LIST OF MAJOR EQUIPMENTS

VISTAS AICTE IDEA LAB

Established in Collaboration with

AICTE, New Delhi and Industries

In the year 2026

Project Amount Rs. 90,00,000/-

CNC 3 AXIS ROUTER FULL SETUP

3-AXIS CNC ROUTER – SPECIFICATIONS

Working Area: XY 1200 × 1200 mm **Z:** 300 mm

Max Area: XY 1300 × 1300 mm

Spindle Speed: 3000–24000 rpm

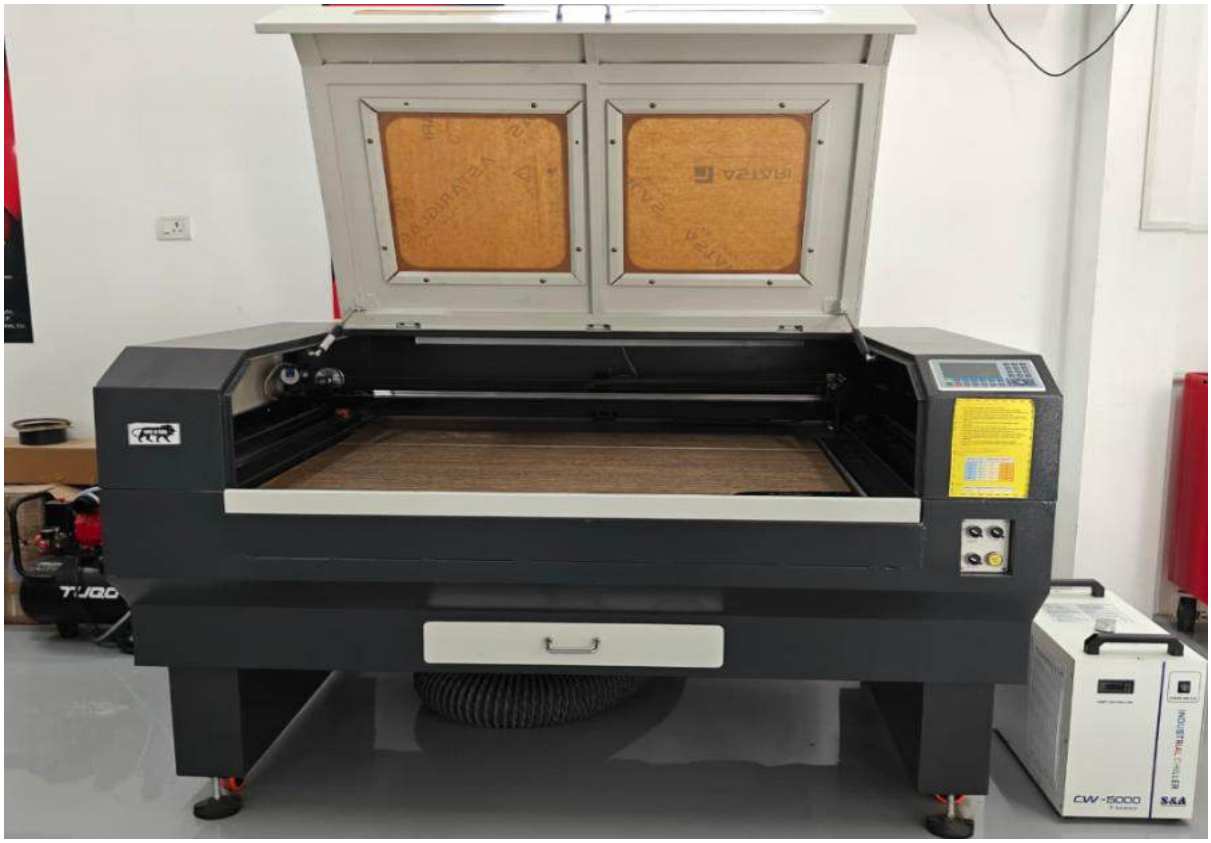
Travel Speed: 8000 mm/min

Position Accuracy: 0.05 mm/300 mm

Repeat Accuracy: 0.015 mm

Material: Timber, Plywood, Acrylic, Plastics, Foam Board, MDF, Carbon Fibre, Fiber Glass, Composites, Etc.

CNC LASER CUTTER FULL SETUP



CO_2 LASER CUTTER – SPECIFICATIONS

Working Area: XY 1300 × 900 mm

Max Area: XY 1300 × 1300 mm

Laser Power: 100W CO_2

Laser Wavelength: 1064 nm

Marking Speed: 500 mm/s

Position Accuracy: 0.05 mm/300 mm

Repeat Accuracy: 0.015 mm

Material: Timber, Plywood, Acrylic, Plastics, Foam Board, MDF, Carbon Fibre, Composites, Glass, Etc.

