

**Prayas Centre Name** Guwahati Biotech Park Technology Incubation Centre

**City** Guwahati

**State** Assam

**Fablab Page Link:** <https://www.guwahatibiotechpark.com/nidhiprayas/>

**Equipment available at Guwahati Biotech Park Technology Incubation Centre PRAYASShala**

Prototyping Facility		
S.No	Equipment Name	Equipment detail
1	<p>3D Printer with material station</p> 	<p>Brand- Ultimaker</p> <p>Model- Ultimaker S7 Pro Bundle</p> <p>Specification- Build Volume: 330 x 240 x 300 mm, Print Technology: Fused Deposition Modeling (FDM), Connectivity: USB, Wi-Fi, Ethernet, Touchscreen display Dimensions: Approximately 495 x 590 x 720 mm,</p> <p>Operational area- For making 3D printed Prototyping Models</p> <p>Filament Compatibility- PLA, ABS, Tough PLA, TPU, PETG, PVA</p> <p>Link of User Manual- <a href="https://um-support-files.ultimaker.com/manuals/user-manual/S7/EN-UltiMaker-S7-V1.2.pdf">https://um-support-files.ultimaker.com/manuals/user-manual/S7/EN-UltiMaker-S7-V1.2.pdf</a></p>
2	<p>3D scanner (Handheld and Fixed Mode)</p> 	<p>Brand- EinScan</p> <p>Model- EinScan Pro 2X</p> <p>Specification-Scanning Technology: Structured light and laser scanning, Scan Modes: Auto, Fixed, and Handheld, Accuracy: Up to 0.1 mm, Maximum Scan Size: Up to 4 m x 4 m x 4 m (with fixed mode) Data Output: STL, OBJ, PLY, ASC and P3 Connectivity: USB 3.0 Weight: Approximately 1.1 kg (2.4 lbs) Scan Speed: 10fps to 30fps, Resolution: 0.5mm to 0.2mm Turntable for automated scanning</p> <p>Link of User Manual- <a href="https://www.einscan.com/wp-content/uploads/2020/05/EinScan-Pro-2X-Quick-Guide-1112.pdf">https://www.einscan.com/wp-content/uploads/2020/05/EinScan-Pro-2X-Quick-Guide-1112.pdf</a></p>
3	PCB Prototyping Machine	Brand- Enthru Technology Solutions India Pvt Ltd

		<p><b>Model- PCBMATE 300W</b></p> <p><b>Specification-</b> Resolution: 3.125 Micro Meter  Working Area (mm): 220 x 330 x 120  Minimum Width Line &amp; Space in mm: 0.1 (4 mil)  Max Travel Speed (mm/sec) 58 (2.28 ")  Drilling (mm): 0.2 -3.175 (8-125 mil)  Maximum Drilling Cycles/ Min: 50  Main Axle Power Rate: 300 W  Speed Max working speed: 3500mm/min  Feeding Height: 120 mm  Working drive: 0.02-0.05mm  Repositioning accuracy: 0.01-0.02mm  Supported format: Standard Gerber, DXF, Excellon  Power: 220 V AC</p> <p>Capability of Processing various materials FR4, Copper clad, Acrylic, Metal, RT Duroid, Aluminum and etc.,</p> <p>Link of User Manual- <a href="https://www.enthutech.in/pcbmate-300w">https://www.enthutech.in/pcbmate-300w</a></p>
--	---	---

