adafruit learning system

Laser Custom Stamps

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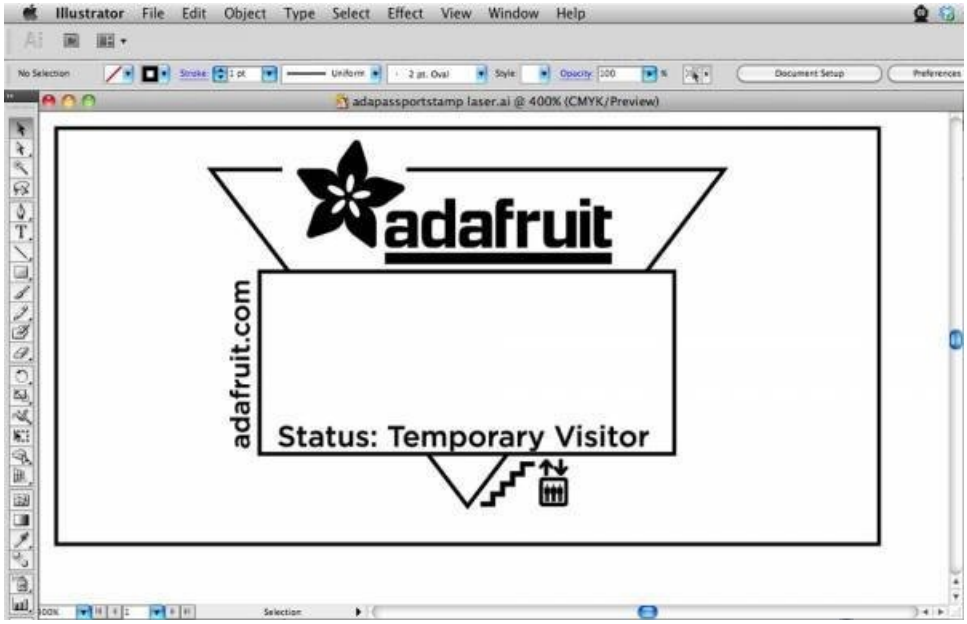
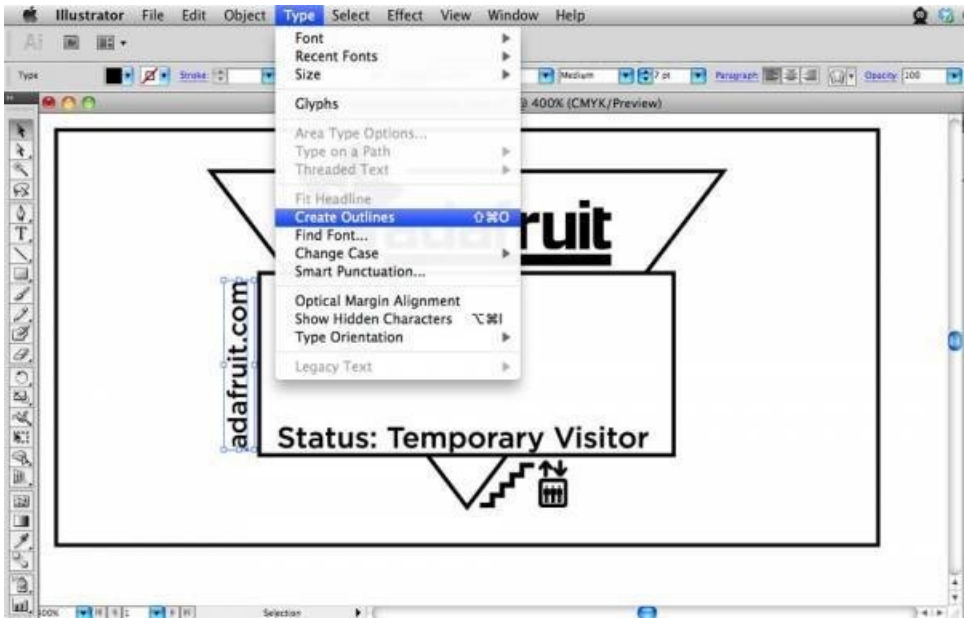
Guide Contents