CNC METAL / PCB MILLING MACHINE FULL SETUP

3-AXIS CNC MILLING – SPECIFICATIONS

Working Area: XY 350 × 350 mm **Z:** 100 mm

Max Area: XY 450 × 450 mm

Spindle Speed: 3000–24000 rpm

Travel Speed: 8000 mm/min

Position Accuracy: 0.05 mm/300 mm

Repeat Accuracy: 0.015 mm

Material: Hard Metals, Soft Metals, Acrylic, Plastics, Carbon Fibre, Stone, Composites, Ceramics, Wood, Etc.

Creality CR-Scan Raptor

Accuracy: Metrology-grade up to 0.02 mm (blue laser mode)

Technology: Hybrid blue laser and Near-Infrared (NIR) structured light

Scanning Speed: Up to 60 fps

Scan Range / Object Size: 5 mm to 2000 mm

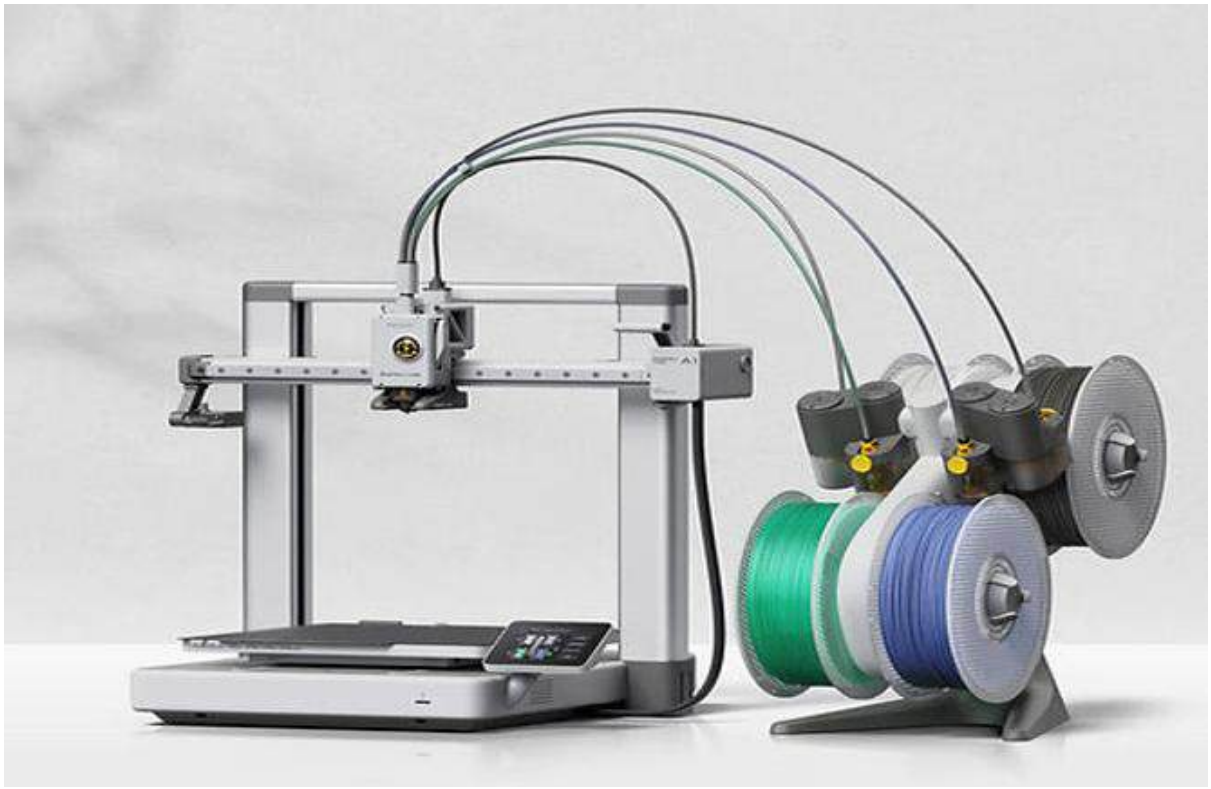
Color Scanning: 24-bit full-color imaging with 12 LED lights

Weight: 372 g

High Configuration Workstations

OS Name	Microsoft Windows 11 Pro
Version	10.0.26200 Build 26200
Other OS Description	Not Available
OS Manufacturer	Microsoft Corporation
System Name	DESKTOP-T06M5UV
System Manufacturer	Micro-Star International Co., Ltd.
System Model	MS-7D88
System Type	x64-based PC
System SKU	Default string
Processor	Intel(R) Core(TM) i7-14700K, 3400 Mhz, 20 Core(s), 28 Logical Processor(s)
BIOS Version/Date	American Megatrends International, LLC. 1.F0, 11-Apr-2025
SMBIOS Version	3.6
Embedded Controller Version	255.255
BIOS Mode	UEFI
BaseBoard Manufacturer	Micro-Star International Co., Ltd.
BaseBoard Product	PRO Z790-S WIFI (MS-7D88)
BaseBoard Version	1.0
Platform Role	Desktop
Secure Boot State	Off
PCR7 Configuration	Elevation Required to View
Windows Directory	C:\WINDOWS
System Directory	C:\WINDOWS\system32
Boot Device	\Device\HarddiskVolume1
Locale	United Kingdom
Hardware Abstraction Layer	Version = "10.0.26100.1"
Username	DESKTOP-T06M5UV\Admin
Time Zone	India Standard Time
Installed Physical Memory (RAM)	32.0 GB
Total Physical Memory	31.7 GB
Available Physical Memory	22.6 GB
Total Virtual Memory	33.7 GB
Available Virtual Memory	22.4 GB
Page File Space	2.00 GB

