

MOUNT PROSPECT PUBLIC LIBRARY 3-D PRINTING GUIDELINES

About 3-D Printing at the Library

- The Library owns two Dremel® Idea Builder 3D40 printers
- The maximum build size is 8" (l) x 6" (w) x 6.7" (h) (203 mm x 155 mm x 170 mm)
- Uses PLA (polylactic acid) filament, which is a plant-based, recyclable thermal plastic, in the following colors:
 - o Blue
 - o Green
 - o Gold
 - o Orange
 - o White (best "blank slate" color for sanding and painting an item)
 - o Black
 - o Red
 - o Purple
 - o Silver
 - o Natural white/translucent (shimmery)
- 100 microns (.1 mm) to 300 microns (.3 mm) standard layer resolutions
- 5% - 100% infill (standard line is 25%)
- Single extrusion

Submission Guidelines

- Create a model of an item using any CAD (computer-aided design) program.

A few we suggest are:

- o TinkerCAD: web-based, free with an account
 - o Autodesk 123D: free software suite download, including 123D Design and Meshmixer (installed on library enets #205-208)
 - o Designs are also available from a variety of file-sharing websites, such as thingiverse.com
- Save your work as a .STL file
 - Use our submission form to upload file
 - o Items can only be printed in one color
 - o Patrons must agree to guidelines before submission

- Library staff will print your item
- Library staff will contact you when your item is ready to be picked up. Items will be available for pick up at the Registration Desk. Production times may be up to a week, but may vary depending on staff scheduling. Priority will be given to library programs and staff needs.
- Payment is due at the time of pickup

Procedure

- All printing will be carried out by MPPL staff.
- Printing is limited to MPPL cardholders and will be completed on a first come, first served basis. For patrons under 18 years of age, permission from a parent or guardian is required.
- Items must be smaller than 8" x 6" x 6.7" (203 mm x 155 mm x 170 mm). Items larger than this measurement will be scaled to largest printable size.
- The print time must not exceed 10 hours.
- The cost of printing is a base rate of \$1 per project and \$.10 per meter and is rounded up to the nearest 5¢ or 10¢. For example, a 10.7 meter project will cost the base rate of \$1 plus \$1.07 for the length of filament used and when rounded up to the nearest 10¢ comes to a total of \$2.10.
- Staff will review the design to determine the cost and time for printing and will contact the patron for approval prior to printing. Approval must be received from patron within 3 days; after that time, designs will be moved to the bottom of the print queue. Patrons will also receive notification when the print job is completed.
- We reserve the right to refuse printing based on illegal, inappropriate, potentially dangerous items or those items that violate copyright laws.
- Staff will not edit designs to ensure proper printing; if the model fails to print after 3 attempts, patrons will be contacted to edit and resubmit their designs.
- Items must be picked up within 2 weeks. Items that are not picked up become property of the library and may be recycled. Patrons will be charged for the items. Patrons will not be charged for failed or incomplete print jobs.