MakerBot Sketch Large

Product data sheet



Print bigger and bolder with education resources every step of the way.

The top 3D printing solution for education, the Makerbot Sketch platform has set the standard in thousands of classrooms across North America. The Sketch and Sketch Large 3D printers make it easy for educators to test ideas, grow student engagement, revive aging curricula, and boost design thinking on a platform that grows with you.

Resources every step of the way

3D printing in the classroom isn't just about the 3D printer - it's about the curriculum, the projects, and knowledge that surrounds it. That's why we're including printer training, design thinking curriculum and easy access to lesson plans and projects, plus enough filament to print all your students' projects.

- Explore 3D printing on a bigger stage: Sketch Large makes it easy for students to create oversized parts whenever needed
- ✓ ISTE-approved 3D printer training: Included with each Sketch, this expert training gives anyone more confidence in setup and printing
- Enclosed chamber with particulate filter: Place Sketch Large anywhere in the classroom without worrying about curious hands or air quality
- Heated and flexible build plate: Increases print success and makes removing finished parts a breeze
- ✓ Touchscreen controls and 1080p camera: 3D print with an intuitive interface and monitor prints from anywhere with an onboard camera

The MakerBot platform



Ideal for every skill level

MakerBot Sketch is a solution that works for your classroom – whether you're printing for the first time, switching to a bigger printer, or scaling your 3D printer program.



CloudPrint software

Turn your students' digital models into physical 3D prints with MakerBot CloudPrint. This easy, cloudbased software requires no installation or student account creation.



Nurture design thinking

Self-paced, interactive training curriculum will prepare you and your students for 3D printing and career-building skills that go beyond the classroom.



Endlessly scalable

Begin with a platform that can serve the 3D printing needs of teachers in a single classroom or scale it across a whole school district..

MakerBot Sketch Large specifications

Technology Fused deposition modeling (FDM)

Print head Single extrusion print head with replaceable extruder

Build volume (XYZ) 220 x 200 x 250 mm (8.66 x 7.87 x 9.84 in) **Layer resolution** Maximum capability: 100 - 400 micron

Heated build plate temperature Up to 110 °C

Build plate Heated build plate

Nozzle diameter 0.4 mm Filament diameter 1.75 mm

Connectivity Wi-Fi (2.4GHz + 5GHz), LAN, USB port

Dimensions W 535 x D 470 x H 547 mm (W 21 x D 18.5 x H 21.5 in)

Net weight 23.2 kg (51.2 lbs)

Free supplied software CloudPrint

Supported OS MacOS, Windows, ChromeOS

Available curriculum



Educator's Guidebook

Lesson plans, tips, and tricks in how to integrate 3D printing into the classroom. Projects span robotics, engineering, mathematics, science, art, history, and music.



Teacher Certification

Prove your knowledge of 3D printing as a MakerBot expert and stand out as STEM education leaders.

Student Certification

Give middle and high school students a proven edge. This hands-on 3D printing training boosts their design thinking skills and sets a foundation for measuring STEM proficiency.

Compatible materials



Easy to print

- MakerBot PLA
- MakerBot Tough PLA

Customize your setup

The Sketch 3D printer includes:

- · 3x spools of PLA
- · 2x build plates
- 1x spatula
- 1x seat in Teacher Certification
- · 15x seats in Student Certification
- · MakerBot Cloud with print queuing
- 1 year warranty