

Prayas Centre Name International Centre for Entrepreneurship and Technology

City Ahmedabad

State Gujarat

Fablab Page Link <https://www.icreate.org.in/workshops>

Equipment available at iCreate DST PRAYAS Shala

Section	Electronic/Prototyping Facility	
Sr. No.	Equipment Name	Equipment detail
1	High Precision battery Watt meter	Brand - Robokits Model – 150A Specification – High precision watt meter and power analyzer up to 150 A Operational area – Watt measurement Link of the user manual - https://thinkrobotics.in/products/build-powercurrent-analyzer-150a?variant=33146115981398&utm_medium=product_sync&utm_source=google&utm_content=sag_organic&utm_campaign=sag_organic&gclid=Cj0KCQjw-NaJBhDsARIsAAja6dNoGsFn1g_za89PrdlEd0EnGC4CHkmlvu1vjj_QbUkeLt_PCXulyYaAgFDEALw_wcB
2	Infrared thermometer	Brand - Fluke Model – 62Max+ Specification – Dust and water resistance, 3-meter drop tested, Precise laser technology Operational area – To measure the temperature Link of the user manual - https://docs.rsonline.com/7e33/0900766b810cab67.pdf

3	Infra red Camera	<p>Brand - Fluke Model – TiS10 Specification – Fixed focus, D:S of 128:1, 3.5-inch Display, 5megapixel camera, 4 GB internal memory Operational area – To measure the temperature Link of the user manual - https://www.instrumart.com/assets/Fluke-Tis75man.pdf</p>
4	Cable Identification System	<p>Brand - Fluke Model – Fluke 2042 Specification – For all applications live or dead cables, includes transmitter and receiver, LCD display, auto power off. Operational area – To locate live and dead power lines inside the walls and ground. Link of the user manual - https://www.fluke.com/en-in/product/electricaltesting/basic-testers/fluke-2042</p>
5	Ultimaker 3D Printer for rapid prototype	<p>Brand – Think 3D Model – Ultimaker Extended + 2 Specification - Printing. Build volume: 223 x 223 x 305 mm. Speed and precision: Print speed: 300mm/s – 300 mm/s. Temperature: Nozzle temperature: 180 – 260 °C. Operational area – For making 3D printed Prototyping Models Link of the user manual - https://support.ultimaker.com/hc/enus/articles/360011811480-The-Ultimaker-2-user-manuals</p>
6	Rapid Prototype System	<p>Brand – Think 3D Model – Lulzbot taz 6 Specification - Print Volume Dimensions 280 mm x 280 mm x 250 mm, Dual head. Operational area – For making 3D printed Prototyping Models Link of the user manual - https://www.lulzbot.com/store/printers/lulzbot-taz-6</p>
7	PCB Printing, Drilling and Engraving Machines	<p>Brand – Enthue Model – ETS PCB MATE Specification – Working area: 220x330 mm², Minimum drill hole size: 0.2 mm, Minimum trace: 0.4mm Usage: To fabricate custom circuit boards by creating precise conductive paths, holes, and engravings that enable innovators to rapidly prototype and test their electronic designs. Link of User Manual – https://www.enthutech.in/pcbmate-300w</p>

8	Reflow Oven	Brand – Enthutech Model – ETS - 962 Specification – Temperature range: 0 – 280 degree C, Max. soldering area: 180x235 Usage: To solder surface-mount components onto printed circuit boards by evenly heating solder paste until it melts and bonds the components securely. Link of User Manual – https://www.enthutech.in/reflow-oven-t962a
9	VGA Magnifier Video Microscope for PCB Motherboard Repair	Brand – Hitsan Incorporation Model - Dhruv Pro LCD Microscope 1-600X Specification – 1-600x3.6 MP Camera, 4.3” HD display, Video recording Usage - To enlarge and inspect fine details on printed circuit boards and electronic components, enabling innovators to perform precise soldering, assembly, and quality checks during prototyping.
10	EinScan Pro 2X - 3D scanner	Brand –Think3D Model – Einscan Pro 2X Specification –Scanning the object for prototype development and makes 3D model in the software Link of User Manual – https://www.einscan.com/wp-content/uploads/2020/05/EinScan-Pro-2X-Quick-Guide-1112.pdf
11	ADC/DA Converter units	Brand – Mouser Model – LMP92001EVAL/NOPB Specification – ADC/DAC converter Link of User Manual –
12	FPGA Kit	Brand – Spartan Model – 3S500E-B XILINK Specification – LCD screen and other accessories Link of User Manual –

