

Stratasys Objet30 Pro Polyjet 3D Printer



Tool Type: 3D Printer
Location: 3430 Elings Hall (CNSI Microfluidics Lab)

| Supervisor | Tool Lead |
|-----------------------|----------------------------|
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Description: Multi-Material 3D Printer
Manufacturer: Stratasys

About

This 3D Printer is a very accurate and versatile tool that can be utilized with different types of printing materials. The printer has two print heads - one prints the structural material for parts, and the other prints a support material. Parts are built on a layer of the support material. Matt finish parts are surrounded in support, and overhanging features are supported with support material during printing. The support material is removed in the water jet station. This is a great tool for accurate and precise models.

Training Documentation

[Objet Training SOP](#)

Detailed Specifications

| | |
|---------------------------------|---|
| Model Materials | Rigid Opaque: VeroWhitePlus™, VeroBlackPlus™, VeroGray™, VeroBlue™ Transparent: VeroClear™ Simulated Polypropylene: Rigur™ and Durus™ High Temperature |
| Support Material | SUP705 gel-like photopolymer support |
| Maximum Build Size (XYZ) | 294 x 192 x 148.6 mm (11.57 x 7.55 x 5.85 in.) |
| System Size and Weight | 82.6 x 60 x 62 cm (32.5 x 23.6 x 24.4 in.); 106 kg (234 lbs.) |
| Resolution | X-axis: 600 dpi; Y-axis: 600 dpi; Z-axis: 900 dpi |
| Accuracy | 0.1 mm (0.0039 in.) varies depending on part geometry, size, orientation, material and post-processing method |
| Minimum Layer Thickness | 28 microns (0.0011 in.); 16 microns for VeroClear material (.0006 in.) |
| Build Modes | High quality: 16-micron (.0006 in.) resolution High speed: 28-micron (.001 in.) resolution |
| Software | Objet Studio™ intuitive 3D printing software |
| OS Compatibility | Windows XP/Windows 7/Windows 8 |
| Network Connectivity | Ethernet TCP/IP 10/100 base T |
| Operating Conditions | Temperature 18-25°C (64-77°F); relative humidity 30-70% |
| Power Requirements | Single phase: 100-120V; 50-60Hz; 7A or 200-240V; 50-60Hz 3.5A |
| Regulatory Compliance | CE, FCC/RoHS |

Safety Concerns

Printer Operation

- The printer should only be operated by persons trained by David or any Workshop Wizard.
- Gloves should be worn when working with the print resins and when cleaning the print heads
- All personnel operating or maintaining the printer should know the location of first aid and emergency equipment and how to use it.
- Never block access to this equipment!
- Keep fingers and other body parts clear of the printer cover when closing it.
- Never attempt to open the main cover of the printer while it is working!
- Never override the interlock safety switch!
- If the interlock safety switches ever fail, do not use the printer.
- Several parts of the printer remain extremely hot even after it has stopped operating. Avoid touching the UV lamp and the print block.

Reference Documentation

- [Cleaning Objet parts with Sodium Hydroxide](#)
- [Making 3D printed Molds](#)
- [Post Processing](#)
- [Users Guide](#)

Print Head Cleaning

| | |
|---------------------------|---|
| Build Tray Cleaning 1 | Print Head Cleaning |
| Build Tray Cleaning 2 | Build Tray Cleaning 1 |
| Build Tray Cleaning 3 | Build Tray Cleaning 2 |
| Head Allignment | Build Tray Cleaning 3 |
| Load Cells Calibration | Head Allignment |
| Pattern Test | Load Cells Calibration |
| System Shutdown | Pattern Test |
| UV lamp Cleaning | systemshutdown.mp4 |
| Wiper Cleaning Inspection | UV lamp Cleaning |
| | Wiper Cleaning Inspection |

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