**Certification Levels**

The laser cutter uses a laser to cut materials or engrave an image or text into a material. In the Middle School Makerspace, we have a Glowforge laser printer.

**Laser Cutter**

Level 1: Novice

If you want to learn how to use the laser cutter, you are already a novice! Congrats!

Level 2: Competent

You have reached this level if you know how to:

* Prepare a digital design that can be laser cut using Adobe Illustrator
* Use cardboard as a material, especially to prototype your design
* Know the difference between raster and vector
* Flag a teacher for problems like fire and smoke

Level 3: Proficient

You have reached this level if you know how to:

* Combine raster and vector lines into one digital file
* Use wood as a material
* Use the bed clips correctly to hold your material down to the honeycomb bed.
* Diagnose communication issues between the computer and the laser cutter

Level 5: Expert

You have reached this level if you know how to:

* Use materials beyond wood, cardboard, and acrylic (ex: leather)
* Clean the hood, tray, and lens without help from an adult
* Replace the lens

Level 4: Advanced

You have reached this level if you know how to:

* Use materials beyond cardboard and wood (ex: acrylic)
* Design and print a laser-cut project that improves the makerspace
* Control the power and speed by making your own cut and engrave settings on the Glowforge interface.
* Clean and run maintenance on the laser cutter with help from an adult