Bambu Lab A1 FDM type 3D printers



Item		A1 Specification
Body	Build Volume(W*D*H)	256*256*256 mm³
Toolhead	Hot End	All-Metal
	Nozzle	Stainless Steel
	Max Hot End Temperature	300 °C
	Nozzle Diameter	0.4 mm (Included) 0.2 mm, 0.6 mm, 0.8 mm
Heatbed	Build Plate	Bambu Textured PEI Plate (Included) Bambu High Temperature Plate (Smooth PEI) Bambu Cool Plate
	Max Build Plate Temperature	100°C
Speed	Max Speed of Tool Head	500mm/s
	Max Acceleration of Tool Head	10m/s²
Supported Filament	PLA, PETG, TPU, PVA	Ideal
	ABS, ASA, PC, PA, PET, Carbon/Glass Fiber Reinforced Polymer	Not Recommended
Sensors	Chamber Monitoring Camera	Low Frame Rate Camera (Up to 1080P) Timelapse Supported
	Filament Run Out Sensor	Yes
	Filament Odometry	Yes
	Power Loss Recover	Yes
	Filament Tangle Sensor	Yes
Physical Dimensions	A1 : 385*410*430 mm³ , Package size : 552*532*320 mm³ , Net weight 8.3 kg , Gross weight 11.7 kg A1 Combo : Package size 546*536*420 mm³ , Gross weight (AMS lite included) 14.3 kg	

Digital Light Processing type 3D printer

System: Phrozen OS

Operation: 5" in Large Touch Panel

Connectivity: USB | Ethernet | Wi-Fi

Storage: Built-in Memory

Design: Technology Resin 3D Printer - LCD Type

Light Source: Linear ProjectionLED Module

XY Resolution: 28 µm

Layer Thickness: 0.01-0.30 mm

Maximum Printing Speed: 70 mm/hr

Power Requirement: DC 24V;5A

System Power: 120W

Printer Size: 33.7 x 33.7 x 51.6 cm

Print Volume: 21.8 x 12.3 x 23.5 cm

Interactive Display Panel

Panel Size: 75 inch

Resolution: 4K UHD

Operating System: Android

Touch Technology: Infrared

Touch Points: 40 points

Brightness: 400 cd/m²

Connectivity: HDMI, LAN, WiFi, DisplayPort, Bluetooth, OPS Slot, USB

Usage: Training, Boardroom, Classroom

Brand: Neotouch, Model MT75

DIGITAL OSCILLOSCOPE SS-5100 DS 1B

100 MHz Dual Channel D.S.O.

Large 7" (800 x480)

High Res., TFT LCD Display

Sampling Rate : 1 GS/S

High Precision & Reliable Record Length : 4 M Max. / Channel

Specifications

Bandwidth (-3 dB) : DC ~ 100 MHz (Rise Time : ≤ 3.5 nS)

Vertical Deflection : 2 mV / Div. ~ 10 V / Div.

Sweep Time : 100 S ~ 2 nS / Div.

Power : AC 100 ~ 240 V, 50 / 60 Hz

SIGNAL GENERATOR /COUNTER SGDA-30M

Amplitude Sine Wave Frequency ≤ 11 MHz : 2mVpp ~ 20Vpp.

Frequency ≥ 11 MHz : 2mVpp ~ 10Vpp.

Square Wave & Triangle Wave

Frequency ≤ 10 MHz : 2mVpp ~ 20Vpp.

Frequency ≥ 10 MHz : 2mVpp ~ 5Vpp.

Freq. Meas. & M.F.

Counter Frequency Range : 1 Hz ~ 100 MHz.

VRR TECH 3005-3 D2 POWER SUPPLY

MODEL 3005-3 D2

O/P Voltage 0 ~ 30 V x 2 5 V

O/P Current 0 ~ 5 A x 2 3 A

Line Regulation CV : ≤ 0.01% + 3 mV CC : ≤ 0.2% + 3 mA

Load Regulation CV : ≤ 0.01% + 3 mV (I ≤ 3A) ≤ 0.02% + 5 mV (I ≥ 3A)

CC : ≤ 0.2% + 3 mA (I ≤ 3A) ≤ 0.2% + 5 mA (I ≥ 3A)

Ripple & Noise : (≤) rms

CV : 1 mV (I ≤ 3A) / 2 mV (I ≥ 3A)

CC : 3 mA (I ≤ 3A) / 6 mA (I ≥ 3A)