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		Electronic/Protot	typing Facility Equipment
Sr. No.	Equipment Name	Image	Equipment Detail
1	3D Scanner		Brand – Shining 3D Model - EinScan-SE 3D Scanner Specification - Scan volume - min 30 x 30 x 30 mm, max 700 x 700 x 700 mm, Range of Single Capture - 200×150 mm, Single Shot Accuracy - ≤0.1 mm, Scan Speed - <8 s Operational area - Scanning, Observe a scene in three dimensions Software Support - Graphics card: Nvidia series
2	PCB Prototyping Machine (PTH Setup with Power Supply, TINA LOCK V11DS)		Brand – NVIS Model – NVIS72 Specification – Working area: 220x200 mm, Min.drill hole size: 0.3 mm, Min. Cutting trace/space: 0.2 mm, Spindle speed (Max.rpm): 25000 rpm spindle, Motor: BLDC Motor, Miling depth sensing: Automatic, Tool change: Manual, Tool Holder: 1/8 inch, X/Y/Z driver: Stepping, Software CD, Learning Material CD, Copper clad boards (single side 140 x 140mm) pack of 10: 05 nos, Copper clad boards (double side 140 x 140mm) pack of 10:01 Nos., Engrave bits 0.15mm(60)-2: 02 Nos, Tinning liquid (125ml): 01 Nos. Operations – PCB routing Material – PCB boards (Glass fiber reinforced epoxy resin)
3	3D Printer	Ultimaker "	Brand - Ultimaker 2+ Model - Think3D Specification - Build volume: 223 x 223 x 205 mm, Max layer resolution - 20microns, XY positioning precision - 12.5 microns, Z positioning precision - 5 microns, Print speed - 30 to 300 mm/s, Print technology- FDM, Filament diameter- 2.85 mm, File supported - *.stl, Software support - CURA Operational area - Product development, Manufacturing, End-use parts, Architecture, Education Material support - PLA, ABS Filament.
4	Mixed Signal Oscilloscope		Brand – Tektronix Model – MSO2014B Specification – 100 MHz, 4 Analog Plus 16 Digital Channels with all Serial Triggering and Analysis (CAN, LIN), I2C, SPI, RS232C
5	Power Supply with Probes (5 Nos)	000 - 32 1.	Brand – Hatco India (HTC) Model – DC3010 Specification – 30V/10A Single Channel with Probes
6	DC Power Supply		Brand – Itech Electronic Model – IT 6322A Specification – 30V/3A/90W×2CH 5V/3A/15W×1CH
7	Function / Arbitrary Waveform Generator (2 Nos)		Brand – Tektronix Model – AFG 1022 Specification – 20 MHz, 2 Channel
8	Oscilloscope		Brand – Tektronix Model – TBS1102B Specification – 100MHz (Basic Version)
9	Digit DMM	9.001349 V-	Brand – Tektronix 6, 5 Model – DMM4040 Specification – 100MHz (Basic Version)
10	Oscilloscope Probes		Brand – Tektronix 1000:1 Model – P5122 Specification – 200MHz, 1000V 1 KV scope probe
11	DC Power Supply	Scientific St. Press facility bounds 4173	Brand – Scientech Model – 4073 Specification - DC 0 - 30 V / 2 A
12	Handheld Digital Multimeter	and the state of t	Brand – Keysight Model – U1231A Specification – 6000 count, Handheld Digital Multimeter
13	Handheld LCR Meter		Brand – Keysight Model – U1731C/ U1732C/ U1733C Specification – 20000 count, 0.2 % basic accuracy







