

3D Printer Policy

Policy:

The Needham Free Public Library offers the community access to new and emerging technologies, such as 3D printers, to inspire an interest in design and to help people bring their creations to life. This policy establishes how and under what circumstances library patrons may use the library's 3D printer. The Library's 3D printer is available to the public for educational, workshop, and programming purposes to make three-dimensional objects in plastic, using a design that is uploaded from a digital computer file.

Library patrons with a Needham Free Public Library card may request 3D objects to be printed. Library fines due on the card will not prevent a patron from requesting a 3D print. All 3D prints must be scheduled in advance by submitting a completed 3D Print Request Form available at the Reference Desk (for teen and adult use) or at the Children's Desk (for families with pre-teen children). A separate 3D Print Request form must be submitted for each item. Each 3D Print Request form must be accompanied by a USB flash drive containing an appropriate and correctly sized .STL file of the object to be printed. All designs must be submitted in an .STL file format. The Library will not be responsible for the creation of the .STL files.

Priority printing is given to library programs and events.

Only designated Library staff will have hands-on access to the 3D printer.

Regulations:

Only one print request per household at a time and no more than two print requests per month per person.

Build requests must take five hours or less. The library reserves the right to delay or change the printing order of projects, depending on how long a project may take to print. Printing will be permitted only during Library hours. Due to the amount of time it takes to print an object, the number of requests received, and staff availability, the library will not guarantee that a print job will be ready on a specific day. The printer will only print in a single color. Patrons may submit a color preference; however, the library will determine the color of the filament for printing based on availability. Patrons are solely responsible for the creation and editing of design files. All files will be deleted from the system following the completion of the print job.

3D printing jobs can fail for a number of reasons. If this happens, the library staff will attempt to print the job one more time. If the print fails a second time, or if the staff deems that the print is likely to fail a second time, library staff will notify the requestor, so he/she can modify the file and resubmit it. The Needham Free Public Library does not accept responsibility if a project is destroyed or does not print correctly.

Patrons will be notified if the design is unprintable. Print quality or functionality is not guaranteed. People seeking large, complex prints should use a commercial service.

There may be times when the printer is malfunctioning, being repaired, or is being used for an event. During such times, the 3D printer will be unavailable for use and there will be a delay in approving submissions and printing objects.

3D printers and related equipment may be used for lawful purposes in compliance with library policies. Patrons should be aware that prints may occur within public view and that the library does not make any promise that any particular print will not be seen by members of the public. The identity of the submitter of a job will fall under the same legal protection that extends to the privacy of the intellectual content of borrowers of library materials.

No hazardous, offensive, dangerous, disruptive, or illegal items will be printed. Examples of unlawful purposes or potentially rejected jobs include but are not limited to:

- Weapons such as plastic guns and/or knives
- Anything prohibited by local, state or federal law.
- Unsafe, harmful, dangerous items that pose an immediate threat to the well-being of others.
- Items that are obscene or otherwise inappropriate for the library environment.
- Work that is in violation of another's intellectual property rights.
- Material that is subject to copyright, patent or trademark protection.
- A job that is too large or complex.

Finished objects are subject to review for compliance. All determinations will be made by the library staff in its sole discretion. The library staff has the right to decline any print job.

The library patron agrees to assume all responsibility for, and shall hold the library harmless in, all matters related to copyrighted, patented or trademarked materials. Neither the Town of Needham nor the library is responsible for any object created with 3D printers or any harm incurred by a printed object. The Needham Free Public Library and the Town of Needham are not responsible for any damage, loss, or security of data arising from the use of its equipment, nor the functionality or quality of objects produced on the 3-D printer. Supervision of the use of the 3D printer by library staff does not constitute knowledge, or acknowledgement, of any final use of the 3D product.

Patrons must leave their email address and phone number, so they may be contacted when their print is ready.

Patrons submitting print requests will be contacted when their object is available for pick up. Finished projects may be picked up at the Reference Desk for teens and adults or the Children's Desk for families with pre-teen children. Items must be picked up by the individual who requested the print. In the case of a minor, a parent or legal guardian may pick up the item for the minor. Items not picked up after seven days become the property of the Library.

At the current time, prints are free; however, the Library reserves the right to set reasonable fees to offset printing costs in the future.

Requirements:

The print object may not be larger than 5 inches in length; 5 inches in width, and 4 inches high.

Unless specific measurements are listed, library staff will scale print files down to a cost-efficient size.

Procedures:

The person requesting the print should download a 3D print file of an object from a webpage (e.g. Thingiverse or TinkerCad) or scan an existing physical object to create a computer file of it. These scanned or downloaded files should be saved on a computer or thumb drive as an .STL file. Before submitting the file to be printed, it is best to view the file in a maker design tool (e.g. Tinkercad) to check that the object is an appropriate size. Resize the object if necessary and save the resized file on a thumb drive. Fill out the 3D Print Request form completely and submit the form along with the thumb drive containing only the .STL file of the correctly sized object at the Reference Desk for teens and adults or at the Children's Desk for families with pre-teen children. Please be aware that objects with narrow, spindly parts or parts that jut out away from the rest of the object may experience printing problems.

Once the submission has been received, library staff will review the 3D model for printability and appropriateness. If changes are needed, the patron will receive an email detailing the changes. If changes are not needed, staff will send a confirmation email to the address provided. Your model will be printed and kept for pickup at the Library. Patrons can expect models to be printed in about two weeks, but printing time may vary, due to library use of the printer for workshops or programs or printer downtime. Once the file has been printed, staff will send another email informing the patron of the due date to pick up the model and the flash drive containing the file.

Patrons may see slight imperfections in their prints. Small bumps or holes and rough edges at the base of an object may occur with 3D printing. Library staff will not remove rafts or external supports from prints. Patrons can clean up some imperfections or remove rafts and supports by snapping them off or using fine sandpaper or other tools.

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