

Stevens Prototyping Lab Additive Manufacturing Equipment

Desktop 3D printers

Ultimaker 2 Go

- **AM technology:** Fused Deposition Modeling (FDM) – single extruder
- **Build Volume (LxWxH):** 120mm x 120mm x 115 mm (4.7” x 4.7” x 4.5”)
- **Layer Resolution:** 0.02mm / 0.1mm / 0.15mm (0.007”/0.004”/0.006”)
- **Model Material:** PLA
- **No Support Material** (Model material can be used as support but will require manual removal and cleanup afterwards)



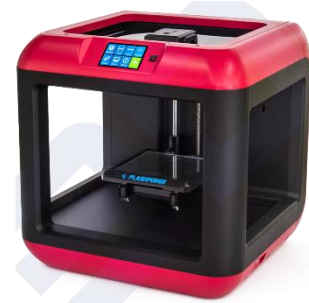
Makerbot Replicator Mini

- **AM technology:** Fused Deposition Modeling (FDM) – single extruder
- **Build Volume (LxWxH):** 100mm x 100mm x 125 mm (3.9” x 3.9” x 4.9”)
- **Layer Resolution:** 0.2mm (0.008”)
- **Model Material:** PLA
- **No Support Material** (Model material can be used as support but will require manual removal and cleanup afterwards)



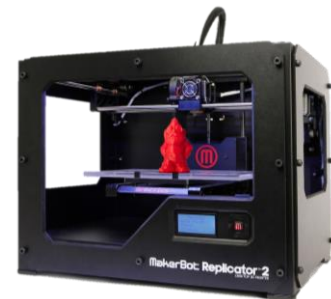
Flashforge Finder

- **AM technology:** Fused Deposition Modeling (FDM) – single extruder
- **Build Volume (LxWxH):** 140mm x 140mm x 140 mm (5.5” x 5.5” x 5.5”)
- **Layer Resolution:** 0.1mm (0.004”)
- **Model Material:** PLA/ PVA
- **No Support Material** (Model material can be used as support but will require manual removal and cleanup afterwards)



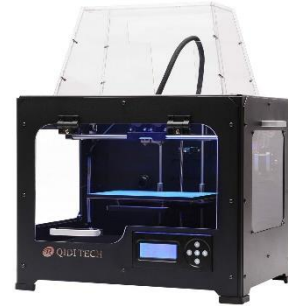
Makerbot Replicator 2 (FDM)

- **AM technology:** Fused Deposition Modeling (FDM) – single extruder
- **Build Volume (LxWxH):** 285mm x 153mm x 155 mm (11.2” x 6” x 6.1”)
- **Layer Resolution:** 0.1mm / 0.2mm / 0.3mm (0.004”/0.008”/0.012”)
- **Model Material:** PLA
- **No Support Material** (Model material can be used as support but will require manual removal and cleanup afterwards)



Qidi2

- **AM technology:** Fused Deposition Modeling (FDM) – Dual extruder
- **Build Volume (LxWxH):** 230mm x 150mm x 150 mm (9" x 5.9" x 5.9")
- **Layer Resolution:** 0.1mm - 0.5mm (0.004" - 0.0197")
- **Model Material:** PLA/ABS
- **Support Material:** PLA/ABS (Manual removal), PVA (Water soluble)



XYZ da Vinci 2.0 Duo

- **AM technology:** Fused Deposition Modeling (FDM) – Dual extruder
- **Build Volume (LxWxH):** 150mm x 200mm x 200 mm (5.9" x 7.8" x 7.8")
- **Layer Resolution:** 0.1mm - 0.4mm (0.004" - 0.0157")
- **Model Material:** PLA/ABS
- **Support Material:** PLA/ABS (Manual removal)



Formlabs Form 2

- **AM technology:** Stereolithography Apparatus (SLA) – Laser resin curing
- **Build Volume (LxWxH):** 145mm x 145mm x 175 mm (5.7" x 5.7" x 6.9")
- **Layer Resolution:** 0.025mm – 0.1mm (0.001" – 0.004")
- **Model Material:** Photopolymer resin (Clear, Opaque, Castable, Flexible, Dental, Tough)
- **No Support Material** (Model material can be used as support but will require manual removal and cleanup afterwards)



Professional 3D printers

<p style="text-align: center;"><u>Stratasys Mojo</u></p> <ul style="list-style-type: none">• AM technology: Fused Deposition Modeling (FDM) – Dual extruder• Build Volume (LxWxH): 127mm x 127mm x 127 mm (5" x 5" x 5")• Layer Resolution: 0.178mm (0.007")• Model Material: ABSplus• Support Material: SR-30 (Soluble in Sodium Hydroxide solution)	 A compact, desktop-sized 3D printer with a grey and black finish. It has a transparent front door showing the internal printing chamber. The brand name 'Mojo' is visible on the top left.
<p style="text-align: center;"><u>Stratasys uPrint SE plus</u></p> <ul style="list-style-type: none">• AM technology: Fused Deposition Modeling (FDM) – Dual extruder• Build Volume (LxWxH): 203mm x 203mm x 152 mm (8" x 8" x 8")• Layer Resolution: 0.254mm / 0.33mm (0.01" / 0.013")• Model Material: ABSplus• Support Material: SR-30 (Soluble in Sodium Hydroxide solution)	 A desktop 3D printer with a vertical orientation. It features a large, dark-colored touchscreen display on the front panel. The printer is primarily grey with black accents.
<p style="text-align: center;"><u>Stratasys Dimension SST 1200es</u></p> <ul style="list-style-type: none">• AM technology: Fused Deposition Modeling (FDM) – Dual extruder• Build Volume (LxWxH): 254mm x 254mm x 305 mm (10" x 10" x 12")• Layer Resolution: 0.254mm / 0.33mm (0.01" / 0.013")• Model Material: ABSplus• Support Material: P400SR (Soluble in Sodium Hydroxide solution)	 A tall, industrial-grade 3D printer. It has a vertical design with a large, dark display screen on the upper front. The printer is mounted on four casters for mobility. The color scheme is grey and black.
<p style="text-align: center;"><u>Objet 350 Connex 3</u></p> <ul style="list-style-type: none">• AM technology: Photopolymer Jetting (Polyjet) – Eight heads• Build Volume (LxWxH): 340mm x 340mm x 200mm (13.4" x 13.4" x 7.9")• Layer Resolution: 0.016mm or 0.03mm (0.0006" or 0.001")• Model Material: Multiple material options + digital Materials<ul style="list-style-type: none">○ 5 Material families:<ul style="list-style-type: none">▪ VeroClear (Transparent Rigid),▪ Tango family (Rubber-like)▪ RGD720 (Transparent General purpose)▪ Vero family (Rigid Opaque)▪ Rigur and Durus (Polypropylene-like)○ 140 digital materials:<ul style="list-style-type: none">▪ Engineered plastics▪ Rubber-like with varying hardness▪ Transparent shades and patterns ...• Support Materials:<ul style="list-style-type: none">○ SUP705 gel like photopolymer (removed using waterjet)○ SUP706 (removed using waterjet or Sodium Hydroxide solution)	 A large, industrial 3D printer with a complex, multi-part design. It features a large, dark-colored front panel and is mounted on casters. The printer is primarily grey with black accents.