Electronic/Prototyping Facility Equipment			
Sr. No.	Equipment Name	Image	Equipment Detail
14	Tachometer	100 35800 mm	Brand – Fluke Model – 931ESP Specification – Combo Tachometer: contact and non-contact
15	Clamp meter	Distributed by TestEquity	Brand – Keysight Model – U1211A/U1212A/U1213A Specification – RMS 1000A AC
16	Digital Multimeter (4 Nos)		Brand – HTC Model – 830L Specification – AC DC 600V, Current DC 10A
17	Multimeter	4.8	Brand – Rishabh Model – MM20DMM Multiseries /14S Specification – No. of counts: 3100, Basic Accuracy: 025%, Current AC 3mA, 300mA, 10A
18	Soldering Station	1 350 in a second secon	Brand – Weller Make Model – WSD81I Specification – 1 Channel, 70W/230V Soldering Station with A020271711 - MXTA 1.6mm Soldering Tips Operations – Soldering
19	Soldering Gun (5 Nos)		Brand - SOLDRON Specification - 25W, 230V Operations - Soldering.
20	Desoldering Gun (5 Nos)	THO ETC.	Brand – YATO Model – YT-82743 Operations - Desoldering.
21	Precision Screwdriver Set (4 Nos)		Brand – Stanley Model – 66=039 Specification – 6 piece precision screwdriver set
22	Lenses (5 Nos)		Brand – MG Model – MG 89076 Specification – 4x and 6x magnifying capacity, 75mm. Operations – Circuit magnification.
23	Rubber Hand Gloves for Personal Safety (5 Nos)	S Allton Frage .	Brand – VOLK Model – 9-9.5 Operations – Safety Gloves.
24	Hot Air Heat Gun	and the state of t	Brand – Weller Model – 6966 EK Specification – 50W/230V
25	Table Top Maginifier with Lamp		Brand – MG Model – MG16129-C Specification – 5LED Auxilary clip magnifier, AC/DC interchangeable, Size: 2.5x90, 7.5x34, 10x34. Operations – Circuit magnification.
26	Desoldering Pump	Weller SA21A	Brand – Weller Model – SA21A
27	Handy Tools	A A I	Electronic Consumables (Soldering Metal and Insulation Tape, Banana Pins & Crocodile Pins), Accessories (ESD rubber MAT 1x10 mtr, Helmet, Gloves, Apron, Goggles, Handgloves, Shield, Gum Boots).







	Computer/Software Facility			
Sr. No.	Equipment Name	Image	Equipment Detail	
1	Workstation (02 nos.)		Intel Core i7 7700T processor, Integrated Graphics, Intel H110, Chipset, 2*8GB DDR4 2133MHz, 1TB GB 7200 RPM, 21.5" WTFT No, TCO, VGA, 2 GB Nvidia Graphic Card, USB Keyboard, USB Mouse, MT Chassis, 4 USB 3.0 ports, 4 USB 2.0 ports, 1 VGA, 1 Serial, 1 RJ- 45, Audio in and Audio out, Windows 10 Pro 64Bit	
2	Industrial Design & Development Tool (02 nos.)		Creo Simulate	
3	IGETIT (02 nos.)	IGET IT. BY TATA TICHOLOGIAS	TATA Technologies Knowledge Management Platform	
4	ISRO (Feast) Tool (05 nos.)		Linear static analysis, Free-vibration analysis, Buckling analysis, Transient response, Frequency response, Random response, Base excitation, Inertia relief method, Visco-elastic analysis, Thermal analysis.	
5	Industrial Simulation Tool (02 nos.)		MSC Pack, Adams Studio Package, MSC Apex Modeler with Patran Bundle, MSC Apex structures, MSC Nastran Linear Structures Package, Simufact Forming Hub, Simufact Forming Parallel Core, scFlow – Standard Set.	
6	3D object modeling software	SketchUp Pro	Sketchup Pro	
7	CAD/CAM Software		Brand – Mastercam software for VMC and CNC Router	
8	CAD software	ZWCAD	Brand - ZWCAD Professional software for basic CAD	
9	PCB Design Software		Brand - Pads Standard 3D suite AP SW	
10	Corel Draw		Brand - Corel Technical Suite 2018 Part No.: LCCDTS2018ML	
11	Product Development and Simulation	Rhinocoros Nutricularia francisco Penguin Penguin Penguin	Brand - Rhino, Flamingo, Penguin, Bongo Bundle	
12	Printer		Brand – EPSON Model: L-1300 Specification – 17PPM, 5760x5760DPI, AC 110V-240V, 50-60 HZ, 40 sheets paper output	