Section		
Metalworking Facility		
Sr. No.	Equipment Name	Equipment detail

13	Pedestal Grinder	Brand - Bhavya Model - YGBS-150 Specification – 0.75HP, 2800 RPM, with 8"x1" wheel size Operational area – For Grinding the metal and non-metal job works to make them smooth. Link of the user manual -
14	Belt & Disc Sander Machine	Brand – Spark Solution Model – BDS-1445 Specification – Single phase motor with 1445 RPM Operational area – For fine grinding for wood and soft metal job works.Link of the user manual -
15	Jig Saw Machine	Brand – Spark Solution Model - Model - JSS-1625 Specification – Single Phase Motor with 1625 RPM Operational area – To Cut the designs on thin metal sheets, plywood and plastic sheets. Link of the user manual -
16	Drill bit resharper	Brand - Bhavya Model – R-13D Specification – It can sharpen the drill bit with accurate angle. Operational area – to sharpen the drill bits Link of the user manual -
17	Hacksaw Machine	Brand - Bhavya Model – BFH-8 Specification – Blade size 14x5/4 inch Operational area – to cut the solid metal rods and pipes Link of the user manual -
18	Spot Welding Machine	Brand - Bhavya Model - Select Specification – 10KVA capacity Operational area – To welding the thin plates of metals Link of the user manual -
19	Air compressor 150L	Brand - Bhavya Model – BE 30T Specification – 150-liter capacity with auto switch and pressure indication Operational area – to supply the air to machines Link of the user manual -
20	Screw tap resharper	Brand - Bhavya Model – MR-Y3C Specification – Sharpening accurately at lower cost. Easy to operate, no experience necessary. Uses a diamond wheel and DC motor. Bearing shaft and locking unit. Operational area – To sharpen the tap set with angle. Link of the user manual - https://www.amazon.com/MRCM-SharpenerSharpening-Machine-Grinding/dp/B07GPDM1MQ
21	Tig Welding Machine	Brand - Bhavya Model – PROTIG315I PULSE Specification - Rated Voltage - 220V (single-phase)

		<p>Rated Input Capacity - ~12 KVA No Load Output Voltage - 45 V Output Current Range - 20–300 A Duty Cycle - 60% at full load Rated Output Voltage - 18 V Welding Modes - AC/DC TIG (Pulse), MMA/Stick Welding Thickness (ARC) - 2.0–4.0 mm Welding Thickness (TIG) - 2.0–3.2 mm Phase - Single-phase Standard Accessories - Electrode holder, ground clamp, TIG torch, argon regulator Operational area – To welding MS job works.</p>
22	Curved Chamfer Machine	<p>Brand - Bhavya Model – MR-R800B Specification - Operational area – To chamfer the edges of wood, Aluminium and MS material job works. Link of the user manual -</p>
23	Welding Machine Arc + MiG	<p>Brand - Bhavya Model – INVERMIG-350W Specification – With pulse generating. Operational area – For MS, SS and Aluminium welding with argon gas arc. Link of the user manual -</p>
24	Radial Drill Machine	<p>Brand - Bhavya Model – BR-40BA Specification – 1440 RPM. Operational area – For drilling in the job work. Link of the user manual -</p>
25	Vertical Turret Milling Machine	<p>Brand - Bhavya Model – M3 Specification – 1270x254mm with NT-30 Spindle with all Std. Operational area – For Slotting in the job work and cutting. Link of the user manual -</p>
26	Plasma cutting machine	<p>Brand - Hypertherm Model – Power MAX 65 Specification – cutting capacity up to 25mm max current rating is 65 A. Operational area – To cutting the design jobs in 2D. Link of the user manual - https://www.google.com/search?q=hypertherm+powermax+65+manual&rlz=1C1CHBD_enIN856IN856&ei=oO41YYNu8MHctQ-U6YiQDg&oq=hypertherm+powermax+65+&gs_lcp=Cgdnd3Mtd2l6EAEYADIECAAQzIHCAAQyQMzIECAAQzIECAAQzIECAAQzIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEOgciABBHELADOGciABCwAxBD0hMILhDHARDRAxDIAxCwAxBDEJMC0hAILhDHARDRAxDIAxCwAxBDSgUIOBIBMUoECEEYAFDsJFjsJGD7L2gBcAJ4AIAB6gGIAeoBkgEDMi0xmAEAoAEBByAELwAEB&sclient=gws-wiz</p>
27	CNC Lathe Machine	<p>Brand - Bhavya Model – CK6140B HL Specification – Max. Diameter 400mm, Processing length 1000mm, X&Y axis Operational area – For turning, parting, threading, boring, cutting, cylindrical job works. Link of the user manual -</p>

