

Prayas Centre Name JSS STEP

City Noida

State Uttar Pradesh

Fablab Page Link _____

Equipment available at JSS STEP DST PRAYAS Shala

Section	Electronic/Prototyping Facility	
Sr. No.	Equipment Name	Equipment detail
1	3D FDM Printer - Open Platform	<p>Brand - Make3D Model - Pratham 3.0 Specification:</p> <ul style="list-style-type: none"> ● Technology: Fused Deposition Modeling (FDM) ● Operational area (Build Volume): 300 x 300 x 300 mm ● Layer Resolution: 0.08 / 0.1 / 0.2 / 0.3 / 0.4 mm ● Printing Speed: 40 - 120 mm/sec ● Extruder Temperature (Max): 280°C ● Heated bed temperature (Max): 120°C ● Nozzle size: 0.4 mm (standard, E3D type) ● Dimensional Tolerance: ±0.1 mm ● Supported Filament Diameter: 1.75 mm ● Filament Compatibility: PLA, ABS, PETG, TPU, Composites, HIPS, PP, ASA, Carbon-based, and more ● Connectivity: Wi-Fi, SD Card, USB ● Operating Control: Touch Screen Display ● Printer Dimensions: Approximately 800 x 630 x 750 mm ● Printer Weight: About 55 kg ● Power Requirements: 230 V, 50Hz, 240 W <p>Operational area – 300x300x300 Link of the user manual - https://make3d.in/wp-content/uploads/2024/07/Pratham-3.0.pdf</p>
2	Composite Printer	<p>Brand - Markforged Model - Mark Two (Gen 2) Specification - Power: 100-240 VAC, 150 W (2 A peak) Connectivity: Wi-Fi (2.4 GHz, 802.11 b/g/n), Ethernet Machine dimensions: 584 x 330 x 355 mm (23 x 13 x 14 in) Printing technology: Fused filament fabrication (FFF) and Continuous Filament Fabrication (CFF)</p>

		<p>Materials: Onyx, Nylon White (plastics); carbon fiber, fiberglass, Kevlar, HSHT fiberglass (fibers)</p> <p>Weight: 16 kg (35 lbs)</p> <p>Operational area – 320 x 132 x 154 mm (12.6 x 5.2 x 6 in)</p> <p>Link of the user manual:</p>
3	3D Printer 3 (Advanced SLA Printer - Mid Size)	<p>Brand: AAD3D400</p> <p>Model: SM400</p> <p>Specification:</p> <p>Technology: Stereolithography (SLA)</p> <p>Accuracy: ±0.1 mm (for parts <100 mm); ±0.1% x L (for parts ≥100 mm)</p> <p>Layer Thickness: 0.05 mm to 0.2 mm</p> <p>Scanning Speed: 6-15 m/s</p> <p>Resin: SoonSer SLA Resin</p> <p>Printing Efficiency: 50-100 g/h</p> <p>Spot Mode: Fixed Spot</p> <p>Equipment Size: 800 x 980 x 1750 mm</p> <p>Equipment Weight: 350 kg</p> <p>Operational area – 400x400x300 mm³</p> <p>Link of the user manual:</p>
4	3D Scanner	<p>Brand- RangeVision</p> <p>Model- IT ScanOne</p> <p>Specification- Scanning Technology: Structured light- Accuracy: Up to 0.04 mm- 3D Resolution: Up to 0.06 mm- Scan Area: Variable sizes for small to large objects- Cameras: 5 MP industrial color cameras- Weight: Approximately 0.7 kg- Operating Temperature: Standard room temperature</p> <p>Operational Area-</p> <p>Suitable for various applications including reverse engineering, quality control, 3D modeling, and art reproduction. It can scan objects ranging from 4 cm to over 1 m in size</p> <p>Link of the user manual: https://www.rangevision.com/manuals</p>
5	CNC Router & Laser Engraving Machine	<p>Brand - Success</p> <p>Model - ES6090(Stepper) Wood Router</p> <p>Specification - Spindle Motor - 3.5 KW (Air cooled)</p> <p>Drive & Motors: STEPPER Motor</p> <p>Operational area – 600mm x 900mm (2ft x 3ft)</p> <p>Link of the user manual</p>
6	Laser Cutting	<p>Brand - Prakash</p> <p>Model - CMA6040</p> <p>Specification -</p> <p>Laser Tube: Co2 sealed glass tube, 80W, Water Cooled</p> <p>220V/50Hz, 3KVA, Single Phase, Phase, High speed DSP controller, Stepper Motor</p> <p>Operational area – 600x400 mm</p> <p>Link of the user manual -</p>
7	Bench/Vertical Drilling Machine	<p>- Brand: Bosch</p> <p>- Model: GBH 220 Professional</p> <p>- Specification:</p> <p>- Power input: 720 W</p>

