

# MAKERBOT® REPLICATOR® Z18 3D PRINTER

GIVE YOUR STUDENTS A TOOL TO THINK BIGGER, BUILD BIGGER,  
AND MAKE EXTRA-TALL MODELS ON OUR BIGGEST 3D PRINTER.



[MAKERBOT.COM/Z18](http://MAKERBOT.COM/Z18)

## 3D PRINTING IN THE CLASSROOM: THE FUTURE IS NOW

Join the growing number of K-12 schools bringing project-based learning to life with hands-on 3D printing projects and teaching problem solving through design.



- **High School:** Students at Newton High School in Newton, NJ collaborated to prototype a better locker-opening mechanism for a disabled fellow student.



- **Middle School:** Students at MacArthur Barr Middle School in Nanuet, NY engineered and 3D printed faster wheels for a CO2-powered model car race.



- **Elementary School:** Fourth graders at the Léman Manhattan Lower School in New York, NY designed, 3D printed, and tested experimental boats to learn about flotation principles.

## WHY CHOOSE MAKERBOT 3D PRINTERS?

MakerBot provides a unique 3D Printing Ecosystem that goes beyond hardware to allow beginners and experts alike to immediately leverage the best of 3D printing.

- **MakerBot PLA Filament:** Classroom-safe, available in 30+ colors and special properties, and rigorously tested to perform on our printers.
- **MakerBot Smart Extruder:** Swappable technology allows for quick maintenance and compatibility with future filament innovations.
- **MakerBot Desktop and PrintShop™:** Free software for discovering, creating, and managing 3D printable files.
- **MakerBot Learning:** Empower your team to leverage 3D printing with personalized, hands-on professional development courses taught by 3D printing experts.
- **Thingiverse.com:** Free downloadable and printable 3D files that anyone can use to get started with 3D printing right away.

## FAQs

### How much filament will I use?

- Typical customers use approximately 15 large spools per year (moderate use)
- Annual materials cost of between \$400 and \$700
- One large spool produces approximately 80 iPhone cases

### What software do I need to 3D print?

- MakerBot 3D Printers work with almost all 3D design software programs!
- Popular programs include: Autodesk Inventor (free), Autodesk 123D (free), Tinkercad (free), SketchUp (free), SOLIDWORKS, Adobe Photoshop CC
- 3-step process: Start with a 3D file » Slice it in MakerBot Desktop » Print!

### What support and service is available?

- All MakerBot 3D Printers come with standard six-month hardware warranty
- Additional MakerBot MakerCare® Protection Plans are available that include phone, email, and live-chat support plus replacement of parts and up to 2 Smart Extruders per year.

### PRINTING

PRINT TECHNOLOGY  
Fused Deposition Modeling

BUILD VOLUME  
30.5 W x 30.0 D x 45.7 H cm  
[12.0 W x 11.8 D x 18.0 H in]  
41,770 cubic centimeters [2,549 cubic inches]

LAYER RESOLUTION  
100 microns [0.0039 in]

FILAMENT DIAMETER  
1.75 mm [0.069 in]

FILAMENT COMPATIBILITY  
MakerBot PLA Filament  
Small Spool: 0.22 kg [0.50 lbs.]  
Large Spool: 0.90 kg [2.0 lbs.]  
XL Spool: 2.26 kg [5.0 lbs.]\*  
XXL Spool: 4.53 kg [10.0 lbs.]\*  
\*Requires MakerBot Filament Case

BUILD PLATE  
Injection-molded PC-ABS

PRINT CHAMBER  
Enclosed and heated build chamber

### SIZE & WEIGHT

PRODUCT DIMENSIONS  
49.3 L x 56.5 W x 85.4 H cm  
[19.4 L x 22.2 W x 33.6 H in]

PRODUCT WEIGHT  
41 kg [90 lbs]

### ELECTRICAL

POWER REQUIREMENTS  
100-240 V; 5.4-2.2 A; 50/60 HZ; 350 W

### SOFTWARE

FILE TYPES  
STL | OBJ | THING | MAKERBOT

OPERATING SYSTEMS  
Windows (7+), Mac OS X (10.7+)  
Linux (Ubuntu, Fedora)

CONNECTIVITY  
USB, Wi-Fi, Ethernet

CAMERA  
Camera Resolution: 320 x 240 pixels