Create Your Artwork

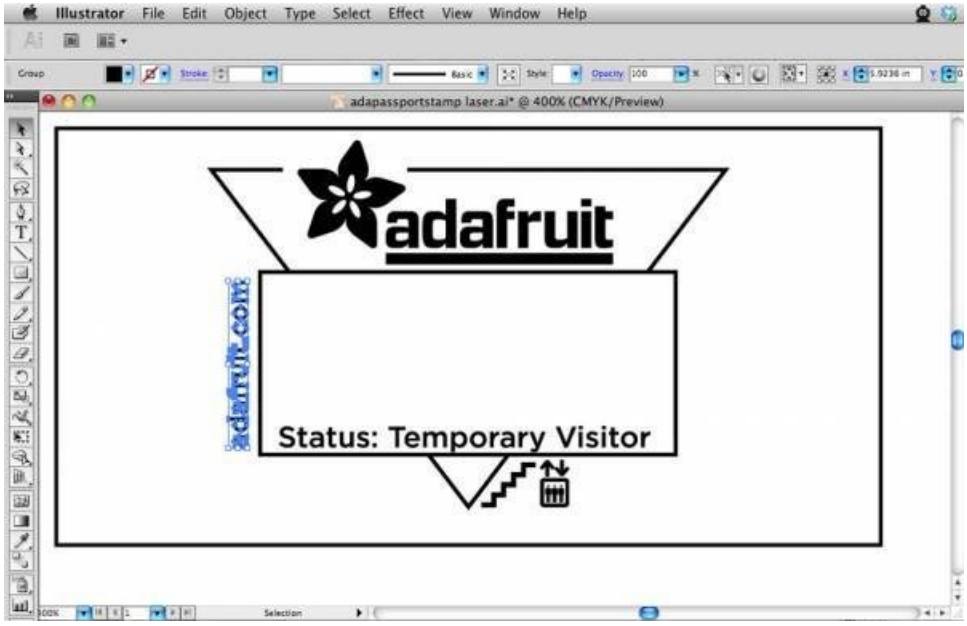
Create your own rubber stamp on a laser cutter! Perfect for hackerspace passports (http://adafru.it/769), outgoing packages, and other fun stuff. Usually passport stamps have a little symbol to indicate how you entered the country (a little plane, train, boat, or car), so we added an elevator and stairs as that's how visitor's enter our space! You can download the template for this stamp on Thingiverse (https://adafru.it/aYP).



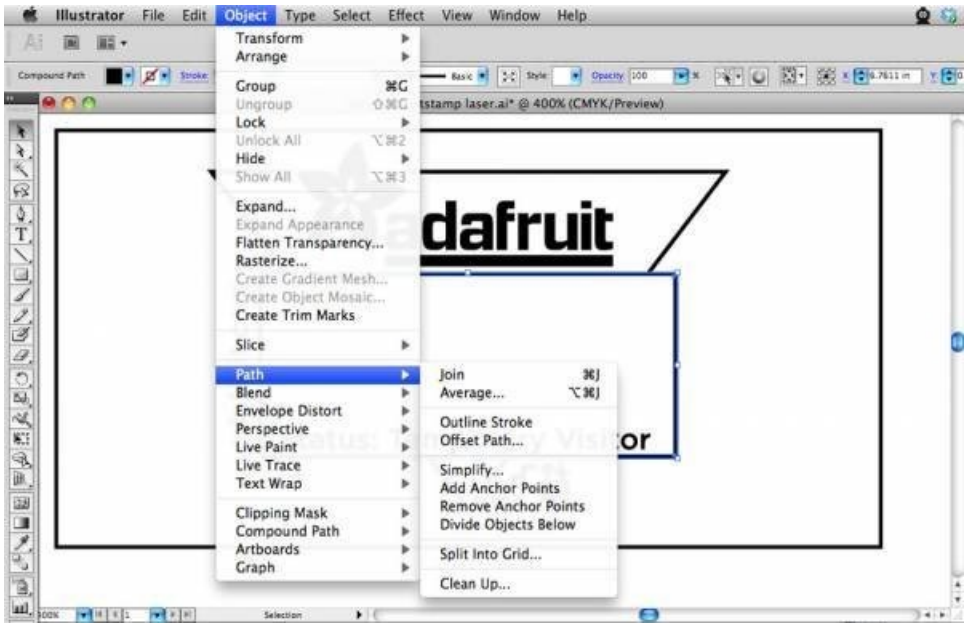
First you will need some artwork to stamp. Create your artwork in your favorite vector program. We like Illustrator but ultimately use Corel Draw to output to the laser cutter.