		<ul style="list-style-type: none"> - Impact energy: 2.0 J - Impact rate: 0–4,800 bpm - Max drilling diameter in concrete: 22 mm - Modes: 3 (hammer drilling, drilling, chiseling) - Chuck type: SDS-plus <p>Operational area – Suitable for drilling and chiseling in concrete, stone, and masonry. Ideal for construction, renovation, and professional DIY applications</p> <p>Link of the user manual - https://www.manua.ls/bosch/gbh-220-professional/manual</p>
8	Polishing Machine- Buffing Machine, Bench Polisher/ Grinder	<p>Brand - Shakti</p> <p>Model - Master Motorised Grinder & Polisher</p>
9	Band Saw Machine (Wood)	<p>Brand - INGCO</p> <p>Model - BAS3502</p> <p>Specification -</p> <ul style="list-style-type: none"> ● Voltage: 220–240V~50Hz ● Input Power: 350W ● Blade Speed: 11.6 m/s ● Max Cutting Depth: 80mm ● Max Cutting Width: 230mm ● Table Size: 300×300mm ● Table Tilt Range: 0°–45° ● Blade Length: 1575mm ● Blade Width: 6.35mm ● Blade Teeth: 6 TPI ● Blade Thickness: 0.3mm <p>Operational area – Ideal for precision wood cutting, DIY carpentry, & light-duty workshop use</p> <p>Link of the user manual- https://www.ingco.com/product/band-saw/BAS3502</p>
10	MIG Welding Machine	<p>Brand - DEWALT</p> <p>Model - MMA260</p> <p>Specification -</p> <ul style="list-style-type: none"> ● MMA/Lift TIG inverter welder ● Rated output: 260 Amps ● Output current range: typically 20-260A for welding applications ● Suitable for rutile, basic, stainless steel, cast iron, and coated electrodes ● Adjustable welding parameters (voltage, current) ● Single & double phase operation with input voltage: 220/380V, frequency: 50/60Hz ● Features: thermal overload protection, rugged and portable construction, anti-sticking, arc force regulation and hot start (typically for MMA series) <p>Operational area –</p>

		<p>Suitable for industrial and workshop welding, garages, DIY projects, fabrication shops, and any application involving steel, stainless, or cast iron repairs</p> <p>Link of the user manual -</p>
11	Arc Welding Machine	<p>Brand - iBELL Model - MA260 Specification -</p> <ul style="list-style-type: none"> ● Type: Digital Personal Body Weight Scale ● Weighing Capacity: Typically up to 180 kg / 400 lbs ● Graduation: 100 g / 0.2 lb ● Display: Large, backlit LCD screen ● Power Source: 1 x 3V CR2032 Lithium Battery (included) ● Platform Material: Tempered Glass ● Auto Features: Auto-On, Auto-Off, Auto-Zero ● Unit Conversion: Switch between kg (kilograms) and lb (pounds) <p>Operational area – Environment: Indoor use only.</p> <p>Surface: Must be placed on a firm, flat, and hard horizontal surface (e.g., hard floor, tile). Avoid soft or carpeted surfaces for accurate readings.</p> <p>Temperature: Standard room temperature.</p> <p>Link of the user manual -</p>
12	Wood Working Basic Spiral Lathe machine	<p>Brand - VOLTZ Model - WL-2.0 Specification-</p> <p>Product Type: True Wireless Stereo (TWS) Earbuds / Bluetooth Headset Bluetooth Version: V5.0 or V5.1 (Common for this model) Playback Time: Approximately 3-4 hours per charge (with 2-3 additional charges from the charging case) Charging Case: Lithium-ion battery, charged via Micro-USB or possibly USB-C Driver Size: 10mm - 13mm dynamic drivers Features: Touch controls, Auto Pairing, Voice Assistant support, IPX4 Water Resistance (sweat and splash proof)</p> <p>Operational area – Approximately 10 meters (33 feet) from the connected device</p> <p>Link of the user manual -</p>
13	Chop Saw Machine	<p>Brand - Spear Model - SP-DH355 Specification -</p> <ul style="list-style-type: none"> - Rated Power: 3200 W - No Load Speed: 3900 RPM - Blade Diameter: 355 mm - Voltage: 220 V - Frequency: 50 Hz <p>Operational area – - Suitable for metal cutting, construction sites, industrial workshops, and heavy-duty fabrication tasks</p>

		Link of the user manual -
14	Table Saw (Wood)	Brand - Stanley Model - SST1801 Specification - Operational area – Link of the user manual -
15	Laser Printer	Brand: Brother Model: DCP-L2541DW Specification: <ul style="list-style-type: none"> ● Type: Monochrome (Black & White) Laser Multi-Function Printer ● Functions: Print, Copy, Scan ● Print Speed: Up to 30 pages per minute ● Print Resolution: Up to 2400 x 600 dpi ● Automatic Document Feeder (ADF): Yes, 35-sheets ● Connectivity: High-Speed USB 2.0, Wireless LAN (Wi-Fi), Wi-Fi Direct ● Duplex Printing: Automatic (2-sided printing) ● Standard Paper Capacity: 250 sheets ● Display: Monochrome LCD text display ● Recommended Monthly Volume: 750 to 3,000 pages Operational Area: Printing with Compact design for space-saving, wireless printing for flexibility, efficient for high-volume text documents
16	Dehumidifier	Brand- HINISO Model- 22 L Smart WiFi Dehumidifier Specification- Daily moisture removal capacity: 22 liters- Water tank capacity: 5.5 liters- Coverage area: up to 4500 sq. ft.- Features: WiFi connectivity, UV-C sterilization, air ionization, auto defrost, timer, and ultra-quiet operation (42 dB) Operational area- Suitable for large spaces such as bedrooms, basements, offices, kitchens, and bathrooms Link of the user manual - https://www.hiniso.in/manuals

