



3D Printing

Lost your cell phone stand? Need a pen holder? Want to create a Minecraft model? Missing a much-needed Lego piece? 3D printing to the rescue!! 3D printers use thermoplastic filament to create three-dimensional objects by depositing the filament incrementally according to the data provided by a .STL file.

Getting Started

There are a variety of 3D software programs which support the .STL file type. Here is a list of some commonly used free programs: TinkerCAD, Vectary, SketchUp Free, Meshmixer, 3D Slash. If creating a new project in the IdeaLab, TinkerCAD is suggested. However, you may choose whichever software program you prefer. To learn more about TinkerCAD, please see the *Tinkercad LibGuide*.

Next Steps

To begin a 3D print job, please provide a thumb drive containing your .STL file to the Idea Lab Library Staffer. The time to complete a print job will vary from minutes to several hours according to the size and complexity of a 3D model. The Dremel Digilab 3D Printer will display the time to completion on its output window. *You do not need to be present throughout the duration of the printing job, but please make sure to provide your contact info to the Library Staffer for notification of job completion or printing issues.*

3D Printing Examples



[Totoro Cell Phone Holder, by awschaeffer on Thingiverse](#)



[Lego Minifigure compatible snake, by joachim67 on Thingiverse](#)

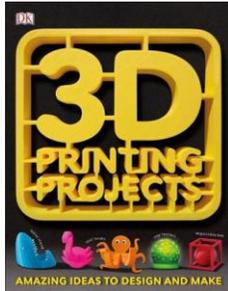


[Hyperboloid Pen Holder, by stuffperson on Thingiverse](#)

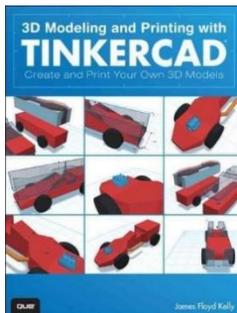


Helpful Resources

Available through CW/MARS:

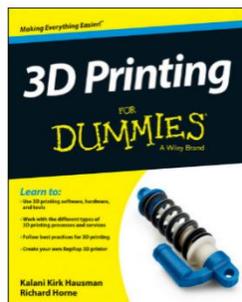


[3D Printing Projects,](#)
[Gerhard, Karyn \(Editor\)](#)



[3D Modeling and Printing](#)
[with Tinkercad, Kelly,](#)
[James F. \(Author\)](#)

Available through OverDrive:



[3D Printing for Dummies](#)

Online Resources

[Tinkercad](#)

[Instructables - Tinkercad](#)

[sparkfun](#)

[Beginner's YouTube Tinkercad Tutorial](#)

[MakerBot Thingiverse](#)

Share Your Progress

Be sure to take photos and/or short videos and email them to rdonovan@southboroughma.com so we can post them on our Facebook and Twitter pages. Use hashtag #sblibIdeaLab.