

Camp Internet: Extreme

25th Anniversary 3D Printer Camp- Resources

3D Printing Software-

Most 3D files must be prepared using 3D printing software in order to be 'understood' and printed properly by the 3D printer. The 3D printing software allows a model to be scaled, rotated, arranged on the build plate, and a whole host of other controls in order to be exported so the Creality3D Ender-3 Pro can print the object(s). At 3D Print Camp we will teach the campers to use **Ultimaker Cura** software for this. The Ultimaker Cura software is free to download and use and can be downloaded here- <https://ultimaker.com/en/products/ultimaker-cura-software>



3D Models-

There is a vast amount of 3D print files on the Internet. We will primarily use **Thingiverse**.

<https://www.thingiverse.com/>

We will set up each 3D print camper with their own Thingiverse login where they can save their favorite projects. Thingiverse will require the camper's parent to verify the account before the account can be used by the camper.

Visit the **3DP** web site for a list of '33 Best Sites for Free Files 2019'. You'll find links to 33 more web sites with free 3D print file content.

<https://all3dp.com/1/free-stl-files-3d-printer-models-3d-print-files-stl-download/>

The 3DP website also has other useful guides and comparison lists, so explore the site!



3D Modeling Software-

There are many modeling software programs that can be downloaded free or run from a browser. We will be using browser-based **TinkerCAD** at Camp Internet to create 3D models.

3D Print Filament-

The Creality3D Ender-3 Pro uses the FDM (Fused Deposition Modeling) form of 3D printing, that is to say, plastic is melted together. The most common type of FDM material is called PLA. PLA is a bioplastic that melts between 302°F and 320°F (150°C-160°C) and is what we will be using while printing in camp. The Creality3D Ender-3 Pro can print many other materials such as ABS, Woodfill PLA, Carbonfill PLA, etc.

Your Creality3D Ender-3 Pro uses 1.75mm filament. Be certain when pricing and ordering new filament for your printer that you ensure it is 1.75mm filament or it will not be compatible with your printer.

There are many sources online for PLA. We recommend finding a reliable source on **Amazon** that includes free shipping to Alaska to save money on shipping. There are also myriad online retailers who also sell quality PLA- **Matter Hackers**, **3D Universe**, **Proto-pasta**, **ColorFabb**, **HATCHBOX**, etc.

During 3D print camp we will be using standard PLA in various colors, Rainbow PLA, Color Changing PLA, and Shiny PLA.

