

Prayas Centre Name PRAYAS LAB DST PRAYAS SHALA

City IIIT HYDERABAD

State TELANGANA

Fablab Page Link <https://cie.iiit.ac.in/prayas-lab/>

Equipment available at PRAYAS LAB DST PRAYAS Shala

Section		Prototyping Facility
Sr. No.	Equipment Name	Equipment detail
1	3D Printer 1	<p>Brand - Ultimaker Model - Ultimaker S5 Specification - -Build volume: 330 x 240 x 300 mm, Max layer resolution - 50 microns, XY positioning precision - 10 microns, Z positioning precision - 5 microns, Print speed - 30 cm/s, Print technology- FFF, Filament diameter- 2.85 mm, File supported - *.stl, *.obj and *.3mf, Software support - CURA Operational area – Product development, Manufacturing, End-use parts, Architecture, Education. Support Materials – PLA, ABS, PETG, TPU Link of the user manual -</p>
2	3D Printer 2	<p>Brand – FORM LABS Model – Form 2 Specification – Build volume: 145 x 145 x 175 mm, Max layer resolution – 25 microns, XY positioning precession – 140 microns laser spot, z axis precession- 25 microns, Print Technology- SLA, Material – Photo polymeric Resin, Supported files -*.stl, *.obj, and *. form, Software support – Preform Operational area – Product development, Manufacturing, End-use parts, Architecture, Education, Medical. Link of the user manual -</p>
3	3D Printer 3	<p>Brand - Sinterit Model – Sinterit Lisa Specification - Build volume: 90 x 110 x 130 mm, Max layer resolution – 75 microns, XY positioning precession – 50 microns laser spot, z axis precession- 75 microns, Print Technology- SLS, Material – PA12 and Flex (TPU), Supported files - STL, OBJ, 3DS, FBX, DAE, 3MF, Software support – Sinterit Studio. Operational area – Product development, Manufacturing, End-use parts, Architecture, Education, Medical, Functionality parts. Link of the user manual -</p>
4	3D printer 4	<p>Brand - Cellink Model – Cellink Inkredible Specification - Build volume: 130 x 80 x 50 mm, Max layer resolution – 100 microns, XY positioning precession – 10 microns laser spot, z axis precession- 2.5 microns, Print Technology- Pneumatic-based micro extrusion system, Material – Bio-Ink, Supported files – STL, OBJ, AMF, Software support – Slic3r, Repetier-Host, HeartWare Operational area – Medical Link of the user manual -</p>

Section		
Non-Metal/Metal working Facility		
Sr. No.	Equipment Name	Equipment detail
6	Laser Cutting and Engraving Machine	Brand - Thrilok Model – TIL 1360 Specification - Bed Size: 4*2 feet, Cutting on Nonmetallic Material such as acrylic, rubber, card board, thermacol, paper, leather, plastic, cloth plywood foam sheet, ABS sheet as well as engrave glass, ceramic, marble, granite and anodized plate. Laser Type: Co2 laser, Laser Power: 50W. Operational area – Engineering, Product Development, Manufacturing, Layout Cutting. Link of the user manual -
7	Laser Welding Machine	Brand – Youmier Model – YME-1.5P Specification - laser Type: Nd: Yag, Works on the Conductive materials.
8	Spot Welding	Brand - EPIC Technologies Model - PDS001 Specification - Work material Conductive metals.
9	CNC Milling	Brand - China CNC Zone Model - HY3040. Specifications - 5-axis, 3-axis volume 1.5feet,
10	Mini Lathe (Manual)	Brand - MINI Lathe Model - CJ0618 Specifications - 550W, 100mm Chuck, 2500RPM, Center distance 350mm.
11	Arc Welding	Brand - iBell Model - IBL M250-104

Section		
Power Tool		
Sr. No.	Equipment Name	Equipment detail
12	Angel Grinder	Brand – Stanley Model – STGS9125-IN 900W- 125mm
13	Precision Belt Sander	Brand – FERM Model – EFM1001 400W
14	WET and Dry Grinder	Brand – FERM Model – BGM1021
15	Bench Sander	Brand – FERM Model – BGM1003, 375W
16	Radial Mitre saw	Brand – FERM Model – MSM1036, 1900W- 255mm Cutting wheel
17	Jig Saw	Brand – Black and Decker Model – JSM1014, 710W
18	Circular Saw	Brand – FERM Model – CSM1039, 1200W-185mm
19	Multi Tool	Brand – FERM Model – OTM1007,
20	Combi Tool	Brand – FERM Model – CTM1010, 160W
21	Bench Pillar Drill	Brand – FERM Model – TDM1025, 350W

22	Impact Drill	Brand – FERM Model – PDM1037S, 1050W
23	Chop Saw	Brand – Bosch Model – GCO 220, 2200W- 355mm
24	Angle Polisher	Brand – FERM Model – AGM1084P, 1400W- 180mm
25	Table Saw	Brand – FERM Model – TSM1035, 1500W-210mm
26	Electric Tracker	Brand - FERM Model - ETM1006

Section	Electronic Facility	
Sr. No.	Equipment Name	Equipment detail
27	PCB Prototyping Machine	Brand – Enthu Model – ET-PCB30 Specification – 2-layer fabrication, itching, drilling and cutting, Work Material: copper Clad, Software Used: Eagle, mach3mill, Autoleveller. Operation Area - Electronic industry, Product development, PCB board making. Manual ink -
28	Dynamometer	Brand - RC Benchmark Model - Series 1780, 25kgf 10A, Single Motor. Software Used - RC Benchmark.
29	Oscilloscope	Brand - Tektronix Model - TDS2022C
30	Arbitrary/Function Generator	Brand - Tektronix Model - AFG2021
31	SMD workstation	Brand - QUICK Model - QUICK-900
32	Soldering Station	Brand - Soldron Model - SL-938

Section			Supply & measuring equipment		
Sr. No.	Equipment Name	Equipment detail			
33	Multimeter	Brand - Fluke Model - Fluke-875 Specification - Digital multimeter- Industrial true Rm Digital MM			
34	Vernier Calipers	Brand - Ocean Premium (6"/150 mm)			

Section		Hand tools			
Sr. No.	Equipment Name	Sr. No.	Equipment Name		
35	Workbench	38	Stanley Wrench kit		
36	DeWalt Cordless Screwdriver 24V li-ion	39	BAUM 46 pcs Toolkit		
37	Black and Decker CDM1108S 3.6v1.3Ah Li-ion screw driver	40	BAUM 24 pcs Wrench Set		

Section		Measuring Instruments			
Sr. No.	Equipment Name				
41	Measuring Tape 5mts				
42	Steel Rules (15 cm, 30cm, 60cm)				
43	Drafter and L scale				

Section		
Sr. No.	Equipment Name	Equipment detail
44	JUKI Sewing Machine	Brand - Juki Model – DDL-7000A-7 Specification – Stich length 4mm 5,000sti/min, Needle bar stroke: 30.7mm, Amount of lift of the presser foot: manual (5.5mm), By knee lifter (13mm), Forced Lubrication Method, AC Servo motor, 550W. Operation Area - Fashion Industry, Wearable Electronics, Textile Industry.