Section		
Metalworking Facility		
Sr. No.	Equipment Name	Equipment detail
17	Ultrasonic Plastic Welding Machine	Brand - BSM Model - Ultrasonic caps 25260708 Specification: <ul style="list-style-type: none"> ● Ultrasonic sealing technology ● High-frequency vibration for precision capping ● Compatible with plastic and composite caps ● Power: Typically ranges between 200–500 W (exact model specs may vary) ● Voltage: 220 V, 50 Hz ● Compact design for integration into automated lines - Ideal for pharmaceutical, cosmetic, and food packaging industries

		<p>- Used in automated bottling lines, lab-scale packaging setups, and quality control environments</p> <p>Operational area – Link of the user manual -</p>
18	Turning Lathe Machine	<p>Brand - Model - Specification - Height of centers 150 mm Swing over Bed 300 mm Swing over side 160 mm Width of Bed 180 mm Spindle Bore 20 Spindle Nose M.T 3 Spindle Speed No. 9 RPM 40-1200 Cross Slide travel 175 Top Slide travel No Tailstock Sleeve M.T.3 Quill Dia./Travel 40 Tool Shank Section 20 x 20 mm Feeds Longitudinal 60/0.08-1 Feeds Transverse 60/0.02-0.25 Metric thread 40/0.4-7 mm Thread Per Inch 40/70-4 TPI Lead Screw 4 TPI Main Motor 0.5HP Admit Between Center 500 Bed Length Feet 3.2' Weight (Kg.) Appro. 170</p> <p>Operational area – Link of the user manual -</p>
19	End Mill Resharpener Machine	<p>Brand - PosenPro Model - PPMS65 Specification - Rated Voltage: 220V-240V ~50/60Hz</p> <p>Rated Power: 65W</p> <p>No-load Speed: 6700rpm</p> <p>Wheel Diameter: 51mm</p> <p>Drill Diameter: 3-13mm</p> <p>Chisel & Plane Blade Width: 6-51mm</p> <p>Material: Nylon/ABS plastic</p>

		Color: Dark Green Operational area – 15.2 x 14.3 x 11.8 cm; 1.4 kg Link of the user manual -
20	Benchwise	

Section		Power Tool
Sr. No.	Equipment Name	Equipment detail
21	Wood Working Machine (Thickness Planers)	Brand - DeWALT Model - DW733 2024 29-RU 046080 Specifications <ul style="list-style-type: none"> ● Power Input: 1800 Watts ● ● Power Output: 1000 Watts ● ● No Load Speed: 10000 rpm ● ● Max. Planing Width (Capacity): 317 mm ● ● Max. Planing Depth: 2 mm ● ● Max. Thicknesser Height (Capacity): 152 mm ● ● Feed Rate: 8 m/min ● ● Weight: 33.6 kg Dimensions (Depth x Height): 310 mm x 445 mm
22	Electric Screw Driver	Brand - AKARI Model - APT-SD-LED T-61
23	Heat Gun	Brand - AKARI Model - APT-HG-2500 T-82
24	Air Blower	Brand - XTRA-Power Model - XPT440
25	Hand Grinder	Brand - INGCO Model - CAGL21154

Section		Supply & measuring equipment
Sr. No.	Equipment Name	Equipment detail
26	Digital Multimeter	Brand - Mastech Model - MAS830L

27	Digital Clamp Meter	Brand - Mastech Model - M266
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Section		Hand tools	
Sr. No.	Equipment Name	Sr. No.	Equipment Name
28	Makita Make Hand Held - Orbital Sander Machine (Wood)	31	Component Organizer
29	Pliers & Finishing Tool Kit Files-Half round,flat and Round file-5 inch Needle file, JK file,Diamond file, Emery papers(150, 220, 400, 800, 1000 Chissel, Tweezer, Knife, Bond (Adhesive)	32	Electronic Components Includes Raspberry Pi, motors, sensors, capacitors, wheels, etc.
30	Assembly Tool	33	PCB Holding Stand Specification - For soldering/repair support

Section		Measuring Instruments	
Sr. No.	Equipment Name		
34	Slip Gauge		
35	Height Gauge		
36	Digital Vernier Calliper		
37	Digital MicroMeter		
38	Microscope and Microscope Slide		
39	Sprit Level		

Section		BioLab Facility	
Sr. No.	Equipment Name	Equipment detail	
	N/A	Brand - Model - Specification -	