Frequently Asked Questions (FAQ)
Laser Cutting (Epilog Mini/Helix 30 Watt)

1. **What is the laser cutter?**

   The laser cutter is a computer controlled cutting device. It uses a laser (a finely focused beam of light) to burn into flat sheet materials. The laser cutter can make both engravings and through-cuts. Cuts are controlled by a computer file set up using design software, such as Corel Draw or Illustrator.

   You should use the laser cutter to make intricate or variable cuts that are impossible or very difficult on traditional shop or hand-cutting equipment.

2. **Who can use the laser cutter?**

   The laser cutters at the Library are available to resident cardholders and other area residents. The laser cutter is not to be used without the supervision of authorized library staff.

3. **How do I get certified to use the laser cutter?**

   Certified users must attend one of our certification classes to use the laser cutter. All jobs must be approved by authorized library staff prior to operating the machine. When available, the laser cutter may be used for walk-in cutting; however, reserving the machine is highly recommended. Please check with a librarian for available reservation times.

4. **Can I reserve the laser cutter ahead of time?**

   Yes. Certified users can reserve time on the laser cutters. When available, the laser cutter may be used for walk-in cutting; however, reserving the machine is highly recommended. Please check with a librarian for available reservation times.

5. **When is the laser cutter available?**

   Generally, the laser cutters are available for use from the time the Studio opens until 60 minutes before closing. The laser cutter schedule is posted online listing times set aside for reservations and classes. Times that are unreserved may be available for walk-in use or reservations.

6. **What materials can I use on the laser cutter?**

   See the "Approved Materials List" for specific materials. Materials must be non-reflective and flat.

7. **Can I bring my own materials for laser cutting?**

   Yes. All users may bring in their own materials as long as the items are listed on the "Approved Materials List". Materials must be approved by authorized library staff prior to putting it in the laser cutter.

8. **Does the Studio provide materials for laser cutting?**

   Yes. The Studio provides material for a small fee. The fee covers the cost of the item and allows us to offer materials on-demand. Items are listed in the library's "Available Material List," which also includes pricing.

9. **Where can I get materials for laser cutting?**

   Common resources are Inventables.com and Laserbits.com.

10. **What's the thickest material the laser can cut through?**

    The laser cutter can cut through materials of 1/8". Also note that thicker materials can still be engraved as long as they are flat and able to fit in the cutting bed.

11. **What's the biggest sheet size that will fit on the laser cutter?**

    The laser cutter bed is 12"x24". It is recommended that larger sheets be cut to slightly below these dimensions to ensure a proper fit.

12. **What is the difference between raster engraving and vector cutting?**

    Raster engraving can best be described as high resolution printing, but with a laser. The laser will not cut through the material but rather engrave your design on the top. A good example of raster engraving is an award plaque. Different speeds and power levels will engrave different materials more successfully.

    Vector cutting uses a narrow beam to cut through a material. This beam will follow hairlines (lines less than 5 thousands of an inch thick) in a path. Vector cutting is normally used to cut completely through the materials such as wood, paper, and acrylic. In addition to speed and power levels, vector cutting uses frequency (how rapidly bursts of energy are sent to the material to cut).

13. **Can the laser cutter cut through metal?**

    No. It can engrave coated metals (anodized aluminum, for instance) but it is not powerful enough to cut metals.

14. **Is there a charge to use the laser cutter?**

    There is no charge to use the laser cutter only for the material purchased through the library.

15. **Can I use programs other than Corel Draw with the laser cutter?**

    Yes, but some programs may behave unexpectedly. For instance, anything printed directly from Inkscape will be treated as a raster image, even if a hairline is used. An Inkscape file needs to be exported as a PDF and then printed from Adobe Reader (FoxIt will not work) for hairlines to be processed as vector cuts.