", 2", 2.5"),100 each | 100 |
| 17 | Screws,3mm, 4mm, 5mm,100 each | 100 |

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| 18 | Washers,3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm,100 each | 100 |
| 19 | Studs,6mm, 8mm, Length 1m,5 each | 5 |
| 20 | Nails,1", 2", 3",100 each | 100 |
| 21 | Adhesives,M-Seal, Feviquich, Fevi Bond,10 each | 10 |
| 22 | 2Way Tapes,20 rolls, | 20 |
| 23 | PVC Pipes,.75", 1", 1.5", 2.5", 3" Length 10ft,1 each | 1 |
| 24 | Aluminum Channels,L, C, Box, Strip Length 12ft,2 each | 2 |
| 25 | PCB Drill Bits,0.5mm, 0.8mm, 1mm,20 each | 20 |
| 26 | Drill Bits,3mm, 4mm, 5mm, 6mm,20 each | 20 |
| 27 | Drill Bits,8mm, 10mm, 12mm,5 each | 5 |
| 28 | Carpentry Boring Bits,Entire Kit,1 kit | 1 |
| 29 | Electronic Active and Passive components,Resistors, Capacitors, diodes and transistors,10 each | 10 |
| 30 | USB Cables,For connecting Arduino and other development boards,10 | 10 |
| 31 | Radium Cutter Knives,10 | 10 |
| 32 | Glue Sticks,50 | 50 |
| 33 | Hack Saw Blades,6" and 12",10 each | 10 |
| 34 | 9V Battery Snaps,,20 | 20 |
| 35 | LAN Cables,For connecting Raspberry Pi,5 | 5 |
| 36 | 9V Batteries, 20 | 20 |
| Mandatory tools | | |
| 1 | Hacksaw (5 Nos.) | 5 |
| 2 | Micro Chisel Set (3 Nos.) | 3 |
| 3 | Pliers (3 Sets) | 3 |
| 4 | Manual PCB Drilling Machine (3 Nos.) | 3 |
| 5 | PCB power Drilling Machine (3 Nos.) | 3 |
| 6 | Cordless Drilling Machines (2 Nos.) | 2 |
| 7 | Jigsaw Machines (2 Nos.) | 2 |
| 8 | Power Circular Saw (2 Nos.) | 2 |
| 9 | Files Set (2 Sets) | 2 |

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| 10 | File Handles (1 Set) | 1 |
| 11 | Needle Files (2 Sets) | 2 |
| 12 | Pipe Vice (2 Pcs) | 2 |
| 13 | Mini HackSaw (5 Nos.) | 5 |
| 14 | Ball Peen Hammer (5 Nos.) | 5 |
| 15 | Steel Shaft Claw Hammer (5 Nos.) | 5 |
| 16 | Nylon Mallet (5 Pcs) | 5 |
| 17 | Rubber Mallet (5 Pcs) | 5 |
| 18 | Allen Key Set (3 Sets) | 3 |
| 19 | Dremel multi tool kit (2 Nos.) | 2 |
| 20 | Double ended spanner sets (2 Sets) | 2 |
| 21 | 12 Piece Open ended Spanner Set (2 Sets) | 2 |
| 22 | Belt and Disc Sanding Machine (1 No.) | 1 |
| 23 | Scroll Saw Machine (1 No.) | 1 |
| 24 | Tool Wall covering Perforator (3 pcs) | 3 |
| 25 | Dremel Moto Saw | 1 |
| 26 | Bench Grinding Machine | 1 |
| 27 | Power Return Measuring Tape (5 Nos.) | 5 |
| 28 | Tri Square 8" (5 Nos.) | 5 |
| 29 | Stainless Steel Rule (5 Nos.) | 5 |
| 30 | Digital Vernier Caliper (5 Nos.) | 5 |
| 31 | Spirit Level (5 Nos.) | 5 |
| 32 | Dremel Cordless Rotary Tool | 1 |
| 33 | GPIO Power Router | 1 |
| 34 | Sewing Machine | 1 |
| 35 | Impact Drill (3 Units) | 3 |
| 36 | Ratchet Set (2 Units) | 2 |
| 37 | Router Bit Starter kit | 1 |
| 38 | Scroll Saw | 1 |
| 39 | Hot Air Blower With Soldering Iron (5 Nos) | 5 |
| 40 | Tin Cutter with Spring (10 units) | 10 |
| 41 | Centrifugal Blower | 1 |
| 42 | Screwdriver Sets (2 sets) | 2 |
| 43 | Cutting Mats (5 Nos.) | 5 |
| 44 | Vacuum Cleaner (2 Nos.) | 2 |
| 45 | Hot Air Gun- 5 Nos. | 5 |