Measurement and Testing Tools		
S.No	Equipment Name	Equipment detail
4	<p>Mixed Signal Oscilloscope</p> 	<p>Brand- Rigol</p> <p>Model- DS1104Z-PLUS 100 MHz Digital Oscilloscope</p> <p>Specification- Channels: 4 analog channels, plus 16 digital channels (logic analyzer).  Bandwidth: 100 MHz.  Sampling Rate: Up to 1 GSa/s on all channels.  Memory Depth: Up to 12 Mpts per channel.  Display: 7-inch color LCD (800 x 480 pixels).  Waveform Update Rate: Up to 50,000 wfs/s.</p> <p>Link of User Manual- <a href="https://www.rigol-uk.co.uk/pdf/Rigol-DS1000Z-User-Guide.pdf">https://www.rigol-uk.co.uk/pdf/Rigol-DS1000Z-User-Guide.pdf</a></p>
5	<p>Benchtop Digital Multimeter</p> 	<p>Brand- Uni-Trend</p> <p>Model- 8805E Benchtop Digital multimeter</p> <p>Specification- Display: 3.5-inch LCD with backlight.  Display Count: 20,000 counts.  Measurement Categories: CAT III 600V  DC/AC Voltage: 200 mV to 600 V.  DC/AC Current: 200 µA to 10 A.  Resistance: 200 Ω to 20 MΩ.  Capacitance: 20 nF to 100 µF.  Frequency: 10 Hz to 10 MHz.  Data Hold: Yes.  Auto Range: Yes.  Battery Type: 6 x 1.5V AA batteries or AC power supply.</p>

		<p>Dimensions: Compact benchtop design for ease of use. Weight: Approximately 1.5 kg.</p> <p>Link of User Manual- <a href="https://unitrend.oss-cn-hongkong.aliyuncs.com/upload/file/20210618/UT8805E%20User%20Guide.pdf">https://unitrend.oss-cn-hongkong.aliyuncs.com/upload/file/20210618/UT8805E%20User%20Guide.pdf</a></p>
6	<p><b>Power Supply</b></p> 	<p>Brand- Equeptornics</p> <p>Model- EQ-751 EW-753</p> <p>Specification- It works either in constant Voltage or constant Current mode</p> <ul style="list-style-type: none"> <li>· Digital meter to read current and voltage</li> <li>· Fine control of voltage and current</li> <li>· Works on 230V mains</li> <li>· Size: 360 mm (L) x 200 mm (B) x 150 mm (H)</li> <li>· Weight: 4 Kg. (approx)</li> </ul> <p>Link of User Manual-</p>

Drilling Sanding & Polishing Tools		
S.No	Equipment Name	Equipment detail
7	<p><b>Electric Rotary Drill</b></p> 	<p>Brand- BOSCH</p> <p>Model- GSB 500 RE Corded-Electric Drill Tool Set</p> <p>Specification- Power Input: 500 Watts No-load speed: 0 - 2800 RPM Impact Rate: 0 - 44800 BPM Chuck Type: Keyed chuck Chuck Capacity: 1.5 - 13 mm Weight: Approximately 1.8 kg Drilling Capacity: Wood: Up to 25 mm, Steel: Up to 10 mm, Concrete: Up to 13 mm Gear Type: 2-speed gear Cable Length: Approximately 2 meters Lock-On Button: For continuous operation. Safety Clutch: Prevents overload for added safety.</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o347488v21_160992A68A_202011.pdf">https://www.bosch-professional.com/binary/manualsmedia/o347488v21_160992A68A_202011.pdf</a></p>
8	<p><b>Cordless Drill</b></p> 	<p>Brand- BOSCH</p> <p>Model- GSB 120-LI Cordless Impact Drill Driver</p> <p>Specification- Power Source: Cordless (Li-ion battery) Voltage: 12 V Battery Capacity: 2.0 Ah Max Torque: Soft: 20 Nm, Hard: 30 Nm No-load speed: 0 - 350 RPM (1st gear), 0 - 1300 RPM (2nd gear) Impact Rate: Up to 19,500 BPM Chuck Type: 1/2-inch (13 mm) keyless chuck Weight: Approximately 1.3 kg (including battery)</p>

