



## 3D Printer Frequently Asked Questions (FAQs)

### What kind of 3D printer do you have?

Our Raise3D Pro printer turns your ideas and digital designs into real objects, like toys or jewelry.

### What kind of plastic does the printer use?

The printer is able to use either ABS plastic or PLA plastic. Both are safe and recyclable. The Library uses PLA plastic with a maximum print resolution of 50 microns (0.05 mm).

### Is there anything I can't print?

Yes. 3D printers are remarkable tools, but we still must comply with the laws of physics as well as the rules of the Novi Public Library. For a full explanation of what can and cannot be printed, please read the Library's 3D Printing Policy.

### Here are some general guidelines:

The print must fit within the build space of 12" x 12" x 11.8"

- The printer may only be used for lawful purposes and for objects that are appropriate for a public library's environment.
- Printed objects must not infringe upon any third party's intellectual property rights.
- Objects must not be illegal nor can they be construed as having the intent to harm.
- The library reserves the right to refuse any print request at the discretion of the library staff.

### What kind of software do I need to use to design my 3D object?

We recommend using the free web-based program called TinkerCAD which is available on the Library's public workstations. Tutorials are on YouTube: [https://www.youtube.com/watch?v=KCaenAGeK\\_Q](https://www.youtube.com/watch?v=KCaenAGeK_Q). Creating a free account allows you access to the design space. Digital designs are also available from various file-sharing databases such as [Thingiverse.com](http://Thingiverse.com).

### What file format do I need for the library to print my design?

Your design must be a .stl file which our printer converts into the format it can use. Most CAD software (like TinkerCAD, Geomagic Design, Rhinoceros, SolidWorks, SolidEdge, Creo, etc.) create .stl files

### How long will it take my object to print?

It depends on several factors, including the size of the file and whether it will need supports to print properly. A cell phone case may take less than an hour to print, but a T-Rex skull might take 18 hours.

### Will you hold my object for me?

Yes, items printed on the 3D printer must be picked up by the individual who submitted the 3D Printer Request Form within seven days of being notified via email or the item will become the property of the Library.

### Where can I learn more about designing 3D objects?

You can find 3D things to print on Thingiverse or other sites. If you want to design your own 3D models, use software from the free web-based design site, TinkerCAD which allows you to convert your file to the .stl format.

### Can my object contain more than one color?

Yes, the printer holds two cartridges at a time, but your file must be set up to use two colors. Current filament colors will be included in the "Total Fee" email.

### What is the cost for printing?

Payment is due before the design will be printed. Patrons will be given the total fee before printing.

- 20¢ per gram for PLA filament with a minimum charge of \$1.00.
- Print jobs that are more than one hour will incur a charge of 25¢ per additional 30 minute increment.

### How do I print something?

1. Submit your completed "3D Printer Request Form", which is available on the Library's website under "Resources/3D Printer", and your .STL file to [NoviPublicLibrary3D@gmail.com](mailto:NoviPublicLibrary3D@gmail.com). You will be notified within 3 business days of the fees and filament colors available.
2. If you would like to proceed with your print job:
  1. Submit payment through "My Account" on our homepage by clicking on the "Fines" tab then clicking the PayPal button.

**3D PRINT FINES MAY BE PAID IN PERSON AT THE NOVI LIBRARY CIRCULATION DESK WITH CASH OR CREDIT CARD. FINES \$5 AND ABOVE CAN ALSO BE PAID FOR THROUGH PAYPAL**



My Account

3. Once you notify us of payment and color preference, your item will be added to the print queue.
4. Patrons will be notified via email when their item is ready to be picked up. Items must be picked up at the Check-Out Desk by the individual who submitted the 3D Printer Request Form within seven days of being notified or the item becomes the property of the Library.
5. NPL is responsible for mechanical equipment failure and will reprint an object at no additional charge whenever possible should failure occur.
6. Patrons will not receive a replacement print job if dissatisfied with color, scale, quality, design, or other options within the patron's control.
7. Reprints or additional copies of items must be requested within ten days of email notification, otherwise, a new 3D Printer Request Form and file will need to be submitted.

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