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| 46 | Micrometer - 5 Nos | 5 |
| 47 | Glue Gun-5 Nos | 5 |
| 48 | Air Compressor | 1 |
| 49 | Allen Set Wi ench(5 set) | 5 |
| 50 | Tongue and Groove Pliers (5 pcs) | 5 |
| 51 | Non-contact voltage tester (5 pcs) | 5 |
| 52 | Wire Stripper (5 pcs) | 5 |
| 53 | Fish Tape (2 pcs) | 2 |
| 54 | Flashlights (2 pcs) | 2 |
| 55 | DC Regulated Power Supply (3 units) | 3 |
| 56 | Soilder Wick (10 pcs) | 10 |
| 57 | Filament Dehydrator | 1 |
| 58 | Reflow Oven | 1 |
| 59 | Glass Cutter | 1 |
| 60 | Gypsum (10kg) | 10 kg |
| 61 | Digital Multi meter (5 units) | 5 |
| 62 | Clothes Iron (5 units) | 5 |
| 63 | Oscilloscope (4 units) | 4 |
| 64 | C-Clamp (10 pcs) | 10 |
| 65 | Ratchet clamp 8 inches/200mm (10 pcs) | 10 |
| 66 | Baby Vice 60 mm (5 pcs) | 5 |
| 67 | Bench vices (5 units) | 5 |
| 68 | Anvil | 1 |
| 69 | Metal Scale | 5 |
| 70 | 9V Battery and Power Bank (12V and 1 Ampere) | 20 |
| 71 | 12V/1 Amp Battery | 20 |
| 72 | 9V Adapter | 10 |
| 73 | 12V Adapter | 10 |
| 74 | 5v Adapter | 10 |
| 75 | Home Automation Sensor | 10 |
| 76 | Home Automation Sensor | 10 |
| 77 | Home Automation Sensor | 10 |
| 78 | Home Automation Sensor | 10 |
| 79 | Home Automation Sensor | 10 |
| 80 | Industrial Automation Sensor | 10 |
| 81 | Industrial Automation Sensor | 10 |

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| 82 | Industrial Automation Sensor | 10 |
| 83 | Industrial Automation Sensor | 10 |
| 84 | Agriculture Automation Sensor | 10 |
| 85 | Agriculture Automation Sensor | 10 |
| 86 | Agriculture Automation Sensor | 10 |
| 87 | Agriculture Automation Sensor | 10 |
| 88 | Agriculture Automation Sensor | 10 |
| 89 | Agriculture Automation Sensor | 10 |
| 90 | Agriculture Automation Sensor | 10 |
| 91 | ESP32 (LTE, GPRS, and GPS) & 5G Module | 5 sets |
| 92 | HDMI Screen (5inch) | 5 sets |
| 93 | LoRa Module Tx and Rx | 5 pair |
| 94 | Negative &Positive Power supply(12/5v/15) | 5 sets |
| 95 | Clamp Meter | 5 sets |
| 96 | Coil Winding M/C Motorized | 1 |
| 97 | Plotter-Printer | 1 |
| 98 | HAM transceiver with peripheral equipment's | 1 |
| 99 | Node MCU (ESP8266) Board | 10 |
| 100 | Raspberry Pi 5 set | 5 |
| 101 | Beagle Bone AI For Artificial | 5 |
| 102 | Beagle Bone Black Wireless | 5 |
| 103 | Peripheral Set for Arduino / Node | 10 |
| 104 | ESP32 Cam Development Board Wifi+ | 5 |
| 105 | Solnoi Electronics Raspberry Pi Camera | 5 |
| 106 | Arduinio UNO Boards | 10 |