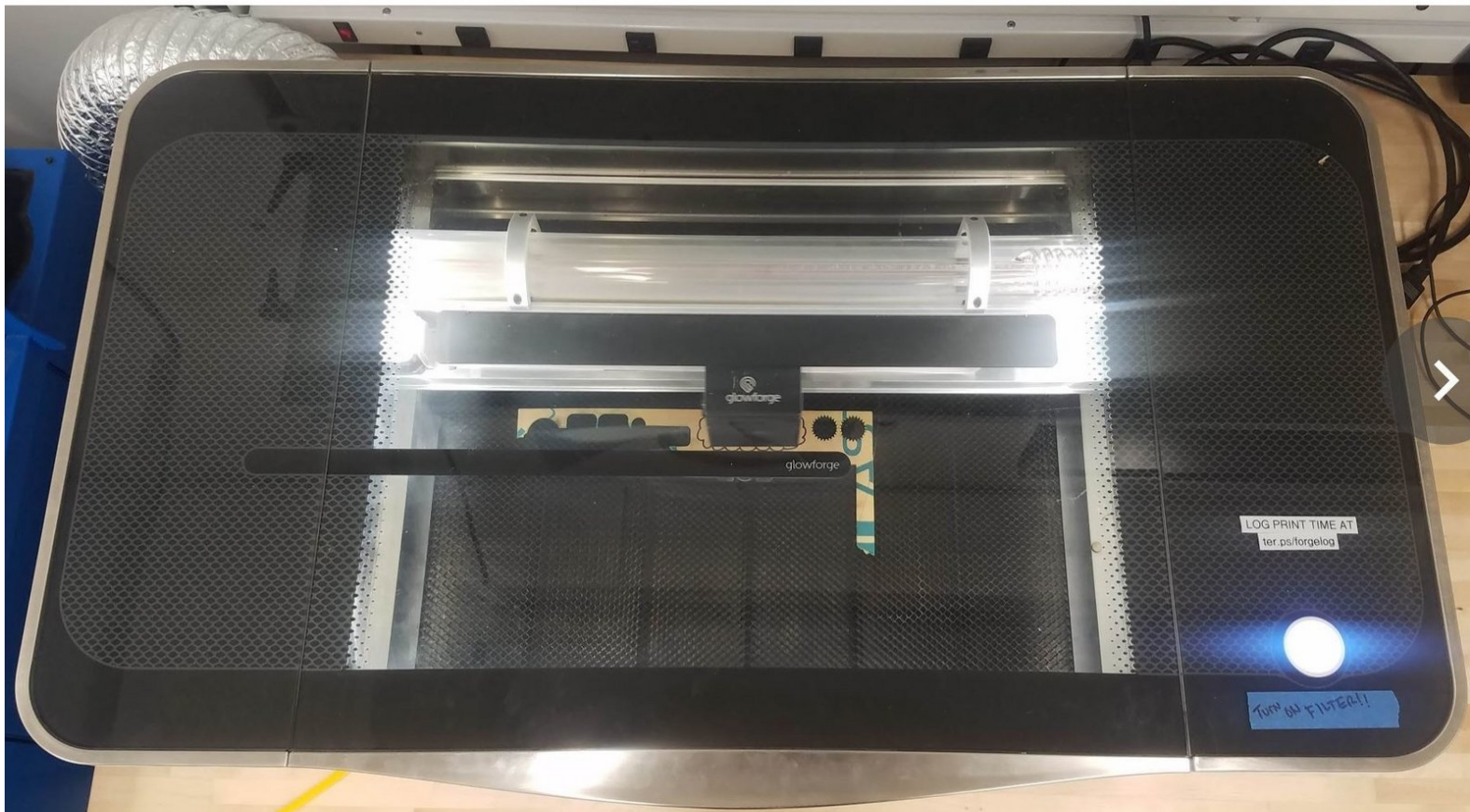




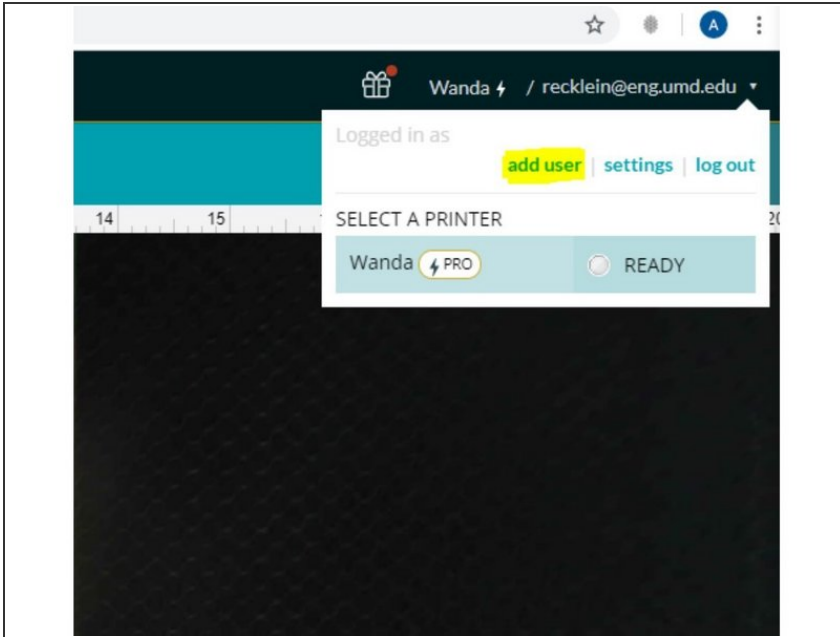
# Laser Cutting with the Glowforge

Learn how to use the Glowforge, some unique features and maintenance.