28	Thermal conductivity	Brand – Raj Enterprises Model – Thermal Conductivity of Liquid Specification – Can used to identify thermal conductivity of any liquid Link of User Manual –
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Section	Power Tool	
Sr. No.	Equipment Name	Equipment detail
29	Bosch Hammer Drill Machine	Brand - Bosch Model -M/C GBH 200 Usage - Functions Rotary drilling, hammer drilling, chiseling Special Features Reverse rotation, variable speed, compact design
30	Dremel 4000 Multi toolset	Brand - Dremel Model -4000 – 4/65
31	Dremel 4000 Multi toolset	Brand – Dremel Model – Accessories
32	Low-cost solder suction kit	Brand – Quick Model – Desolder Pump Specification – Manual solder suction tool. Operational area – For PCB rework.
33	Chain pullet block for 1 ton weight	Brand – General Industrial Model – 1 Ton Manual Specification – Manual chain pulley block with 1-ton capacity. Operational area – For lifting heavy equipment.

Section	Supply & measuring equipment	
Sr. No.	Equipment Name	Equipment detail
34	Fluke Palm-sized Digital Multimeter	Brand - Fluke Model – Fluke 106 Specification – Data hold, Voltage, resistance, continuity, capacitance, 10A current measurement.
35	Fluke AC/DC Clamp Meter	Brand - Fluke Model – Fluke 376 Specification – Flexible current probe for 2500A current measurement, CAT IV 600V, CAT III 1000V, True RMS voltage and current, filter out noise.
36	Oscilloscope	Brand - Tektronix Model – TBS 1072B-EDU Specification – 70MHz, 1GS/s, 2 Channels, 7-inch TFT display, 2.5K points record length, input sensitivity range: 2mV to 5V/div, Max input voltage: 300 VRMS

		Usage: Used to visualize and analyze electrical signals in real time, helping innovators observe waveform shape, amplitude, and timing to debug and validate their prototypes.
37	Arbitrary waveform generator	Brand - Tektronix Model – AFG1062 Specification – 60MHz sine waveforms, 30MHz square waveforms, 14bits, 300MS/s arbitrary waveforms, amplitude 1mVp-p to 10Vp-p into 50-ohm loads. Usage: Circuit Testing & Troubleshooting Provides known signals to test how circuits respond, helping engineers identify faults. Communication Systems Generates modulated signals for simulating and analyzing transmission and reception. Signal Processing Research Supplies precise input signals for experiments in filters, amplifiers, and digital systems.
38	USB Spectrum analyzer	Brand - Tektronix Model – RSA306B Specification -9KHz to 6.2 GHz frequency range, +20 dBm to -160 dBm Measurement range.
39	Mixed Domain Oscilloscope	Brand - Tektronix Model – MDO3014 Specification – 100MHz, 4 Analog channel, 100MHz Spectrum Analyser
40	Variable power supplies	Brand – Skyking Model – 3010 Specification – 30V, 10A adjustable power supply
41	Clamp Meter	Brand – Fluke Model – 302+ Specification – Digital meter for current and voltage measurement. Operational area – For electrical testing.
42	Multimeter	Brand – Fluke Model – 15B+ Specification – DC Voltage range: 0v to 1000V AC Voltage range: 0v to 750V DC current range: 0A to 10A AC current range: 0A to 10A other parameters are Resistance, Capacitance, Frequency, Continuity, Connections: RS-232, USB Device, USB Host, Ext.Trig., VM Comp. Operational Area: To measure and monitor key electrical parameters—voltage, current, and resistance—during prototype development and testing.
43	Thermal Imager	Brand – Fluke Model – VT04A Specification – To measure the temperature and can be recorded
44	Raspberry Pi 4	Brand – Raspberry Pi Model – 4B 4GB Specification – Single-board computer with quad-core processor. Operational area – For embedded and IoT development.

Section	Hand tools
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Sr. No.	Equipment Name	Equipment detail
45	Tap set from 1mm to 13mm	Brand Name: Bhavya Model – Metric Tap Set Specification – Tap set for internal threading. Operational area – For threading holes.
46	Drill Stand Convert hand	Brand – General Industrial Model – Drill Stand Specification – Stand to convert hand drill into bench drill. Operational area – For stable vertical drilling.
47	Bench Tapping Machine - SWJ - 14	Brand Name : Bhavya Machine Tools Specification Brand – Bhavya Model – Bench Type Specification – Maximum Tapping Diameter M14 mm Spindle Travel 38 mm Morse Short Taper of Spindle B16 Column Diameter 50 mm Worktable Size 240 × 240 mm Max. Distance Spindle to Table 220 mm Max. Distance Spindle to Base 320 mm Worktable Base Size 180 × 200 mm Spindle Speed 260, 440, 750 RPM Motor Power 0.5 HP Overall Size 495 × 250 × 825 mm Usage / Operational Area- For tapping threaded holes in metal.
48	Groz Air Operated Grease Gun	Brand – Groz Model – Pneumatic Type Specification – Air operated grease gun. Operational area – For lubrication of machinery.
49	Bench top ESD Safe Smoke Absorber	Brand Name - General Industrial Specification Model – ESD Safe Type Specification – Fume extractor with ESD protection. Usage / Operational Area For soldering smoke removal.
50	T-garage toolbox	Brand – General Industrial Model – Tool Chest Specification – Metal toolbox with compartments. Operational area – For tool storage.
51	Hand driller	Brand – Bosch Model – Electric Type Specification – Portable electric hand drill. Operational area – For drilling applications.
52	Spanner Set-fix type	Model – Fixed Type Set Specification – Fixed spanner set. Operational area – For tightening nuts and bolts.
53	Teflon hammer	Brand – General Industrial Model – Soft Face Type