	Mechanical - Metal/Wood Working Facility			
Sr. No.	Equipment Name	Image	Equipment Detail	
10	Stone Grinding Wheel Machine		Brand - Stanley Model - STGB3715 Specification - Power - 1300 W, Disc Capacity - 180 mm. Operations - Metal grinding. Materials - Metals.	
11	Radial Band saw		Brand - Jai Max Series Model - 661010np Specification - Diameter of saw wheels - 455 mm, Throat depth - 430 mm, Maximum cutting capacity - 254 mm, Work table size - 535 mm × 585 mm, Table tilt degree - 45°, Width of saw wheels - 50 mm, Blade length - 3500 mm, Speed of saw wheels - 500 rpm/750 rpm, Power required (HP/rpm) - 2/1440, Approximate weight of machine - 300 kg. Operations – Wood cutting. Materials - Wood.	
12	Surface planner with circular saw	PONDER	Brand - Jai Popular Series Model - 206 (661009np) Specification - Power required HP/rpm - 2/1440, Cutter block speed - 4000 mm/s, Max circular saw diameter - 300 mm, Surfacing capacity - 228 mm, Length of surface table - 1220 mm, Rebating capacity - 12.5 mm, Up/Down movement of circular saw - 75 mm, Approximate weight of machine - 150 kg. Operations - Wood planning and cutting. Materials - Wood.	
13	Circular saw with tilting model		Brand - Jai Master Series Model - 534 (661009np) Specification - Circular saw diameter × bore - 305 mm ×25.4 mm, Maximum depth of cut - 89 mm, Table tilt degree - 45°, Work table size - 660 mm × 560 mm, Circular saw speed - 4000 rpm, Power required (HP/rpm) - 3/1440, Approximate weight of machine - 175 kg. Operations - Wood cutting. Materials - Wood.	
14	Wood Belt Sander with Disc		Brand - Jai Popular Series Model - NA Specification - Sanding belt size - 150 mm × 1220 mm, Sanding disc size (diameter) - 254 mm, Spindle (rpm) - 1400 rad/s, Power required (HP/rpm) - 1/1440, Approximate weight of machine - 50 kg. Operations - Wood grinding. Materials - Wood.	
15	Vertical Milling Center with Stabilizer		Brand - 3D Magic Model - NA Specification - Travels (x, y, z) - 600 mm, 400 mm, 300 mm, Maximum feed rate - 0.1 mm/sec, Spindle run out - 10 microns, Spindle speed range -10 to 600 rpm, Maximum tool weight - 5 kg, Number tools in ATC - 12 tools, Air pressure requirement - 5 bar, Overall machine dimensions - 2000 mm × 700 mm × 2100 mm, Table size - 800 mm × 400 mm, Maximum load on table - 75 kg, Net weight of the machine - 2 tons, Axis motor type - servo motors, Power requirement - 5 to 6 kw. Operations - Milling. Materials - Metals.	
16	Painting Booth		Brand – TECHExpert Model – Dyna Spray-WW36 Specification – width 4100/3600mm, depth 3250/1800mm, height 3600/2100mm, Capacity: 1x7900 cu.m/hr, Motor rating: 3.70Kw Operations – Painting	
17	CNC Router	TIR 04/04	Brand - TRILOK Model - TIR/04/04 Specification — Working area - 1200 mmx1200 mmx20 mm, Precision - +/- 0.05 mm/300 mm, Repeatability - +/-0.05 mm, Spindle speed - 24000 rpm, Drive system - Servo motor, Spindle power - 5.5kw water cooled, Collet Diameter- ER25, Maximum power consumed - 6kw, Maximum working speed - 20m/min, Maximum rapid — 25m/min, Command Format - G code uoo mmg. Operations — Drilling, Engraving and Cutting. Materials — Non-ferrous Metals, MDF, Wood, Foam, PVC, Plywood, Marble, Acrylic.	