Written By: Ashley Kathleen Recklein

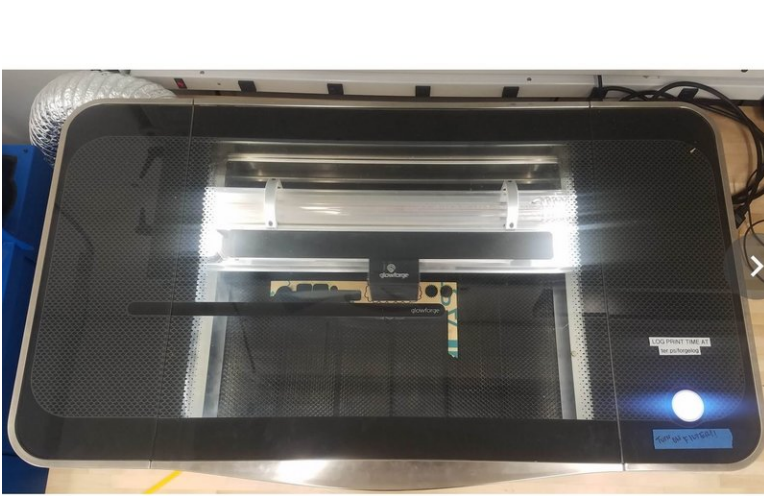


## Step 1 — Creating an Account



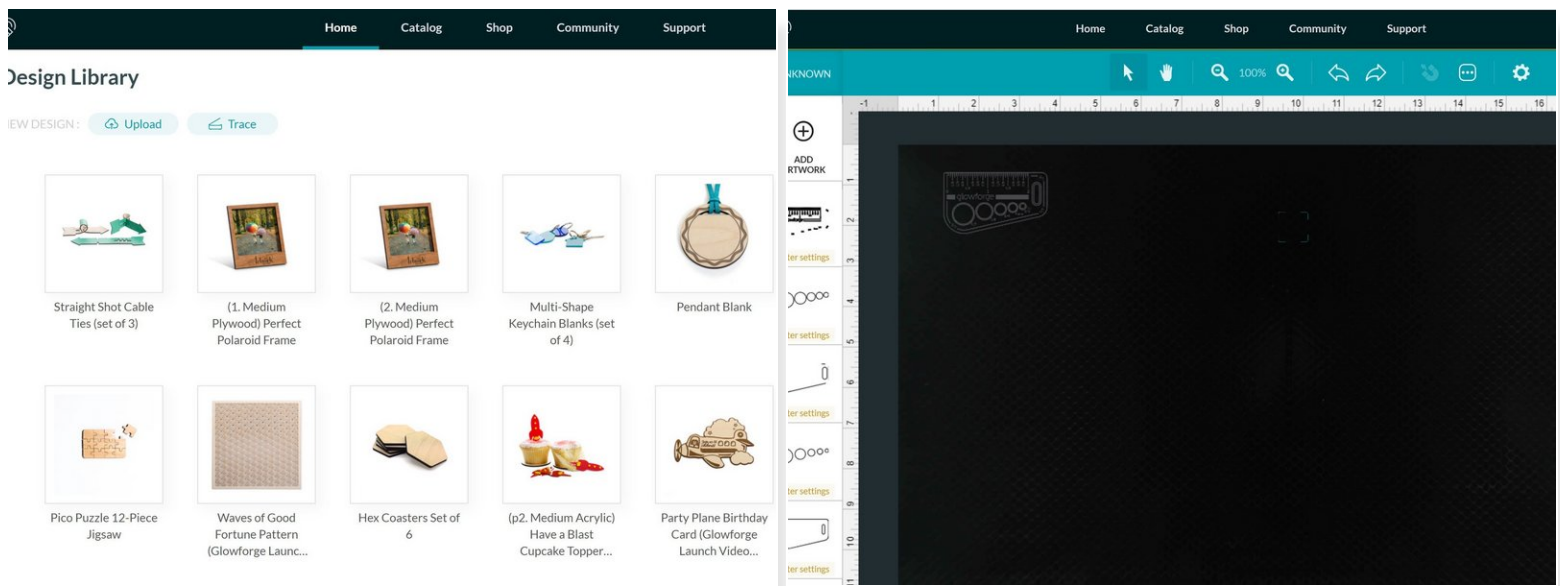
- Before you can begin Laser Cutting you must set up an account with Glowforge. You can request permission from a Lab Coordinator or have someone with an account add you as an additional user

## Step 2 — Starting the Machine



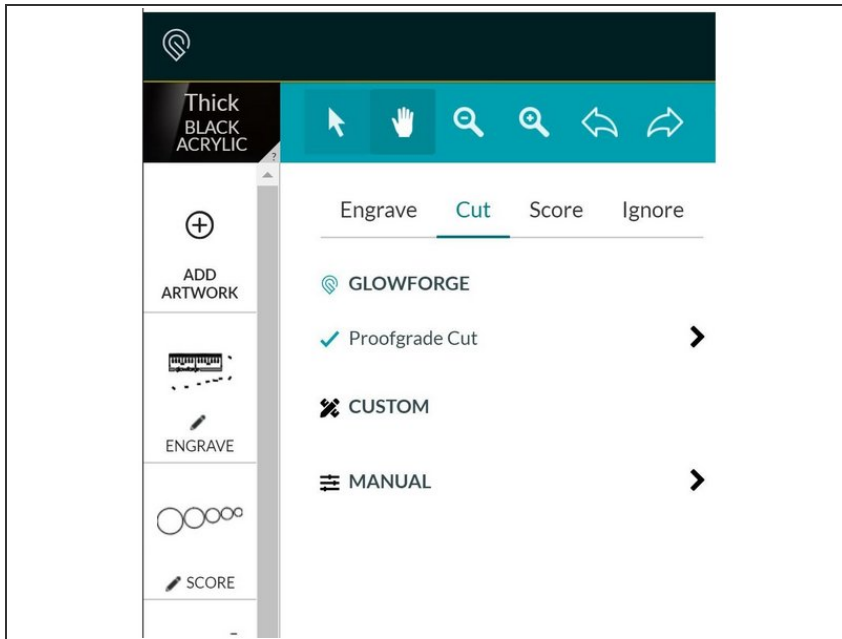
- Turn on the Machine using the switch located on the backside of Laser Cutter
- Make sure the vacuum filter is attached and turn on the air filter using the cover that is located on the epilog before starting a job
- Place the stock in the machine
  - The maximum cutting dimensions of the Glowforge Plus are 11 in. x 19.5 in
  - Materials of thickness 1/4" are called Thick while 1/8" is Medium and 1/48" is Thin
- ❗ While Glowforges do have the capability to cut out food items this specific machine is not to be used for that purpose

## Step 3 — Setting up- File Layout



- You can go to <https://app.glowforge.com/> and log in once you have an account. Our Glowforge's name is Wanda
- Glowforge has a catalog of different designs that you can select from or you can upload your own project
- Once a file is selected, you will actively be able to see the bed of the laser cutter using the embedded camera
- Here is where you can move, rotate, and scale your design, you may also import additional files to cut on the same project

