Submit a 3D Print

The Launch Pad has two Prusa 3D printers available to patrons for learning and entertainment purposes. Anyone with an Illinois library card registered at the Indian Trails Library may submit a 3D print. Members may submit 3D print jobs as part of their free weekly supplies. Maximum print time is **10 hours,** and your request may take up to **10 business days** to complete. Once a 3D model (**.obj** or **.stl** file) is downloaded, it can be submitted through **itpld.org/submit-3d-print-job**
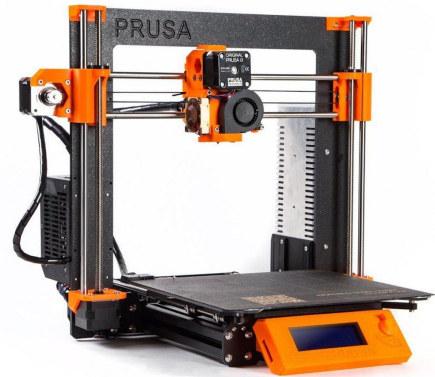
Finding and Creating Models

A 3D printer needs a 3D model (**.obj** or **.stl** file) to print. It *cannot* print from 2D images (jpg, svg, etc.). For beginners interested in making their own models, **Tinkercad.com** is a great way to get started. It has built-in tutorials and is entirely browser-based.

You can also download a premade 3D model from a website like **Thingiverse.com**. Thingiverse files often include important details (for example, if a model needs certain settings to print correctly) in the "Summary". When submitting a print, please include any relevant details from here in the "notes" field of the submission form.

Material Uses and Limitations

Our 3D printer uses PLA (polylactic acid), a biodegradable plastic from plant-based sources. This is good for decorative items, lightweight props, or small novelties. It *isn't* ideal for things that would be handling a great deal of force (i.e. wrenches made of PLA would wear out with use) or things that may be exposed to heat (i.e. a rear view window charm would melt in a hot car). Higher durability items would require different filaments, which we do not use.

Strength, Weight and Infill

A print's weight and strength is determined in part by the infill. By default, infill is set to 20%. Items with more infill are denser and take longer to print. Less infill may cause print failure because it can't hold itself structurally.
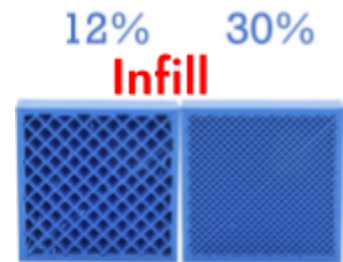
Supports

The printer can't print in mid-air. If there is an overhang, the printer can build support structures. Keep in mind that this counts for things such as upright holes, inner "embossed" shapes, and any "floating" parts of a print. Supports can be removed with pliers.
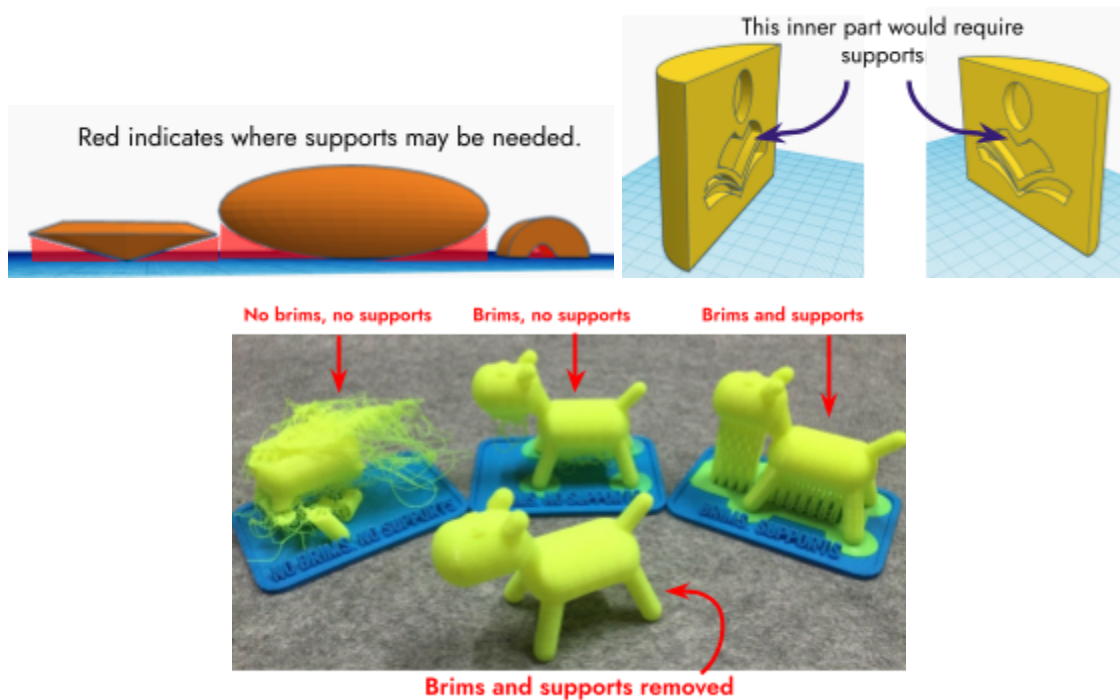
Failed Prints

Because consumer 3D printing is still in its early stages, experimentation and troubleshooting is not uncommon. Printers and filaments can behave differently depending on the 3D model, printer, and environment (humidity, temperature, air drafts, table bumps, etc.). If a print fails, it could be due to any number of reasons. If we determine that external factors aren't to blame, then it may be due to the model itself. If your print fails, we will contact you.