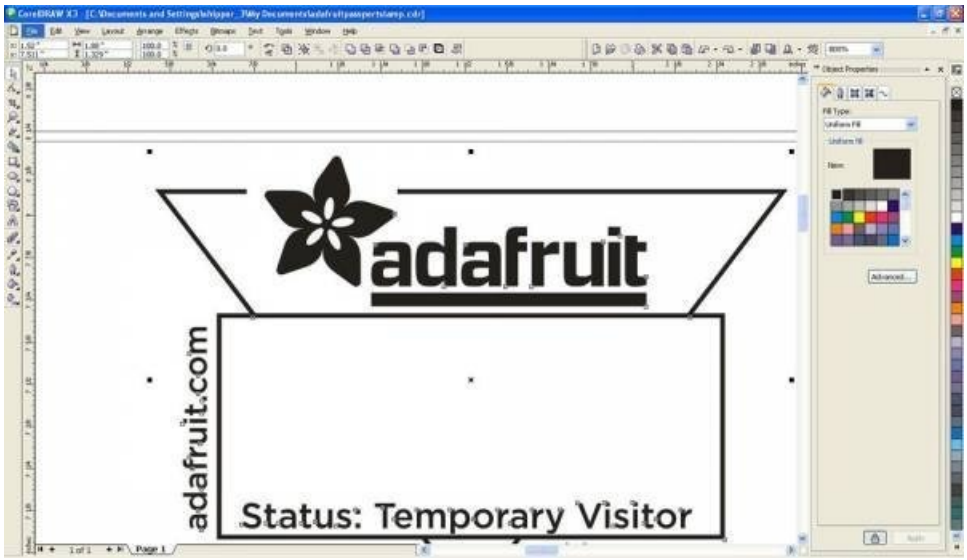
If your artwork contains text, be sure to "create outlines" to convert the font to a filled area.



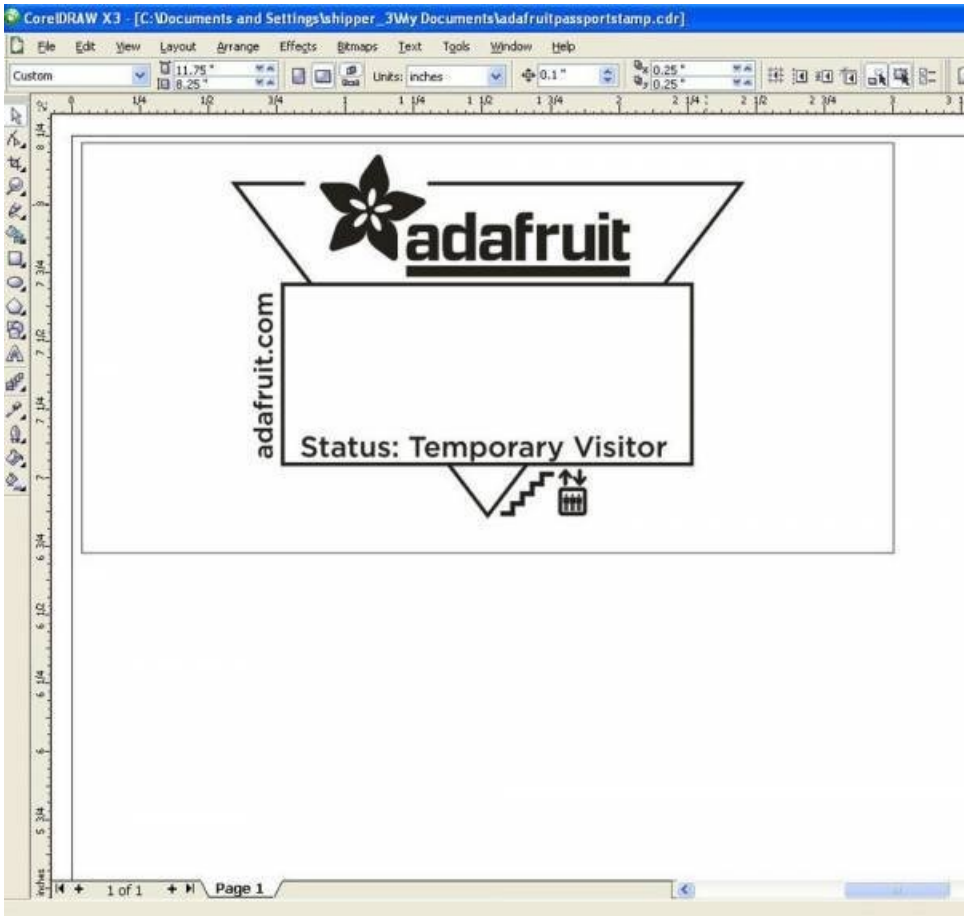
When you've successfully converted to outlines, selecting your text should look like this.