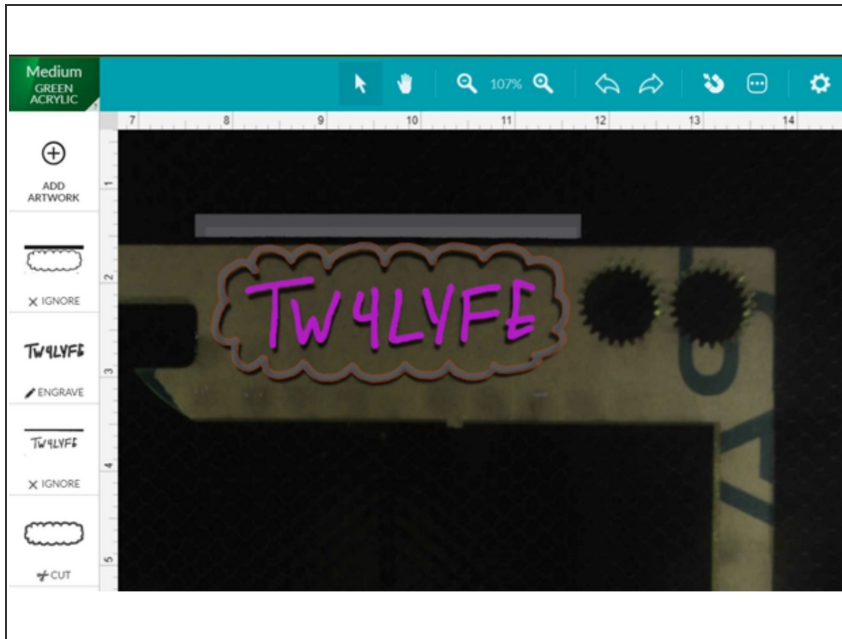
## Step 4 — Setting Up File- Material Parameters



- In the top left hand corner you will be able to select the stock material you wish to use and that will load the associated laser settings
- You may then select what parts of your file that you would like to cut, engrave or score
  - Cuts will go all the way through the stock
  - Engraving carves into the top part of the material to etch out shapes or text
  - Scoring is like a low powered cut; makes a single pass over a path without cutting all the way through the material

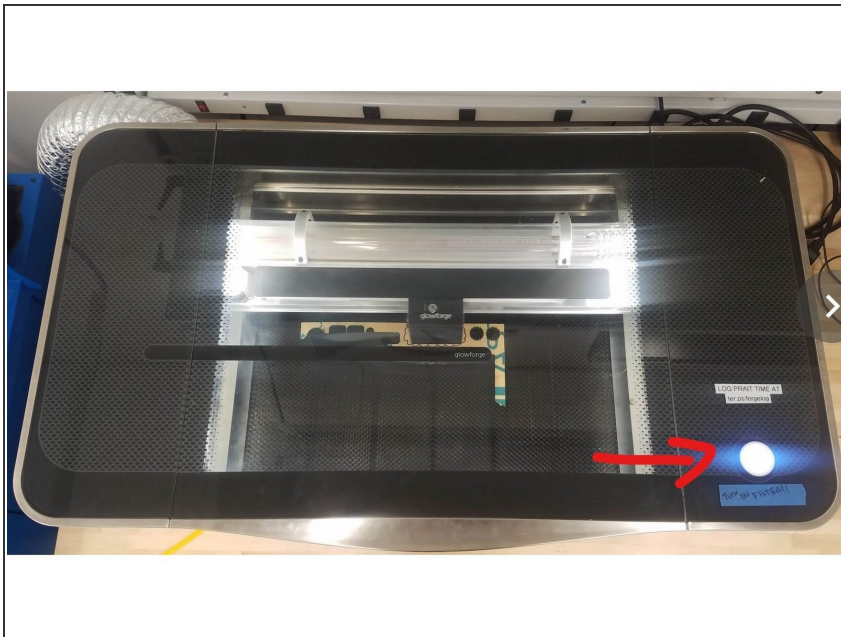


## Step 5 — Special Feature- Tracing



- The Glowforge also has the capability to trace bed images
- This is done by drawing directly on the stock and then selecting the paths in the software
- For every each action (Cut/Engrave/Score) you must select a different line path

