

Sr. No.	Instrument	Specifications
1	Powder Coating Setup	Lab-type powder coating booth with inbuilt power pack and controller. Minimum 2 HP blower with cartridge filter. Electrostatic powder coating gun with 100 kV inbuilt high-voltage generator. Suitable for 230V, 50 Hz power supply. Powder hopper with fluidized bed, minimum 10 kg capacity. 5-meter gun cable and flexible powder pipe. Powder suction pump with good suction capacity. Includes necessary spares and earthing cable. Lab-type powder baking oven with electrical heating and top-mounted hot air circulation blower.
2	3D Printers	Fused Deposition Modeling (FDM) 3D Printer. Build Volume: Minimum 220 mm (X) × 220 mm (Y) × 240 mm (Z). Maximum nozzle temperature: 300°C or higher. Heated build platform. Automatic bed leveling system. Compatible with multiple filament types, including PLA, PETG, ABS, TPU, etc. Power-loss recovery function. Supplied with
3	Hydraulic Press	Electrically operated hydraulic press for punching, bending, notching, shearing, and forming operations. Capacity: 3 to 7 tons. Heavy-duty structural steel frame. Suitable for punching and bending of steel sheets with a thickness between 3 mm and 5 mm. Equipped with a double-acting heavy-duty hydraulic cylinder. Operating pressure: Minimum 150 bar. Supplied with at least one standard tool. Provision for mounting additional tools as required. Guide rods for accurate
4	EV Wiring Harness, IoT & Telematics Training Setup	Training setup for electric vehicle wiring harness configuration and installation. Equipped with 1 kW, 48V BLDC motor, 1000 RPM. Controller: 20-tube, 50 Amp. DC-DC converter: 48V to 12V, 10 Amp. Includes working EV wiring harness system with lighting, indicator, horn, hand throttle, and circuit breaker (10A). Battery meter for data acquisition. IoT kit with voice control features (Alexa enabled) for controlling indicators, lighting, navigation, and other functions.
5	EV Machine & Drives Demonstration & Testing Setup	Training and demonstration workbench for electric vehicle motors and drives used in 2W, 3W, and 4W applications, visual display of motor and controller internal components for educational use, includes BLDC hub motor, BLDC mid motor, PMSM motor 1000W 48V single phase, SRM motor 4000W 48V three phase, induction motor 1000W 48V three phase, compatible motor controllers, external power supply 48V 28Ah, throttle and on/off switch, provision for circuit and component study for
6	2-Wheeler Electric Vehicle Harness and Powertrain Workbench	Training and demonstration platform for electric two-wheelers with open chassis, BLDC hub motor 250W 48V 1000 RPM, DC-DC converter 48V to 12V 10 Amp, external power supply or 48V battery, complete harness with lighting, indicator, horn, circuit breaker, hand throttle, aluminum panel with wiring structure diagram, battery meter for data acquisition, safety and operational switches, includes electric 2W architecture, DC circuit and component study, interactive working components, digital infotainment system for current consumption monitoring under various load conditions, efficiency monitoring of electric 2W hub motor, motor reverse potential study and application of