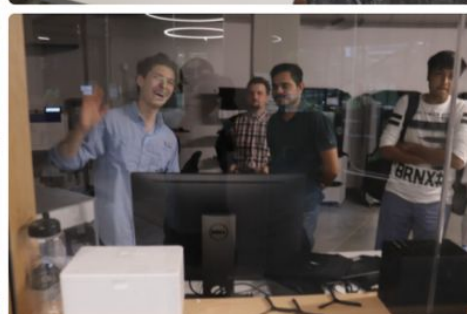


# Rubber Stamp Workshop!



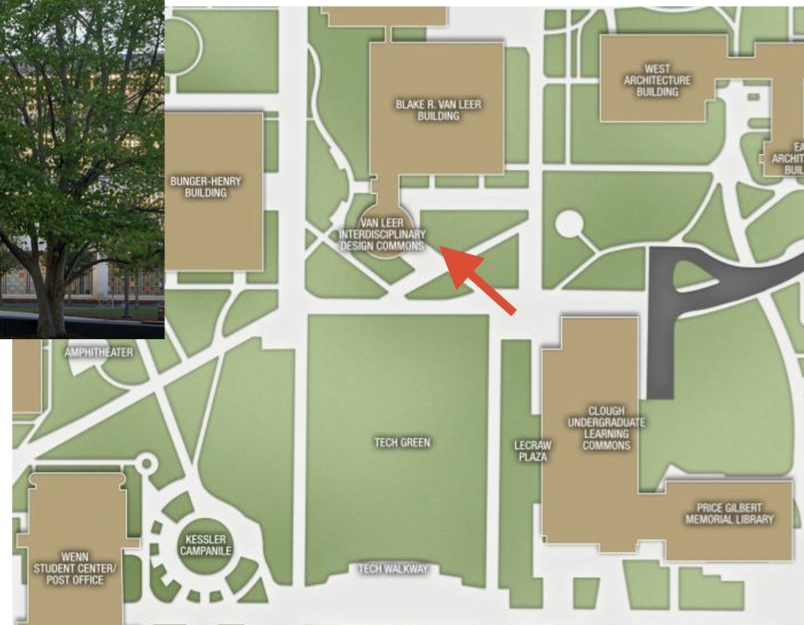
Reyna Samuel  
Markella Bibidakis  
Vipisha Pazhanivel





## STUDENT RUN & OPEN TO ALL MAJORS

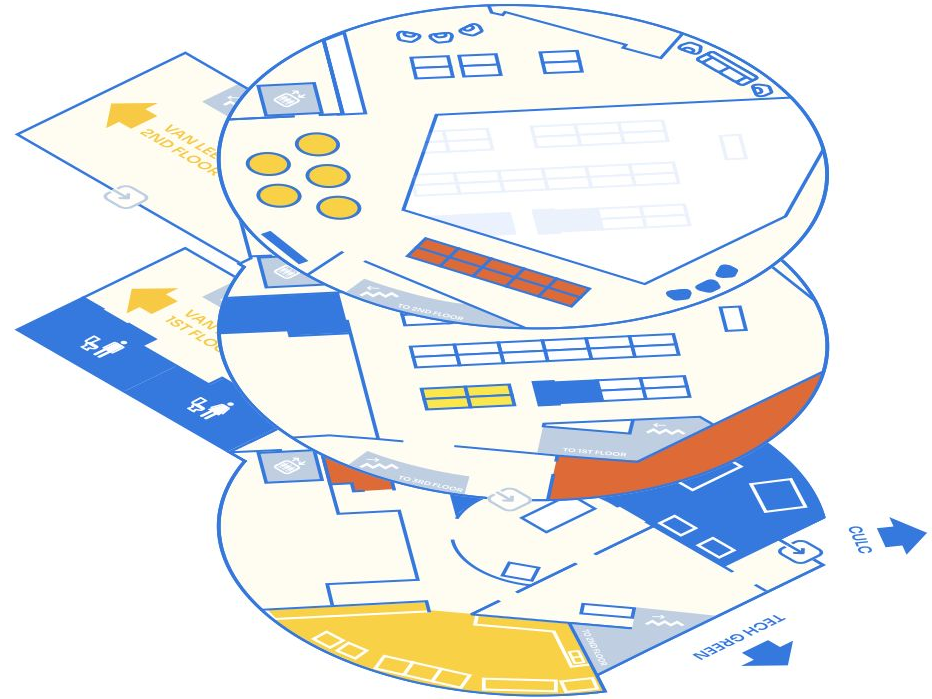
**15,600 square feet of makerspace**  
**130 Peer Instructors/semester**





**1800** unique End  
Users rely on us  
each semester to

STUDY  
COLLAB  
3D PRINT  
SOLDER  
DESIGN  
LASER CUT  
TEST  
ENGRAVE  
BUILD  
PROTOTYPE



# GET INVOLVED

**Visit us during open hours.**

**Connect with a PI Consultant.**

**Join our mailing list.**

**Come to a workshop.**

**Become a Peer Instructor**

Applications open at the end of the Fall  
and Spring semesters.