It's also advised to outline any paths you wish to include in your stamp. In Illustrator use the "outline stroke" option. We save as an Illustrator 10 file for best results importing into Corel Draw.

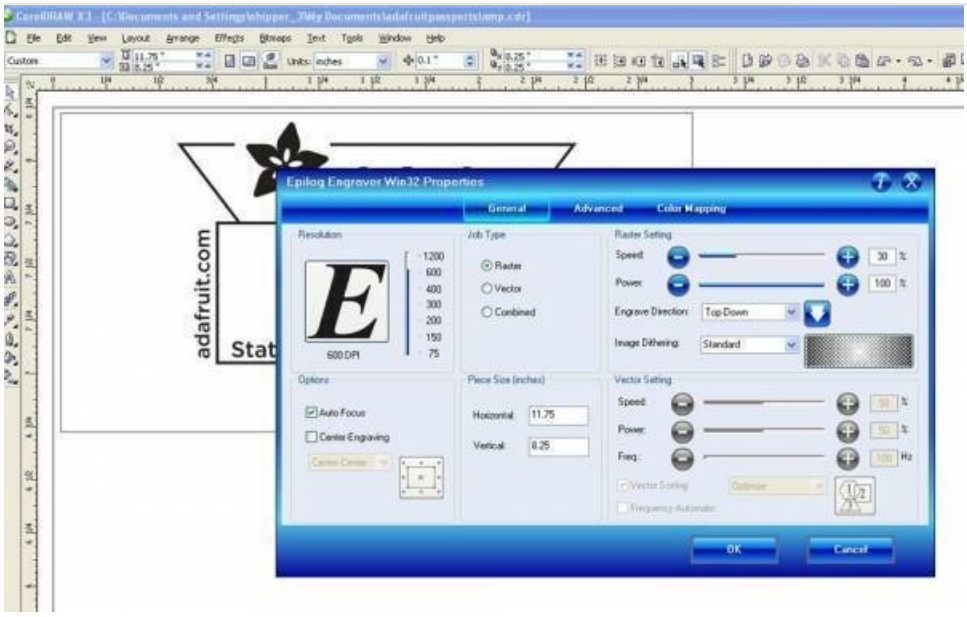


Moving over to Corel Draw! Import your artwork into a file whose dimensions match your material. The rubber we got from Laserbits (https://adafru.it/Ccd) is 11.75" x 8.25". Some settings may have not translated into Corel Draw perfectly so double check your artwork has a completely black fill.

