3D Printing at the Library

The Library has a FlashForge Adventurer 3 printer that turns digital models drawn using CAD (computer-aided design) software into three dimensional objects.

3D 'printing' is actually the gradual build-up of heated plastic filament in very thin layers – usually just .2 millimeters thick.

Our printer uses PLA or polylactic acid filament. It comes on a spool that feeds into the printer's extruder, which is similar to the tip of a glue gun. The extruder heats up and melts the plastic to make the layers of the design.

PLA is a biodegradable plastic made from starches such as cassava root and sugarcane. Sometimes when it gets heated up, it even has a slightly sweet smell.

Designing in 3D

If you want to give 3D printing a try, you can get started with your own design or use someone else's (as long as it is meant to be shared). If you've never tried CAD software before, we suggest that you try TinkerCAD which is free to use online from any computer or tablet. You can create a login, follow the tutorials and learn to create your own design.

Printing Costs & Restrictions

There is a fee of $1 per hour for printing a design. Currently we have red and blue filament available, but will purchase others as we gauge demand. When you submit your file, the library staff will let you know what the cost of your design will be. We will limit print time to ensure a print fits in during library open hours. We can not print objects that will take longer than 7 hours to print. The maximum build size is 150 x 150 x 150 millimeters. Payment must be in cash or check at time of pick up.

You can submit .stl files to kburnham.jamm.library@gmail.com to be printed. We aim to print items in the same week that we receive them and will let you know when your print is finished. We will attempt one re-print if the design fails to print correctly the first time, but we assume no fault if the design does not print as expected.

The Library's 3D printer may only be used for lawful, non-commercial purposes. The library will not print items that are in violation of intellectual property rights including copyright, patent or trademark protection or that are in violation of local, state or federal law.

The Library reserves the right to refuse any 3D print request.