Mechanical - Metal/Wood Working Facility			
Sr. No.	Equipment Name	Image	Equipment Detail
18	Vice leg 10cm jaw		Brand - KGN Model - NA Specification - 10 cm Operations - Holding. Materials - Metals.
19	Wood working vice		Brand - Unique Model - NA Operations - Holding. Materials - Wood.
20	Machine Vice 15cm		Brand - Apex Model - NA Specification — 15 cm Operations - Holding. Materials - Metals.
21	Vice Bench 12cm Jaws		Brand - Apex Model - NA Specification - 12 cm Operations - Holding. Materials - Metals and Wood.
22	Vee-Block and clamps	99	Brand: AGAR Tools Model: 222B Specification: 100 x 75x 75 mm
23	Vee-Block and clamps		Brand: Samrat Model: 224A Specification: 6 x 4 x 4 in.
24	Portable Hand Drill (Electric) 0 to 6mm		Brand – Bosch Model – GSB 10 RE Professional Specification – 500W, Chuck capacity: 1.5-10mm, No load speed: 0-2600 rpm, Max. Drilling diameter in concrete/masonry: 10mm, Max. Drilling diameter in steel: 8mm, Max. Drilling dia. In wood: 20mm, Compact tool for screw driving. Operations – Drilling
25	CORDLESS Drill		Brand – Bosch Model – GSR 140-Li Specification – Battery Operated upto 8mm (14V/18V). Operations – Drilling
26	Hand held sander / polisher		Brand – Bosch Model – GEX 125-1 A/AE, Professional Heavy Duty Specification – 250W, Stroke rate: 12000 min ⁻¹ /rpm, Oscillating circuit diameter: 2.5mm, Standing plate dimension: 125mm Operations – Sanding
27	Jig Saw Portable	Sept.	Brand – Bosch Model – GST 85 PBE Professional Heavy Duty Specification – 580W, Stroke rate: 500-3100 min ⁻¹ / rpm, Stroke length: 26mm, Max. cutting depth: 85/10/20mm Operations – Cutting Material: Wood, Metal and Aluminium
28	Hammer Drill Wired		Brand – Bosch Model – GBH 200 Professional Specification – Rotary Hammer, 550W, Stroke rate: 0-1550 min ⁻¹ , Depth: 20mm. Operations – Drilling
29	Hydraulic Hand Pallet Truck		Brand – Aspirant Specification – Capacity: 2500 kg, Fork Length: 1150 mm, Fork Width: 550 mm, Lowered Fork Height: 85 mm, Lifting Height: 115 mm, Raised Height: 200 mm, Individual Fork Width: 160 mm, Width between Forks: 230 mm, Steering/Load Wheel Tandem: Nylon, Chasis Colour: Yellow
30	M.S. Platform Trolley		Brand – Aspirant Model – ASPT-10 Specification – Capacity: 1000 kg, Size: 600 mm x 900 mm, Platform Thickness: 5 mm, Wheels: Nylon, 02 swivel with brakes, 02 fixed.







	Mechanical - Metal/Wood Working Facility			
Sr. No.	Equipment Name	Image	Equipment Detail	
31	Vacuum Extractor		Brand - Bosch Model - Professional Gas 15L Specification – 15L, 1100W, 220 mbar, 33 ltr/sec. Operations – Vaccum cleaning.	
32	Industrial Pallet (02 nos)		Brand – Aspirant Model – SIP-P4-0805FP Specification – 4 Way Entry Non Reversible One Piece Molded Heavy Duty Steel reinforced Plastic Pallet with 09 Legs & Flat Antiskid Top Suitable for Ground Storage Application, Made up from Food Grade Polyethylene Material, L-800 mm, W-500 mm, H - 150 mm, Load Capacity in Kg: Static: 3000, Dynamic: 750, Colour: Orange	
33	Industrial Pallet (02 nos)		Brand – Aspirant Model – SIP-P4-0805FP Specification – 4 Way Entry Non Reversible One Piece Molded Heavy Duty Steel reinforced Plastic Pallet with 09 Legs & Flat Antiskid Top Suitable for Ground Storage Application, Made up from Food Grade Polyethylene Material, L-1000 mm, W-800 mm, H - 150 mm, Load Capacity in Kg: Static: 4000, Dynamic: 1000, Colour: Blue	
34	Spray Gun		Brand – Pilot Model – Type-59 Specification – GUN- 1 No., Cup- 1 No., Hose Cupling- 1 No.	
35	Gas Welding Torch with welding electrodes		Brand - ASI Model – 1710 Specification – Welding mild steel from 0.6mm to 8 mm Operation – Welding	
36	Portable Grinder		Brand – Bosch Model – GWS 14-125 CI Specification – 1400W, Disc diameter: 125mm, Spindle thread: M14, Speed: 11000 min ⁻¹ /rpm Operations – Grinding	
37	Metal Cut-off Saw		Brand – Bosch Model – GCO-220 Specification – 2200W	
38	Angle plate		Brand: AGAR Tools Model: 302 Specification: 100 x 125 x112mm	
39	Allen Set (5 Nos)		Brand – Taparia Model – KM9V Specification – Size 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10 mm. Operations – Screw tightening and loosing.	
40	Taps and dies		Brand – Humma Specification – 6mm-12mm Operation - Threading	
41	File Swiss type		Brand - JK Super Drive Needle Files Model - Steel File B Specification - Swiss type needle set of 12, 16 C/m, Shapte Cut Assorted 0/2, Size: 160 mm Operation - Filing	
42	Oil Stone		Brand - Prima Specification - 15 cm x 5 cm x 2.5 cm Operation - Lubricating	







