How to Use the Library's

3D Print Service

Concord
FREE PUBLIC LIBRARY

Type of Printer

The Concord Free Public Library owns an Ultimaker 2+. You can learn more about the printer at the Ultimaker website, https://ultimaker.com/en/products/ultimaker-2-plus/specifications

Design

- There are many websites where you can make your design vision a virtual reality. Tinkercad, https://www.tinkercad.com, is a great, free place to start.

Prepare Project for Print

- Once you have completed your design, you will need to import it into the Ultimaker's Cura software to prepare it for printing. You can download free Cura software here, https://ultimaker.com/en/resources/20406-installation-cura-2-1,

- The Cura software will allow you to modify some printer settings, including the density of your project. It can be hollow, or have a range of infill densities. You might choose to make your project hollow in order to reduce material use and the print time. You might want it to be very strong, in which case, you might choose a dense build or even a solid build. This sort of build would require much more material and take longer, but might be appropriate if you were, for instance, printing a screw or a hinge that you intended to use on a door. You can enable supports and create a float for the project. You can research all these features online and learn by experimenting.

- Once you have uploaded your project to Cura and chosen the print settings, the Cura software will give you an estimate of the time and filament that your project will require. You might choose to modify the settings or even the size of your project in order to reduce the print time or filament use.

- **Please note** that we can only run print jobs during the library's business hours.

Deliver the File to the Library for Printing

- There are two ways you can deliver your file to the Library:
1. Save your project in .gcode format from the Cura software to a removable drive and bring it to the Library.

2. Attach your .gcode file in an email to: **3DPrint@concordlibrary.org** and include:

  ➢ your name

  ➢ your email address

  ➢ best phone number to reach you

  ➢ preferred color of print job

Some things you should know:

- The Ultimaker has a maximum print size of 8.8 x 8.8 x 8.1 inches, but in reality, you will want to try a project much smaller than that so that your print will not take too long to print. Printing even a very small project can take an hour or two.

- Our Ultimaker 2+ is currently stocked with PLA filament.

- We have a number of filament colors, including **black, white, red, blue, green, yellow, silver metallic and transparent**. You can view the colors at the Ultimaker website.

- See reverse for 3D Printer Policy to sign and return before printing.

Questions? Please email:
3dprintconcord@concordlibrary.org

3D Printer Policy

The Concord Free Public Library (CFPL) strives to offer access to new and emerging technologies to further its mission and is pleased to offer the use of an Ultimaker 2+ 3D printer to library patrons. This policy establishes how and under what circumstances patrons may use the CFPL's 3D printer.

POLICY
The 3D printer is available to the public to make three dimensional objects in plastic using a design that is uploaded from a digital computer file.
The 3D printer may be used for lawful purposes only. Patrons are not permitted to use the printer to create objects that are:
a. Prohibited by local, state or federal law.

b. Unsafe, harmful, dangerous or that may pose an immediate threat to the well being of others.

c. Obscene or otherwise inappropriate items for the library environment.

d. In violation of another's intellectual property rights. For example, you cannot reproduce material subject to copyright, patent or trademark protection.

CFPL reserves the right to refuse any 3D print request. If a build is too large or complex, CFPL may suggest the use of a commercial service.

Only trained library staff and volunteers will have hands-on access to the 3D printer.

Patrons wishing to use the 3D printer must be a library patron in good standing.

HOW TO PRINT YOUR 3D DESIGN
(See reverse for "How to Use the Ultimaker 2+" instructions.)
Once you have completed your 3D design, save your design in the STL file format and send as an attachment to 3DPrint@concordlibrary.org. Include your email address and phone number so that CFPL can contact you with a price quote for printing your design, an estimated wait time for completion of your design, and to go over your print options.

While we will estimate your wait time, CFPL makes no commitment to being able to produce print submissions in a specific time frame. CFPL will choose the order in which jobs are printed to maximize efficiency and give as many people as possible a chance to obtain a print.

COST - CFPL will assess a charge of **$0.25 per gram**, as estimated by the printer software. Patrons will pay for all material used, including any cancelled or flawed prints. Payment is to be made at the time of pickup.

CFPL cannot guarantee model quality or stability, or the confidentiality of designs. The requesting patron is responsible for all errors that occur during the printing process.

The individual who submitted them, using a valid ID., must pick up items. Items not picked up within 14 days after being printed will become the property of the CFPL. A requesting patron who does not pick up the printed item within the allotted timeframe forfeits all future rights to use the 3D printer.

DISCLAIMER
This Policy and Procedure may change at any time. While CFPL staff members make every effort to oversee the use of the 3D printer, the use of the printed object upon completion is not under the direction or control of the CFPL or the Town of Concord. The CFPL is not responsible for any object created with the use of the 3D printer, including any harm or injury incurred as a result of any usage of the 3D printer or the printed object.

On occasion, the 3D printer may operate in a public area, and have an Internet-enabled camera that captures images of the items being printed. Still images and/or video of the printing process may be posted on a public website. The CFPL does not make any promise that any particular print will be confidential or private. The identity of the patron submitting the job will fall under the same legal protection that extends to the privacy of the intellectual content of the borrowers of library material.

Agreement
By signing this statement, I indicate that I understand the terms of this 3D Printer Policy and agree to abide by it. I relinquish any responsibility on behalf of the CFPL's liability in the printing process or the use of the printed object.

_____
Printed Name

_____ _____
Signature   Date

_____
Parent or Legal Guardian's Printed Name

_____ _____
Signature   Date

Approved by the Library Committee, April 18, 2017