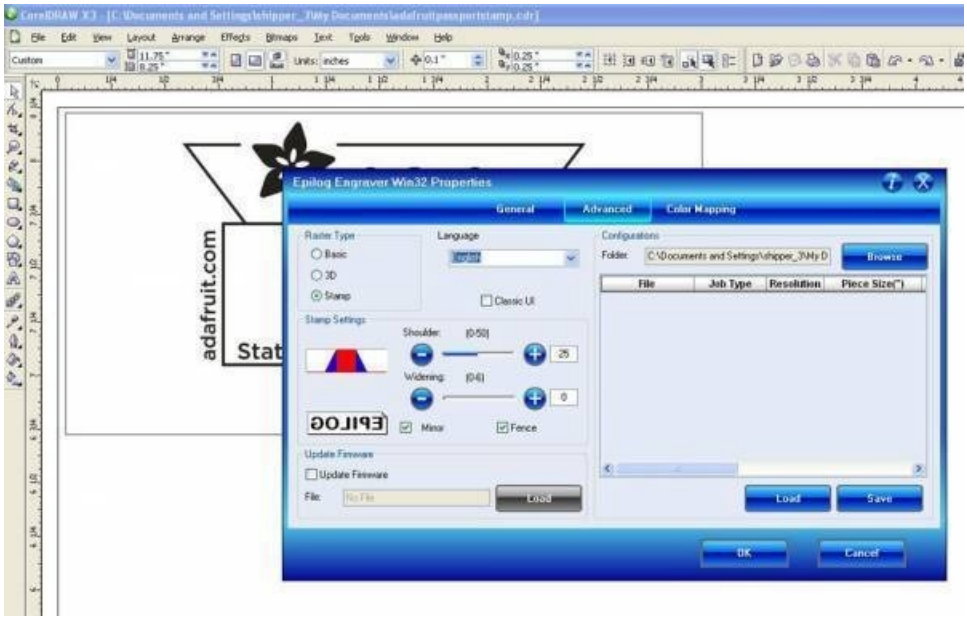


We followed this Epilog tutorial which says to put a "fence" around your stamp(s). Use a hairline box the same size as your stamper's sticky pad.

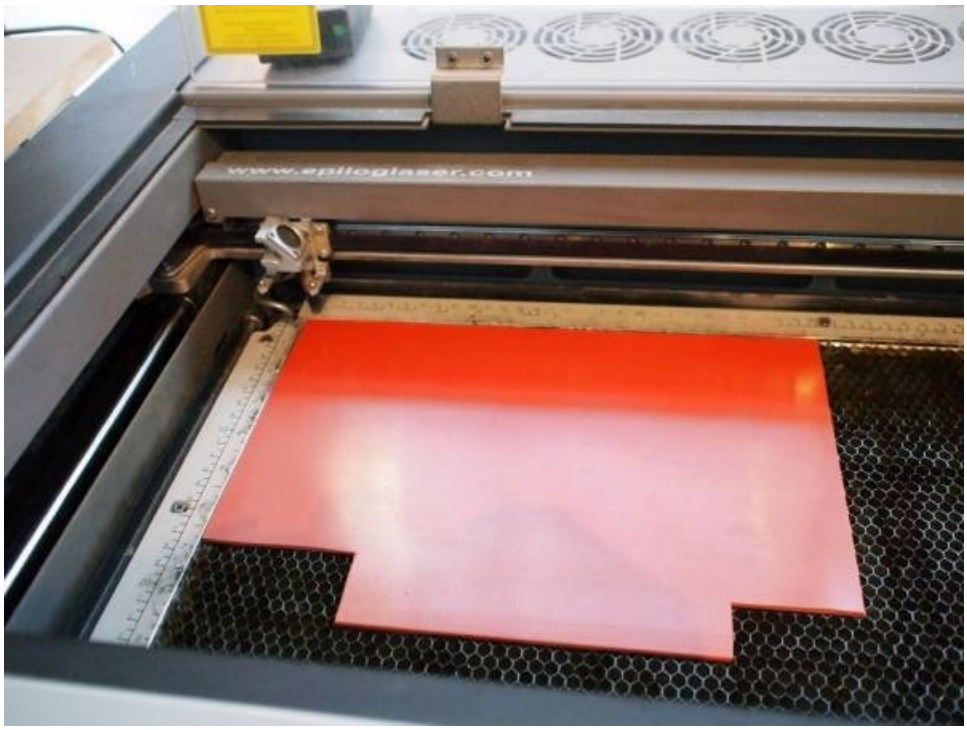
Print Your Stamp



On to print! In your print settings/laser driver settings, these raster settings work well on our 35-Watt laser. Consult your laser manual; ours includes recommended settings for rubber stamp material.

