

A Glowforge is a laser cutter and engraver. Laser cutters create patterns and designs by cutting into materials. Laser cutting is a fabrication process that uses a thin, focused laser beam to cut and etch materials into custom designs, patterns, and shapes as specified by a designer. The Barrie Public Library has a **Glowforge Pro**.



Safety

The Glowforge laser cuts and engraves with a beam of high-intensity infrared light. The laser can generate extremely high temperatures in the material being cut or engraved. Improperly operating the Glowforge unit can cause fire, eye, or skin injury from laser exposure, or exposure to chemicals that may be health hazards. These can result in serious injury or even death.

- Always follow the instructions.
- Avoid touching the head or arm of the Glowforge while the power is on.
- Parts of this product are made of glass that could break under impact. Should that happen, be careful to avoid injury from broken glass pieces.
- In the event of any emergency or malfunction, unplug the power cord on the back of the unit. The power cord is intended to serve as the disconnect device.
- Do not stack materials; for example, attempting to cut two or more sheets of material at a time. Multiple sheets are more likely to burn.
- Do not place things on top of the Glowforge.
- Never leave the Glowforge unattended while operating – always stay within sight. Look inside frequently.
- When a print is complete, certain materials can remain hot. Allow them to cool down before you touch them.

In case of fire:

Under some circumstances, it is possible for the material inside the Glowforge to ignite and for the flame to spread outside of the area being cut or engraved.

1. Pull the plug on the back of the unit.
2. If that is not an option, then, if it is safe to do so, extinguish the fire with a fire extinguisher.
3. If the fire cannot be extinguished or if it spreads outside the Glowforge, call 911 and evacuate the building.
4. Do not operate the printer further.

Materials

Materials that are not laser-compatible may catch fire, emit hazardous smoke and fumes that cannot be controlled by exhaust or filtration, and are a health hazard to you, other library patrons, and the Glowforge printer.

The Barrie Public Library reserves the right to determine whether the following materials are suitable for use in the Glowforge:

Plywood is sometimes made from materials that release irritating, toxic, or corrosive fumes during printing that could harm you or the Glowforge. These include the glue which binds the wood together, the chemicals added to provide weather resistance, and surface finishes to improve the plywood's appearance. In addition, some plywood is prone to catching fire, which could be hazardous to you, the Glowforge, or your surroundings.

Hardwoods are sometimes coated with stains or finishes that can release toxic or corrosive fumes during printing that could harm you or the Glowforge. Some species of hardwood can create fumes or dust that is irritating or triggers allergic reactions. Some hardwood is prone to catching fire which could be hazardous to you, the Glowforge, or your surroundings.

Plastics like acrylic and acetal are laser-compatible; many more, like vinyl, PVC, ABS, and HDPE can melt or release toxic or corrosive fumes that could harm you or the Glowforge. It can be difficult to tell the difference between types of plastics. Even with laser-compatible plastics, some sizes are susceptible to particularly hot, intense, and long-lasting fires, which could be hazardous to you, the Glowforge, or your surroundings.

Leather is sometimes prepared with toxic heavy metals that can be released in the air during the printing process that could harm you or the Glowforge.

Cardboard and Paper are extremely prone to catching on fire. They are sometimes prepared with inks or protective chemicals that can release toxic or corrosive fumes during printing that could harm you or the Glowforge. They may have metal staples or fasteners that can redirect the laser beam, causing damage to the Glowforge.

Fabric is sometimes made from materials or made with dyes and inks that can release toxic or corrosive gasses during printing that could harm you or the Glowforge. Some fabrics are extremely flammable, which could be hazardous to you, the Glowforge, or your surroundings.

Other Materials we can't accept include metal, glass (for cutting), food, personal items (like laptops, tablets, etc.), or any unknown material.

Glowforge company has a line of materials designed for use with the Glowforge printer, called "Proofgrade" materials. This includes hardwood, acrylic, leather, and more. The Glowforge can automatically detect Proofgrade materials that have been tested for laser compatibility.

Glowforge recommends "Proofgrade" materials for automatic settings and perfect results.

It is your responsibility to verify that any material you use will be safe.

Maximum Material Dimensions

Material width:	20" (51.5 cm)
Material height (with tray):	0.5" (1.3 cm)
Material height (without tray):	2" (5 cm)
Material depth:	Unlimited for Pro