		<p><b>Drilling Capacity: Wood: Up to 19 mm, Steel: Up to 10 mm, Masonry: Up to 10 mm</b></p> <p><b>Gear Type: 2-speed gear</b></p> <p><b>Integrated Battery Level Indicator: To monitor battery status.</b></p> <p><b>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o234914v21_1_609_92A_35K_1512.pdf">https://www.bosch-professional.com/binary/manualsmedia/o234914v21_1_609_92A_35K_1512.pdf</a></b></p>
9	<p><b>Electric Polisher</b></p> 	<p><b>Brand- BOSCH</b></p> <p><b>Model- GPO 950 Heavy Duty Electric Polisher</b></p> <p><b>Specification- Power Input: 950 Watts</b>  <b>No-load Speed: 600 - 3,000 RPM</b>  <b>Disc Diameter: 180 mm</b>  <b>Weight: Approximately 2.5 kg</b>  <b>Power Cord Length: Approximately 2.5 meters</b>  <b>Gear Type: Single-speed gear</b>  <b>Spindle Thread: M14</b>  <b>Constant Electronic Control: Maintains speed under load for consistent results.</b>  <b>Dust Protection: Designed to protect internal components from dust and debris.</b>  <b>Lock-On Switch: For continuous operation, allowing for more comfortable use over extended periods.</b></p> <p><b>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o374554v21_160992A742_202111.pdf">https://www.bosch-professional.com/binary/manualsmedia/o374554v21_160992A742_202111.pdf</a></b></p>
10	<p><b>Cordless Screw Driver, 1/4"</b></p> 	<p><b>Brand- BOSCH</b></p> <p><b>Model- GO 2.0 with Tool kit</b></p> <p><b>Specification- Power Source: Cordless (Li-ion battery)</b>  <b>Voltage: 3.6 V</b>  <b>Torque: Max torque: 5.5 Nm</b>  <b>Speed: No-load speed: Up to 360 RPM</b>  <b>Battery Capacity: 1.5 Ah</b>  <b>Weight: Approximately 0.35 kg</b>  <b>Chuck Type: 1/4-inch hex chuck</b>  <b>Direction Control: Forward/reverse switch</b>  <b>Integrated Battery Level Indicator: To monitor battery status.</b>  <b>Smart Stop Technology: Automatically stops when the screw is fully tightened.</b>  <b>USB Charging: Can be charged via a standard USB cable.</b></p> <p><b>Link of User Manual- <a href="https://media.bosch-pt.co.in/binary/ocsmedia/optimized/full/o362552v21_160992A16M5_202105.pdf">https://media.bosch-pt.co.in/binary/ocsmedia/optimized/full/o362552v21_160992A16M5_202105.pdf</a></b></p>
11	<p><b>Orbit Sander</b></p>	<p><b>Brand- HIKOKI</b></p> <p><b>Model- SV12SGS9Z Orbital Sander</b></p> <p><b>Specification- Power Input: 320 Watts</b></p>

		<p>Orbital Diameter: 2.0 mm  No-load Speed: 12,000 RPM  Sanding Disc Size: 125 mm  Weight: Approximately 1.3 kg  Vibration Level: Low vibration for comfortable use  Power Source: Corded  Dust Bag: Easy-to-empty dust collection bag to keep work area clean.  Variable Speed Control: Allows for adjustment of speed depending on the material being sanded.  Versatile Use: Suitable for sanding wood, metal, and other surfaces.</p> <p>Link of User Manual- <a href="https://www.hikoki-powertools.com/manual_view_export/pdf/C99129513_SV12SG_806.pdf">https://www.hikoki-powertools.com/manual_view_export/pdf/C99129513_SV12SG_806.pdf</a></p>
12	<p>Screw Driver Bits set 46pcs</p> 	<p>Brand- BOSCH</p> <p>Model- Bosch 46 pcs Screwdriver Bit Set</p> <p>Specification- Bit Types:  Phillips (PH), Slotted (SL), Torx (T), Hex (H), Pozidriv (PZ)  Versatile Applications: Suitable for use with manual screwdrivers, drills, and impact drivers.  Durable Construction: Designed to withstand wear and provide reliable performance.</p>
13	<p>Drill Bits and Screw Driver set 70pcs</p> 	<p>Brand- BOSCH</p> <p>Model- X-Line Drill- and Screwdriver Bit Set TiN-coated 70 pieces</p> <p>Specification- Bit Types:  Drill Bits: Includes HSS (High-Speed Steel) bits for metal and wood.  Screwdriver Bits: Various types such as Phillips (PH), Pozidriv (PZ), Torx (T), Slotted (SL), and Hex (H).  TiN Coating: Titanium Nitride coating for enhanced durability and reduced friction, which extends the life of the bits.  Bit Sizes: A range of sizes typically included for both drill and screwdriver bits, catering to various applications.  Versatile Applications: Suitable for use with power drills, impact drivers, and manual screwdrivers.  Easy Identification: Bits are usually labeled for quick identification.</p>
14	<p>Metal Screwdriver Bit and Ratchet Set</p> 	<p>Brand- BOSCH</p> <p>Model- Screwdriver Bit And Ratchet Set, 26 Pieces,</p> <p>Specification- Ratchet Handle: Compact and easy to use, typically with a reversible function.  Screwdriver Bits: Various types and sizes, including, Phillips (PH), Pozidriv (PZ), Torx (T), Slotted (SL), Hex (H)  Bit Sizes: A range of sizes, commonly covering standard dimensions for general applications.  Materials: High-quality steel for durability and strength.  Versatile Applications: Ideal for use in DIY projects, home repairs, and professional applications.  Easy Bit Change: Quick-release mechanism for effortless bit swapping.  Compact Design: The ratchet handle and bits are designed for efficient storage.</p>

