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# Major Equipment for IDEA Lab

**Existing Facilities**



# Major Equipment for IDEA Lab

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## CNC machines :

- ❖ **Horizontal Turing Centre:** The equipment has a maximum work piece size of 140 mm diameter and 200 mm length. The production-ready machine is equipped with an 8 tool turret and a spindle speed of 4000 rpm with 3.7 kW of power.
- ❖ **Vertical Milling Centre:** The 3 axis VMC is equipped with a work volume of 800 x 400 x 350 mm, 12 tool ATC, and a spindle speed of 6000 rpm with 3.7 kW of power



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## 3D Printers :

**Creality –Ender 3-V2 (9 No's)**

**Creality – CR-X pro (3 No's)**



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## Coordinate Measuring Machine :

**ECLIPSE- Carl Zeiss Make**

<b>Design</b>	Bridge Type
<b>Probe</b>	RDS System
<b>Control</b>	CNC Microprocessor Control (3-Axis)
<b>Measuring Range</b>	700 X 700 X 580
<b>Measure error</b>	2.5 Microns - 250 mm





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## Industrial Automation & Robotics Lab:

- **KUKA Robot** KR - 6 R 700 six with controller (KRC4 compact, SIM pro, KRC4 compact basic cabinet with mounting plate)
- **SCARA Robot** Wit maximum payload of 3 kg
- **Robotic Component Kit**, SIM 900 GSM model, stepper motor, 1 inch 7 segment display, android controller robot, trainer kit box

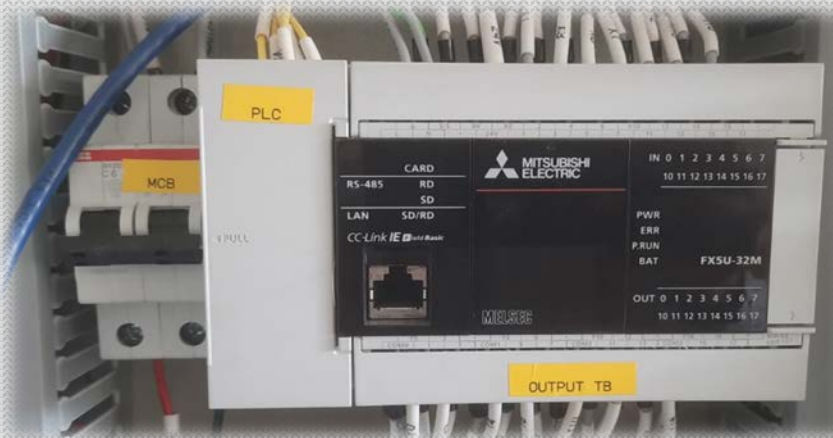


# Major Equipment for IDEA Lab

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## Industrial Control Lab:

- Portable Type Control Logic Board
- PLC Training Kit
- Experimental unit of industrial control and automation using SCADA



# List of Mandatory Equipment for IDEA Lab

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- Laser Cutter
- CNC Router
- 3D Printers
- Desktop Lathe cum Milling
- Drilling M/c I HP Motor
- Handheld High Speed Drilling machine
- Benchtop Grinder Machine
- Solder stations
- Desoldering machine
- Portable Welding M/cs
- Microwave Oven
- Magnifying Glass with Stand
- Digital Microscope
- Mixed Signal Oscilloscope
- Digital Storage Oscilloscope
- Signal Generator
- Variable Power Supply
- Benchtop Multimeter
- Heavy Duty Laser Printer
- PCB Milling Machine
- PCB prototype machine
- Quadcopter assembly kit
- Relay modules
- GPIO Modules