		Specification – Teflon-faced hammer. Operational area – For non-damaging assembly work.
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Section			Measuring Instruments		
Sr. No.	Equipment Name	Equipment detail			
54	Micrometer	Brand – INSIZE Model – 0–25mm Specification – Precision micrometer with 0.01mm accuracy. Operational area – For fine measurement.			
55	Digital vernier caliper	Brand – INSIZE Model – 0–150mm Specification – Digital caliper with 0.01mm resolution. Operational area – For precision measurement.			
56	MGW Digital Tachometer	Brand – Fluke Model – Non-Contact Type Specification – Digital RPM measuring device. Operational area – For speed measurement of motors.			

Section			Misc tools		
Sr. No.	Equipment Name	Equipment detail			
57	High Configurable Work Station	Specifications: Processor: 12th Gen Intel(R) Core(TM) i9-12900K 3.20 GHz Installed RAM: 32.0 GB (31.8 GB usable) System type: 64-bit operating system, x64-based processor Windows Edition: Windows 11 Pro Windows Version: 21H2 Usage: Computing requirements			
58	Aluminum Ladder for Lab	Brand – General Industrial Model – Foldable Type Specification – Lightweight aluminium ladder with anti-skid steps. Operational area – For maintenance and installation work.			
59	Waterpool Table for Plasma Cutting Machine	Model – Water Table Specification – Water bed support table. Operational area – For plasma cutting operations.			
60	Motor Belt	Brand – General Industrial Specification – Industrial belt for power transmission. Operational area – For motor-driven machines.			
61	Water Pump for cooling of SPOT welding machine(w.r.f item no.25)	Model – Coolant Pump Specification – Continuous-duty water pump. Operational area – For cooling welding electrodes.			
62	Seagate 500GB Barracuda SATA Internal Solid State Drive	Brand – Seagate Model – 500GB SATA SSD Specification – 2.5-inch internal solid-state drive.			

		Operational area – For data storage.
63	Keyshot Pro (design and image rendering software, one time)	Brand: Keyshot Specifications: Design and image rendering software Windows Version Usage: To render the designed prototype
64	Ultrasonic Sensor	Model – Ultrasonic Module Specification – Distance measuring sensor module. Operational area – For robotics and automation.
65	Samsung Mini Desktop - to be used with USB oscilloscope	Brand – Samsung Model – Mini PC Specification – Compact desktop computer. Operational area – For testing and software use.
66	Solidworks Professional 2017	Brand: Solidworks Specifications: Prototype design software Windows OS Version 2017 Usage: To design prototypes.
67	Hydraulic Hand Pallet Truck	Brand – General Industrial Model – 2 Ton Specification – Hydraulic pallet truck for material handling. Operational area – For warehouse lifting.
68	End Mill Cutters	Brand – General Industrial Model – HSS Type Specification – End mill cutters for milling operations. Operational area – For slotting and shaping.
69	HD Wheel	Brand – General Industrial Model – Heavy Duty Type Specification – Heavy-duty grinding wheel. Operational area – For rough grinding.
70	Cutter Inserts	Brand – General Industrial Model – Carbide Type Specification – Replaceable carbide cutting inserts. Operational area – For machining operations.
71	Tool Set - Turning tool, Threading tools, aring Tools, Boring Tools	Brand – General Industrial Model – Lathe Tool Set Specification – Carbide tool set for lathe operations. Operational area – For machining processes.
72	Drill Bit Set	Brand – General Industrial Model – HSS Set Specification – High-speed steel drill bits set. Operational area – For drilling work.
73	Cutting Blades	Brand – General Industrial Model – TCT Type Specification – High-speed cutting blades. Operational area – For material cutting.
74	Laptop, Accessories	Brand: Acer Model: Predator

		Specification – Basic laptop + accessories kit. Operational area – For workstation support.
75	PCB design software	Specification – Software for PCB layout and schematic design. Operational area – For printed circuit board development.