Laser Engraver Overview

The laser engraver is **free** to use. You are expected to bring in all materials, both for testing and the final product. Testing is highly encouraged.

Accepted Materials			
Acrylic*	Cotton*	Mat board*	Soap
Alumamark	Denim	Marble	Stainless Steel w/Cermark
Anodized Aluminum	Fleece*	Painted Brass	Twill (**Cut only**)
Cardboard*	Glass	Plastics*	Wood*
Cork*	Leather*	Rubber Stamps*	

*Engrave and cut. All other materials can only be engraved.

If your desired material is not listed, email InspirationStation@GeaugaLibrary.net and check possibilities.

Epilog Laser Mini 24 Laser Engraver

- Great for engraving a variety of materials and cutting some.
- Engrave flat or cylindrical objects
- Accepted files type: **PDF**
- Materials must be smaller than 12" H x 24" W x 5.5" D.

Fire Safety

- NEVER LEAVE THE ENGRAVER RUNNING UNATTENDED. You will lose the privilege to use the laser engraver in the GCPL system.
- Always have the air compressor and fan on when using the laser engraver.
- Water bottle, fire blankets, and fire extinguisher available for fires.
- Patrons under 15 years old need a guardian to use the machine.

Laser Engraver Process

1. Design with preferred design software at the chosen size for the material.
   a. Use Adobe Illustrator in the maker space to create cut lines.
   b. Cut lines must be **0.1pt** stroke thickness.
2. Turn on the laser engraver.
3. Place the material in the engraver.
4. Focus the material using the Focus Tool.
   a. Material should be barely touching the Focus Tool to focus the laser.
   b. Flip the focus tool back up before engraving.
5. Reset the home location to center on the material (optional).
   a. If skipped, the home location is the top left corner.
6. Plug in your USB drive to the computer. Open your file with Adobe Acrobat.
7. Click **Print**
   a. Click **Properties**.
   b. Update the Epilog Engraver settings according to the material. Refer to the table on the wall in the makerspace or the file on the desktop of the laptop.

      i. Click the check box next to "Center Engraving" if you changed the home location to the center of the material.

8. Once satisfied, send the job to the printer by clicking **Print.**
   a. Make sure the print settings are "Actual Size" or "Custom Scale 100%", **not** Fit or Shrink.
9. Wait for the job to load. The green light on the engraver will stop flashing when ready.
10. Turn on the air compressor and fan.
11. Press **Go**.
12. The machine will engrave and then cut, depending on the project.
    a. DO NOT LEAVE THE MACHINE.
13. Once finished, remove the material from the machine.
14. Repeat steps 3-13.
15. When finished, turn off the air compressor, fan, and laser engraver.

Laser Engraver Cylindrical Process

1. Design with preferred design software at the chosen size for the material.
   a. Turn the design **90° to the left** to match the orientation of the rotary attachment.
   b. Save as a **PDF**.
2. Unplug the laser engraver and make sure it is turned **off**.
   a. If the rotary attachment is plugged in while the laser engraver is on, **it will destroy the rotary attachment**. You will be expected to replace the attachment.
   b. You may need to lower the bed in the laser engraver before adding the rotary attachment.
3. Remove the mesh bed and the waste tray from the machine.
4. Plug in the rotary attachment.
5. Plug in the laser engraver and turn it on.
6. Follow the steps 3-14 above.
7. When finished, turn off the air compressor, fan, and laser engraver.
8. Remove the rotary attachment from the machine. Replace the waste tray and mesh bed.

Resources

- Epilog Laser Knowledge Base: http://support.epiloglaser.com/knowledgec.aspx?cid=8205
- Epilog Sample Club: https://www.epiloglaser.com/resources/sample-club.htm

Full Written Tutorial   Video Tutorial   Cylindrical Video Tutorial