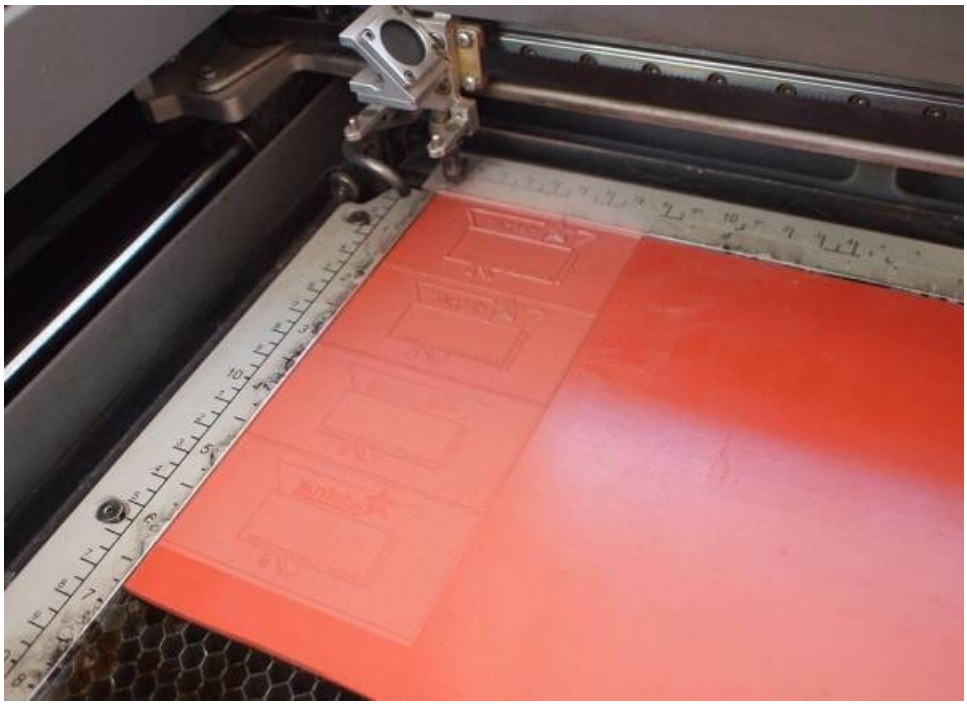


Now the stampy part: under the "advanced" tab in our Epilog settings, there's a stamp mode. This allows you to employ "shoulders" to strengthen your graphics when etched into the flexible stamp material, as well as mirror your stamp within the "fence" you made earlier.

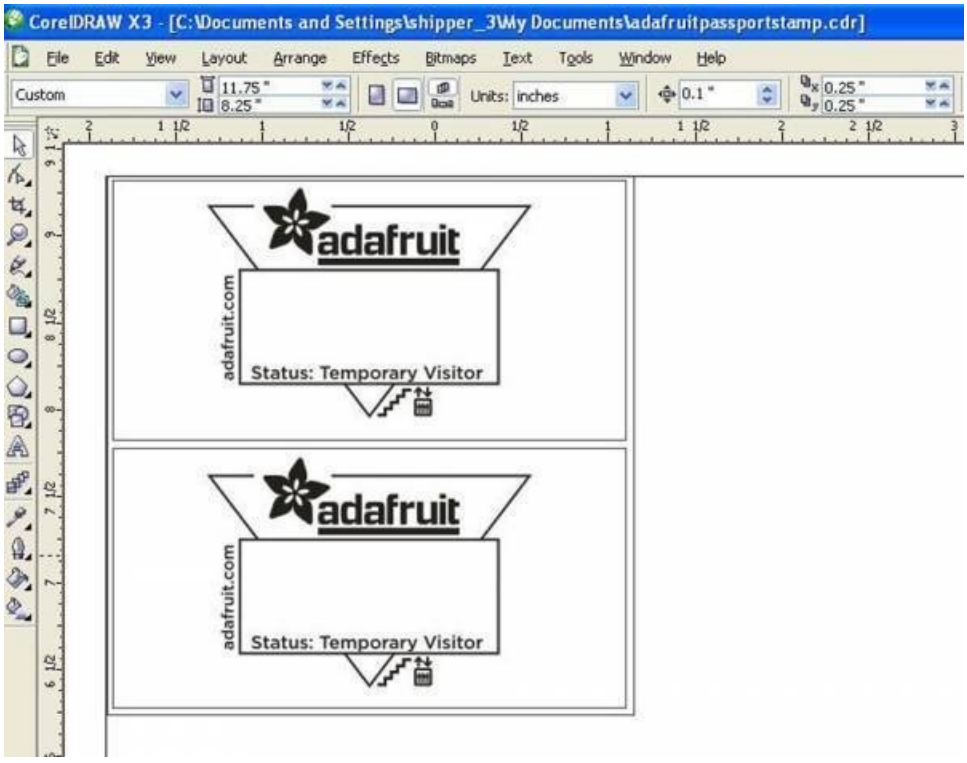


Place your material in the laser. Double check your document size, printer settings, and material are all the same in dimension.

