



## Laser Etching

Laser Etching is an easy way to customize a product. The laser recognizes anything with a stroke above .01" as an etch and anything smaller than .01" will try to burn through.

## Design

The equipment in Makerlab is relatively easy to use, but there are two elements that can be challenging for new designers 1) What should I put on my project? 2) Do I have the skills or do I want to learn the skills that will allow me to create a project that matches my vision?

We encourage you to design your own artwork, but you may also download a copyright free image or pay an artist for his or her work. Some of the free websites we often use are monogramframes, vectorstock (free vectors), or vecteezy.

## Inkscape Document Sizes

- File > document properties, set units to inches
- Project Dimensions (listed horizontal x vertical)
  - Coaster: 3.75 x 3.75" (Center Engrave)
  - Notebook: 7 x 9" (Center Engrave)
  - Pint Glass: 5.75" x 9.75"
  - Wine Glass: 4.25" x 10.875"

## Picture

You can take your favorite picture or a graphic you like from one of the resources, and etch it into your glass. The steps are simple:

- Find your image; images with high contrast or/and are already in black and white help. I tend to search clip art sites for "silhouette" as these turn out great for the following steps
- In Inkscape choose File > Open (your picture). Choose embed from the pop-up window
- Select your picture and go to Path > Trace Bitmap
- Check the live preview button and see which mode works best. Typically the default is a really good starting point, but the closer you get to 1 on brightness cutoff, the more black it picks up. Conversely, the closer to 0 you get, the more white will come out.

- Press the apply button
- Move the new vector we just created and delete the jpg image

Add any additional text, images, or embellishments and your file is ready to be etched

## Monograms

### Download a Monogram

- Sites like monogramframes.com are good for absolute beginners who want to create a custom project quickly

### Make a Monogram in Inkscape Text

- Use the text tool ("A") along the left menu
- Type the text you would like in your monogram
- With the text tool still selected, double click in between the letters of your monogram which will highlight the text so you can change your font
- Change the font in the upper left corner

### Shape

- Use the shape tools on the left menu to create a circle or diamond
- If you would like a perfect circle or square, press F1 on your keyboard which will select the move tool, then click on your shape.
- The W & H proportions will appear at the top of the screen

### Advanced

- Add an additional shape to outline your monogram
- Add an embellishment (e.g. laurels, berries, branches...etc)
- The font is everything, so as you get more advanced, or would like to spend more time researching fonts, you can go to free resources like
  - o [dafont.com](http://dafont.com)
  - o [fontspace.com](http://fontspace.com)

## Finishing Steps

- Rotate the image as necessary
- When finished, file > save as> PDF
- Save to Desktop or USB Drive