Ergonomic Handle: Designed for comfortable grip and ease of use.

### Wood and metal working Tools

S.No	Equipment Name	Equipment detail
15	<p>Electric Jig Saw</p> 	<p>Brand- BOSCH</p> <p>Model- Bosch GST 650 Electric Jigsaw</p> <p>Specification- Power Input: 450 Watts No-load Stroke Rate: 500 - 3,100 strokes per minute Stroke Length: 18 mm Cutting Capacity: Wood: Up to 65 mm, Aluminum: Up to 15 mm, Steel: Up to 6 mm Weight: Approximately 1.6 kg Bevel Cutting: Adjustable up to 45° to the left and right Chuck Type: Tool-less blade change system for easy blade replacement Dust Extraction: Compatible with a dust extraction system for a cleaner workspace Electronic Speed Control: For precise cutting according to material type. Integrated LED Light: Improves visibility of the cutting line. Variable Speed: Allows for adjustment based on cutting material and thickness</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o367651v21_160992A405_202108.pdf">https://www.bosch-professional.com/binary/manualsmedia/o367651v21_160992A405_202108.pdf</a></p>
16	<p>Corded Metal Cutoff/ Chop Saw</p> 	<p>Brand- BOSCH</p> <p>Model- GCO 220 Metal Cut-Off Saw</p> <p>Specification-Power Input: 2200 Watts No-load Speed: 3,800 RPM Cutting Disc Diameter: 355 mm (14 inches) Cutting Capacity: Round Steel:Up to 115 mm, Square Steel: Up to 100 mm, Flat Steel: Up to 150 mm Weight: Approximately 15 kg Safety Features: Adjustable spark guard, Safety switch to prevent accidental start Robust Design: Built for durability and long-lasting performance. Portable: Designed for easy transport and setup at job sites. Dust Protection: Designed to protect internal components from dust and debris.</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o438081v21_160992A8N8_202311.pdf">https://www.bosch-professional.com/binary/manualsmedia/o438081v21_160992A8N8_202311.pdf</a></p>

