

Fr. Conceicao Rodrigues College of Engineering

Equipment / Facility Details

Name of Department	Mechanical Engineering
Name of Facility / Equipment	3D Printer
Make	Ultimaker
Model	S5
Current Status	Working

Specifications

Sr. No.	Equipment 1
1	Build volume 330 x 240 x 300 mm (13 x 9.4 x 11.8 inches) Assembled dimensions W 495 x D 585 x H 780 mm (W 19.5 x D 23 x H 30.7 inches) Compatible filament diameter 2.85 mm Layer resolution 60 - 400 microns (depending on the print core nozzle size and print profile) XYZ resolution 6.9, 6.9, 2.5 micron Nozzle temperature 180 - 280 °C ABS/PLA Material Available
	Total Quantity: 01

Equipment 1

Working Principle / Methodology of Equipment 1

The **UltiMaker S5** operates on the **Fused Deposition Modeling (FDM)** principle, an additive manufacturing process in which a thermoplastic filament is melted and deposited layer by layer to create a three-dimensional object. The printer supports **dual extrusion**, enabling simultaneous printing of two different materials (e.g., model material and soluble support material).

List of Applications / Usages

1. Proof of Concept Prototype development
2. Small Plastic Components, Working Models

Equipment In-Charge

Equipment	In-Charge Faculty
Equipment 1	Dr. Ketaki Joshi

Technical Staff / Operator

Mr. Santosh Dharman

Pricing / Access Policy (sample is shown below.)

User Category	Charges	Availability
Internal (Mech Dept.)	-	Mon – Fri, Working Sat (working hours) Subject to the feasibility of 3D printing (considering material compatibility, build volume limitations, and design suitability) and approval by the HOD.
Other Departments (within Campus)	-	Mon – Fri, Working Sat (working hours) Subject to the feasibility of 3D printing (considering material compatibility, build volume limitations, and design suitability) and approval by the HOD.
External (Industry / Academia)	As per Institute norms	Mon – Fri, Working Sat (working hours) Subject to the feasibility of 3D printing (considering material compatibility, build volume limitations, and design suitability) and approval by the HOD.