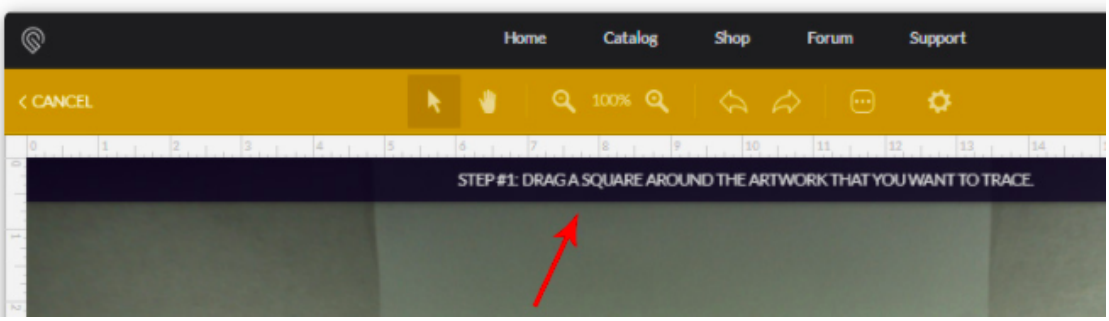
The **Trace Tool** in the Glowforge User Interface can be used to scan printed artwork for engraving, and to create cut lines around the artwork, or inside the artwork, by clicking with the mouse.

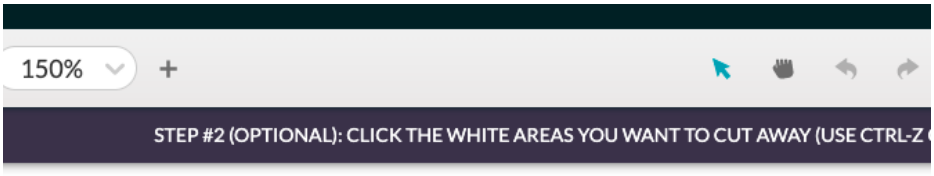
Procedure to scan a physical drawing and add cut lines:

Turn on the laser cutter. The switch is on the lower right back-side of the cutter.
Turn on the exhaust system, which is the white box on the floor to the left of the cutter. Make sure the fan is on.

1. **Black ink** drawings on **white** backgrounds will give you the best results for tracing. *(Smudged lines and pencil drawings are going to give you smudged results with the scan.)*
2. Turn on the Glowforge and let it run through the startup calibration. Start the exhaust fan.
3. When it's done, open the lid and place the image to be scanned under the lid camera. If the paper is "crinkled", secure the paper flat to the "crumb tray" with magnets or tape to reduce shadows.
4. In the Glowforge app, choose the "trace" button in the upper left corner (next to "new design")
5. You will see your design in the Glowforge on the bed.
6. Click and drag a square around the artwork that you want to trace. Handy instructions will appear in the black bar to guide the process.



7. After you drag the box out, the screen flips to the "Add Cut Lines" step.



This step is optional if you want to place cut lines or cutouts around the drawing.
Use the Zoom tool at the top to Zoom in so you can see what you are clicking on.

On this screen, you can also use the CTRL/CMD + Up and Down Arrow Keys to change the amount of data that is being picked up for the engrave, if needed. To add cut lines, you will want to click on any WHITE areas that you want to remove from the image.

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The algorithm that creates the cut lines is searching for edges where there is a color change, from white to black, or black to white, and inserts a cut line in between them.

If you click directly on a black line that has white on either side, you will see two cut lines created - one on either side of the line, where the colors are changing at the edges

8. Click the “place artwork” button in the upper right corner of the screen and bring the material you will be cutting over to the laser cutter.

9. Open the lid and remove the paper and magnets. Put in the material that you want to cut and engrave on. Head back to the computer.

10. Place the artwork where you want it on your material and send it to Print, by clicking on the “print” button in the upper right corner of the screen.

11. Follow the instructions on the screen informing you (A)of the time of the cut and (B) to press the white button on the laser cutter.

You **MUST** sit and watch the cutting the entire time in the unlikely event of the material catching fire. Should it catch fire, immediately pull the plug from the wall socket under the cutter.

After the cut is complete, the material **MUST** be left in the cutter with the exhaust filter running for a time EQUAL to the cut time to be sure to remove all exhaust fumes.

Taken from here.