<p>17</p>	<p>Soldering and Desoldering Unit</p> 	<p>Brand- Soldron</p> <p>Model- soldering station SL938</p> <p>Specification- Power Input: Typically around 60 Watts  Temperature Range: Adjustable from approximately 50°C to 450°C  Heating Element: Ceramic heating element for quick heat-up and stability  Soldering Tip Size: Compatible with various tip sizes for different applications  Control Type: Analog or digital control, depending on the model variant  Air Flow Control: Adjustable air flow for desoldering tasks  Weight: Lightweight design for ease of use  Compact Design: Suitable for workbenches with limited space.  Easy Operation: Simple controls for temperature and air flow adjustments.  Versatile Applications: Ideal for soldering and desoldering components on PCBs and electronic devices.  Safety Features: Includes features to prevent overheating and ensure safe operation</p> <p>Link of User Manual- <a href="https://www.soldron.com/uploads/products/manualpdfs/soldron-936-temperature-controlled-analog-soldering-station-58.pdf">https://www.soldron.com/uploads/products/manualpdfs/soldron-936-temperature-controlled-analog-soldering-station-58.pdf</a></p>
<p>18</p>	<p>Plastic and Metal Straight Grinder, 500watt</p> 	<p>Brand- BOSCH</p> <p>Model- GGS 5000 L Corded Electric Straight Grinder</p> <p>Specification- Power Input: 500 Watts  No-load Speed: 25,000 RPM  Collet Size: 6 mm (1/4 inch)  Weight: Approximately 1.5 kg  Power Cable Length: Approximately 2.5 meters  Ergonomic Design: Slim housing for comfortable grip and control during prolonged use.  Variable Speed Control: Allows for adjustment based on the material and application.  Robust Motor: Ensures reliable performance and longevity.  Dust Protection: Built-in protection against dust and debris to enhance durability.  Versatile Applications: Suitable for grinding, polishing, and sanding various materials.</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o355085v21_160992A45B_202102.pdf">https://www.bosch-professional.com/binary/manualsmedia/o355085v21_160992A45B_202102.pdf</a></p>
<p>19</p>	<p>Alloy Steel Wood Cutting Circular Saw</p> 	<p>Brand- BOSCH</p> <p>Model- GKS 190 Heavy Duty Electric Circular Saw</p> <p>Specification- Power Input: 1400 Watts  No-load Speed: 5,600 RPM  Blade Diameter: 190 mm  Cutting Depth: At 90°: Up to 70 mm, At 45°: Up to 50 mm  Weight: Approximately 4.2 kg  Bevel Capacity: 0° to 45° for versatile cutting angles  Base Plate: Sturdy and durable aluminium base for stability during operation</p>

		<p><b>Dust Blower:</b> Keeps the cutting line clear of debris for improved visibility and precision.</p> <p><b>Spindle Lock:</b> Easy blade changes with a locking mechanism.</p> <p><b>Safety Features:</b> Includes a safety lock and blade guard for secure operation.</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o404098v21_160992A8CB_202211.pdf">https://www.bosch-professional.com/binary/manualsmedia/o404098v21_160992A8CB_202211.pdf</a></p>
20	<p style="text-align: center;"><b>Table Saw</b></p> 	<p><b>Brand-</b> BOSCH</p> <p><b>Model-</b> GTS 254 Professional Table Saw</p> <p><b>Specification-</b> Power Input: 2,000 Watts  No-load Speed: 3,500 RPM  Blade Diameter: 254 mm  Cutting Depth: At 90°: Up to 85 mm, At 45°: Up to 65 mm  Table Size: 640 x 800 mm  Weight: Approximately 30 kg  Bevel Capacity: 0° to 45° for angled cuts  Max Cross Cut: 635 mm at 90°  Integrated Sliding Table: For increased precision in cross-cutting.  Dust Extraction Port: Compatible with dust extraction systems to maintain a clean workspace.  Soft Start: Reduces the initial surge of power to the motor for smoother operation.  Safety Features: Includes a blade guard and riving knife for enhanced safety during operation.</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o387792v21_160992A72J_202204.pdf">https://www.bosch-professional.com/binary/manualsmedia/o387792v21_160992A72J_202204.pdf</a></p>
21	<p style="text-align: center;"><b>Wet and Dry Duty Vacuum Cleaner</b></p> 	<p><b>Brand-</b> BOSCH</p> <p><b>Model-</b> GAS 35 L SFC+ Heavy Duty Corded Electric Vacuum Cleaner</p> <p><b>Specification-</b> Power Input: 1,400 Watts  Airflow Rate: 74 liters per second  Container Volume: 35 liters  Weight: Approximately 12 kg  Filter Type: HEPA filter  Cable Length: Approximately 4 meters  Hose Length: 3.5 meters  Wet and Dry Vacuuming: Capable of handling both liquids and solids for versatile use.  Integrated Power Socket: Allows for direct connection of power tools with automatic on/off function.  Durable Construction: Robust design for professional use in construction and workshop environments.  Compact Design: Easy to transport and store while providing a large capacity.</p> <p>Link of User Manual- <a href="https://www.bosch-professional.com/binary/manualsmedia/o452804v21_160992A98U_202402.pdf">https://www.bosch-professional.com/binary/manualsmedia/o452804v21_160992A98U_202402.pdf</a></p>