Mechanical - Metal/Wood Working Facility

Equipment Detail

Image

31.140.	Equipment Name	iiiage	Equipment Detail
43	Box spanner		Brand - Taparia Model - S22MXL-2029 Specification - set of 11 sockets plus 4 accessories
44	Spanner	THE STATE OF THE S	Brand - Stanley Model - 70-380E Specification - D.E. 6 -26 mm, Set of 12 pcs Double Open End Spanner
45	Toolmaker Clamp		Brand - Samrat Specification -50 mm
46	Toolmaker Clamp		Brand – Bharat Model: 412 Specification –Size 3 in.
47	Clamp "C" 5 cm		Brand – Taparia Model: 1259-2 Specification –5cm
48	Clamp "C" 10 cm		Brand – Taparia Model: 1261-4 Specification –10cm
49	Scraper flat		Brand – Bharat Tools Specification –Flat, 15 cm Operations – Scrapping
50	Scraper triangular		Brand – Bharat Tools Specification –Triangular, 15 cm Operations – Scrapping
51	Scraper half round		Brand – Bharat Tools Specification –Half round, 15 cm Operations – Scrapping
52	Chisel cold 19 mm flat		Brand – Taparia Model - 101 Specification –19mm flat Operations – Chisel
53	Tennon Saw	SPECAR S JACKSON POSSESSANDER P	Brand – Sangam Specification- 30cm
54	Hand hammer	STANLEY	Brand – Stanley Model – 54-111 Specification – 340g/12oz, Hickory Handle Operations – Hammering
55	Hacksaw frame fixed 30 cm.	3	Brand – Netco Tools Model – RHF-50 Specification – Plastic Handle, 30cm Operations – Cutting
56	Mallet	STANLEY + 5	Brand – Stanley Model – STHT57528-8 Specification – 680g/24oz. Operations – Hammering
57	Straight Grinder		Brand – Bosch Model – GGS 28 LCE Specification – 650W, Max. Grinding Tool Diameter: 50mm, Spindle Collar Diameter: 43 mm Operations – Grinder



Sr. No.

Equipment Name





Mechanical - Metal/Wood Working Facility				
Sr. No.	Equipment Name	Image	Equipment Detail	
58	File		Brand - Taparia Model - 132, 134 Specification — warding 15 cm smooth, knife edge 15 cm smooth, cut saw 15 cm smooth, feather edge 15 cm smooth, triangular 15 cm smooth, round 20 cm second cut, square 15 cm second cut, square 25 cm second cut, triangular 20 cm second cut, flat 30 cm second cut, flat 20 cm bastard, flat 30 cm bastard, half round 25 cm second cut, Card file	
59	Blow Lamp		Brand - Primas Specification - 500ml	
60	Surface Plate	RE	Brand - Luthra Surface Plate Model - NA Specification - 45cm × 45cm Granite. Operations - Levelling. Materials - Metals.	
61	Handy Tools		Magnifying Glass (7cm), Screwdriver Kit (Set of 7), Plier (165mm, plier with joint cutter), Spanner (adjustable 15 cm), Clamping Kit.	