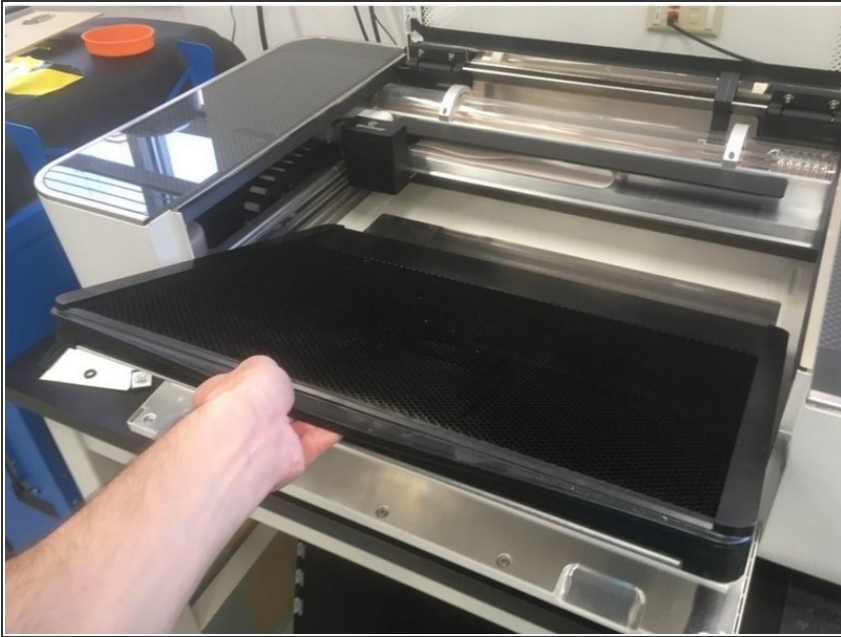
## Step 6 — Starting the Cut



- Place your stock in the bed of the laser cutter, making sure that it lays flat and that the door is closed
- Send the file to the laser cutter using the icons in the upper righthand part of the screen
- Press the start button on the machine to begin the job, you can monitor the progress of the print on your computer screen

**⚠ Make sure the air filter is on!**

## Step 7 — Maintenance- Crumb Tray

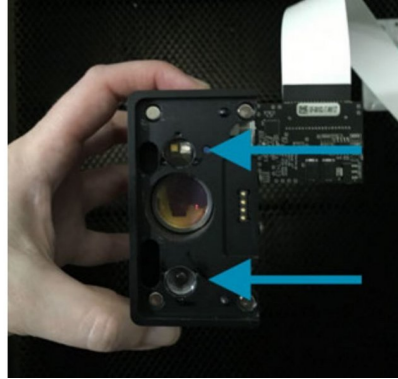
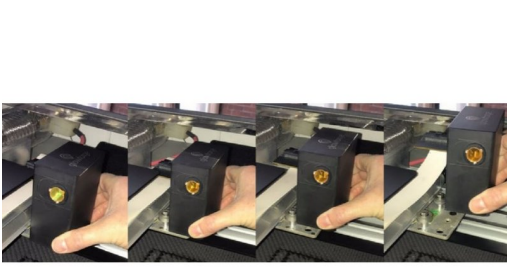


- Turn off the Glowforge before conducting Maintenance
- Whenever there is a build up of debris you can clean out the crumb tray by removing the bed
- Open the lid and swing down the front door so you can slid the crumb tray out towards you
- Brush off any debris in the trash can and wipe down the metal floor of the Glowforge

**⚠ Be careful not to knock the tray into the printer head or the rails and that it is sitting properly in all four dimples**

## Step 8 — Maintenance- Lens Cleaning

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- After every 40 hours of print time the lens should be cleaned
- Turn off the Glowforge before conducting Maintenance
- Grasp the printer head and pull gently up and back to remove
- Use a lens cleaning cloth to gently wipe over both windows on either side of the lens
- Use the blue magnetic tool to remove the lens from the print head
- Making sure to only touch the metal ring, wipe the lens with the cloth
- With the 'Install' side of the blue tool place the lens back in the print head
- You can now place the print head back in the Laser Cutter and will hear a small click when it is fully attached