

3D PRINTERS

Policy Statement:

3D printers are available to all members of the public to print three-dimensional objects from digital files that they design.

Scope:

The 3D Printer Policy applies to all Phoenix Public Library locations and business operations.

Regulations:

- Phoenix Public Library's 3D printers are not permitted to create any items that are:
 - prohibited by local, state, or federal law
 - weapons, unsafe, dangerous, or that may pose a threat to others
 - obscene or in any way inappropriate for a library environment
 - subject to copyright, patent, or trademark protection. This includes trademarked characters, logos, and use of trademarked text or images such as but not limited to: Star Wars, Disney and Marvel characters, Coca-Cola logo, etc.
- MACH (Makers, Artists, Crafters, Hackers) 3D printers can print models free of charge only if:
 - the user has designed the model themselves, or
 - the model falls under the category of open-source assistive or adaptive devices intended for accessibility or disability purposes. Examples of models in this category can be found on websites such as makersmakingchange.com and access3d.org, and includes assistive devices such as bottle openers, pen holders, and wheelchair ramps.
- The Library reserves the right to refuse any 3D print request.
- Makers are limited to two (2) designs per month.
- Each build must measure no larger than 175 mm in any direction. Larger items may be considered upon request; however, smaller items tend to print better. Larger items may be printed with lower detail to expedite the printing process. No print time can exceed a 7-hour maximum print time. If a print may exceed this time, MACH1 staff will contact a customer to describe size and/or resolution changes.
- Only designated MACH staff are allowed to handle 3D printers and equipment.

Printing Procedure:

Design

Basic Computer Aided Design (CAD) knowledge is needed to create a file for printing. There are numerous resources online to learn these skills, and Phoenix Public Library offers classes on 3D design. MACH computer lab computers allow customers access to CAD programs such as Blender, Sculptis, MeshLab, and TinkerCAD.

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Submitting Files

- Files must be in .stl or .obj format, and no larger than 25mb in size.
- Files should be submitted on a USB drive, SD card or through AskUs
- Contact information and specifications are required. This includes the creator's first and last name, phone number, and email. In addition, any specific design requests such as color or resolution must be included.

Prints Submitted

- Files will be printed using Makerware or other authorized software. Library staff will view all files prior to printing. Unless exact dimensions are specified (allowing for abilities of the printers), staff will determine final dimensions based on printer abilities. All adjustments to the model design itself will be the responsibility of the maker.
- While staff will try to expedite the process as much as possible, Phoenix Public Library cannot guarantee a particular timeframe for when prints will be available. Factors including a large queue or problems with the printers may result in additional time. Library staff will use the contact information provided to inform makers when their prints are completed, or if there is going to be a delay.
- Printed items not picked up within 3 weeks (21 days) of notification become the property of the Library and may be disposed of or displayed as appropriate.
- The Library does not assume responsibility for files or inability to print due to unforeseen circumstances.