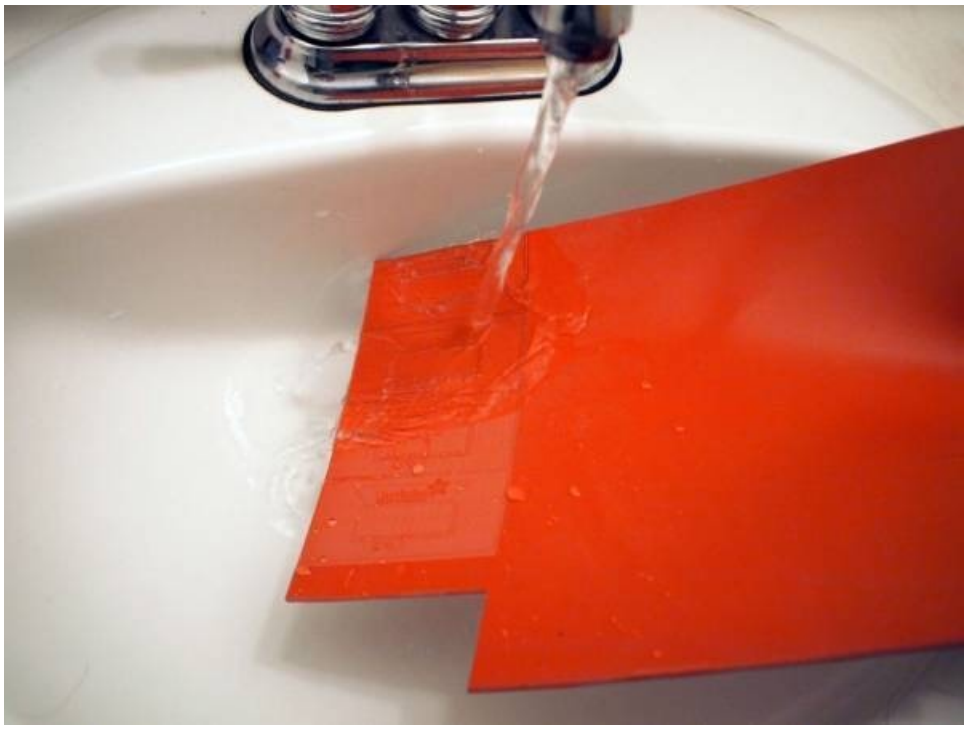
Go! You will make multiple passes to achieve the desired depth.



We lasered four stamps to show you the difference between 1-2-3-4 passes.



Remember if you're making more than one stamp to include a fence around all of the stamps!



Rinse your rubber.

This is what the four passes look like starting from the top: four, three, two, one.

This is our first stamp, which had three passes from the laser. It worked ok but had a bit of haloing around the edges! We got our wooden stamper from Laserbits (https://adafru.it/aYR) but you can make your own from wood or whatever's around!

Create Your Stamp

Cut your stamp out along the fence if that is your preference. You can vector cut this on your laser cutter if you like, but we found it a bit prone to flame while vectoring, plus the rubber is very easy to cut with scissors.

We cut ours down further after looking at commercial stamps, following the contours of the design.

Cut your stamper's sticky pad cover if you've cut your stamp smaller than the stamper.

Peel and stick your stamper to your rubber stamp.

Here's how to stamp a hackerspace passport! You will need some stamp pads.

Ink your main stamper you just made.

Be sure it's fully inked!

Press the stamp firmly and evenly into your hackerspace passport.

Here's what the stamp looks like before the addition of the day's date.

Set a date stamper to today's date.

Ink the date stamp! We chose a contrasting color.

Stamp the date!

Your stamp is done! Repeat and enjoy!