Guide To Laser Cutting at Frisco Public Library

Get Started

- Bring your design file as:
  - Cutting: .SVG or .PDF
  - Engraving: .JPG or .PNG
- Bring your blank materials to the library
- Check in at the 1st floor Ask Us desk
- Access provided on a first come, first serve basis

Tech Notes

- Maximum size: 24 in. x 16 in. x 6 in. high
- Cut up to 1/4 inch thick wood and acrylic
- Cylinders with up to 3 inch diameter
- Material:
  - MDF
  - acrylic
  - wood
  - paper / cardboard
  - leather
  - glass
  - ceramics
  - natural fibers
  - metal
- Laser Cutter Machine:
  - Full Spectrum Laser P-Series
  - 100 watt
- Software Driver:
  - Retina Engrave3D.

Laser Equipment Rules

- Access provided on a first come, first served basis
- Users must be at least 18 years old and sign a liability waiver.
- You must be able to complete job and clean up before library closing time.
- Objects must not infringe upon any third party's intellectual property rights.
- Objects must not be illegal nor can they be construed as having the intent to harm.
- The Library reserves the right to refuse access at the discretion of library staff.
- Staff does not create, modify, or correct designs for users.
- The Library is not responsible for machine accuracy or errors.

Some Common Questions

What materials are available at the library?

The Library does not provide blank materials. Suitable materials can be found at home improvement, hobby, and online stores.

Can I use plastic in the laser cutter?

You will want to bring in proof of the type of plastic you are wanting to use (product label or similar). Approved plastic types include PLA and acrylic. Chlorinated plastics (PVC, vinyl, etc) cannot be used with the laser cutter.

How long does it take?

Most projects take an hour to set up and complete. Times vary greatly and are dependent upon material type, size, and complexity.

How can I learn to use the Retina Engrave 3D software?

Check out this 3 minute video from Full Spectrum Laser.

What if I ruin my material?

Always bring a test piece of the same material to fine tune the laser cutter settings first.

Is there somebody there to help me?

Library staff are there to help you get set up, started, and coach you through the basic operations. We also have a manual available at the laser cutter.

How do I create my own design to use with the laser cutter?

Vector graphic software (SVG) such as Adobe Illustrator, Inkscape, Vecteezy, or Tinkercad. Engraved designs can be created in any software that can save the design as a .jpeg or .png. You can even create a design in a word processor for raster engraving.

What about files saved as .ai, .cdr, or .xps?

These file types used by Adobe Illustrator (.ai) and CorelDraw (.cdr) can usually be opened with the Inkscape software at the library and sent to the laser cutter. If it is a commonly used file type for laser cutting, we likely have an application that will open the file to send it to the laser cutter. We recommend bringing the original file along with a PDF version.