Make It at the Library
September Workshop Homework

HARDWARE

Getting Started with Your Printer: http://printrbot.com/project/simple-metal/

A site with projects, feedback, and advice from users: http://learn.printrbot.com/

SOFTWARE

Cura – needed to print from your Printrbot.

- Instructions: please read this first, you need version 15.04
- Make sure the correct driver is installed for your computer.
- Bring this computer to the workshop!

3D Modeling Options

TinkerCad: https://www.tinkercad.com/
Tinkercad is a free, easy-to-learn online app anyone can use to create and print 3D models.
This will be the primary modeling software used during the workshop.
1. Set up a free account
2. Watch these free and really short video tutorials to get started.
   https://www.youtube.com/playlist?list=PLV6cmKvnKRs5Qjz0GY_NO4pmTwDjKhnzT
3. Go to Tinkercad and work through the Lessons under the 'Learn Tab'. Complete at least the "Basics" and additional lessons as you have time. The more familiar you are with this software, the more we can accomplish during the September workshop.

These are other free options available:
FreeCAD: http://www.freecadweb.org/
It would be extremely helpful if you logged onto FreeCAD and downloaded it to your computer. If you have some time to mess around with it, this would be a good program to use for more advanced 3D modeling.

FreeCAD is a parametric 3D modeler. Parametric modeling allows you to easily modify your design by going back into your model history and changing its parameters. FreeCAD is open source (LGPL license) and completely modular, allowing for very advanced extension and customization. FreeCAD video tutorial series

OpenSCAD: http://www.openscad.org/
OpenSCAD is a software for creating solid 3D CAD objects.
It is free software and available for Linux/UNIX, MS Windows and Mac OS X.

3D PRINTING – These are some short but informative articles for you to review.

Interesting article on why 3D printing needs to be in educational settings. Not completely relevant to libraries, but gives a foundation on what you can do with 3D Printing! http://3dprint.com/27743/3d-printing-benefits-schools/

Article on 3D printing in libraries: http://3dprint.com/40170/library-3d-printing-services/

Progress in the Making; An Introduction to 3D Printing and Public Policy http://www.ala.org/offices/sites/ala.org.offices/files/content/3d_printing_tipsheet_version_9_Final.pdf

How to Start a 3D Printing Program in your Library http://newsbreaks.infotoday.com/NewsBreaks/How-to-Start-a-3D-Printing-Program-at-Your-Library-103675.asp

Great article from a university library which includes pointers and more! http://www.educause.edu/ero/article/making-it-real-3d-printing-library-service

Directory for a variety of 3D related issues, services, and more: http://directory.3dprintingindustry.com/

Benetech's Diagram Center

DIAGRAM stands for "**D**igital **I**mage **A**nd **G**raphic **R**esources for **A**ccessible **M**aterials." Established in 2010. The DIAGRAM Center is a research and development center whose goal is to dramatically change the way image and graphic content for Accessible Electronic Media (AEM) is produced and accessed, so that students with print disabilities are provided equal access to the general education curriculum. The DIAGRAM Center is a Benetech Global Literacy initiative.

Just want you to be aware of this site. I am on the advisory committee for the "3D Printing in Education and Accessibility" led by Benetech and funded through IMLS. There will be an online directory of 3D models that are needed by educators to help them teach students with visual impairments. Your kids could assist in developing these models and upload them to this worldwide repository and/or print models that teachers need! http://diagramcenter.org/

http://diagramcenter.org/3d-printing.html

BACKGROUND

Remake Learning Playbook: https://medium.com/remake-learning-playbook

Check out the playbook overall but pay particular attention to this section:

https://medium.com/remake-learning-playbook/remaking-learning-for-a-changing-world-cc3790ff010b