# Questions?

[hive.ece.gatech.edu](https://hive.ece.gatech.edu)



Email: [hive@ece.gatech.edu](mailto:hive@ece.gatech.edu)  
Instagram: [thehivemakerspace](https://www.instagram.com/thehivemakerspace)  
Facebook: [hivemakerspace](https://www.facebook.com/hivemakerspace)

# Tech Area Spotlights





# Laser Cutting

- **two laser cutters made by Universal Laser Systems Inc.**
- **can cut and engrave a variety of materials**
  - **including wood, acrylic, paper, cardboard, and in some cases, metal**
- **we have also recently acquired a new laser cutter called the Fablight 4500 🤖**





# Machine Shop

- **Miter saw**
- **Drill presses**
- **Scroll saw**
- **Band saw**
- **Belt sanders**
- **Sandblasting booth**
  
- **Cordless drills**
- **Dremels**
- **Hand saws**
- **Jigsaw**
- **Sawzall**
- **Sandpaper**
- **etc.**



A large, light beige circle is positioned on the left side of the image, partially overlapping the blue background. The circle's right edge is visible, creating a soft transition into the blue area.

**Time to Design!**

# Picking a Design/Image

- Find a *high resolution* picture
- Certain images/designs will work better
  - Clear text, silhouettes, B&W images

## Would work well



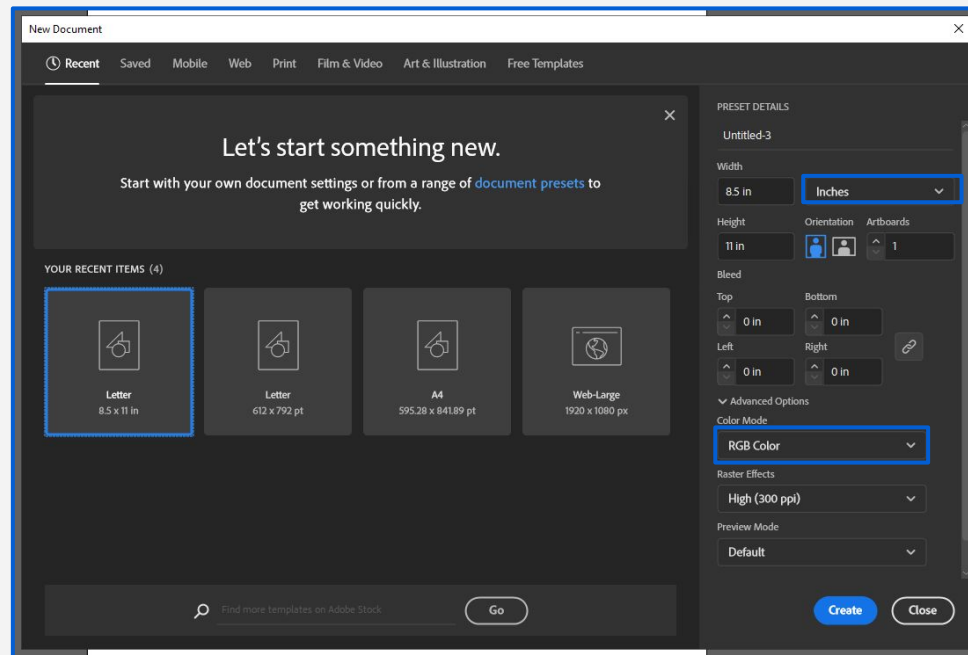
## Wouldn't work well



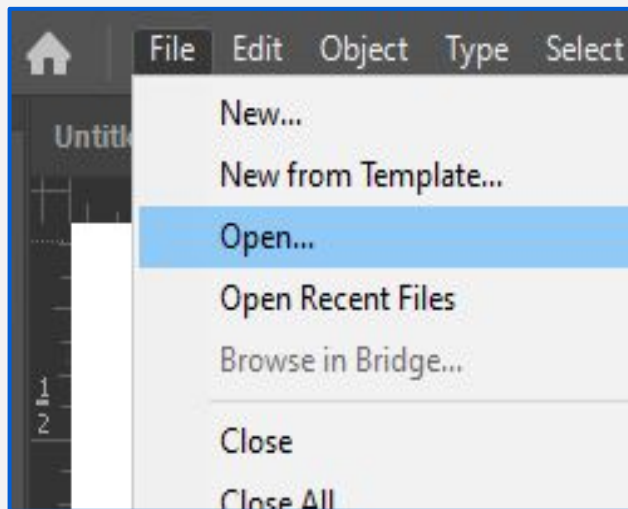


# Designing a Stamp

- **Create a new file in Illustrator**
  - Letter size
  - Units in inches
  - RGB Color

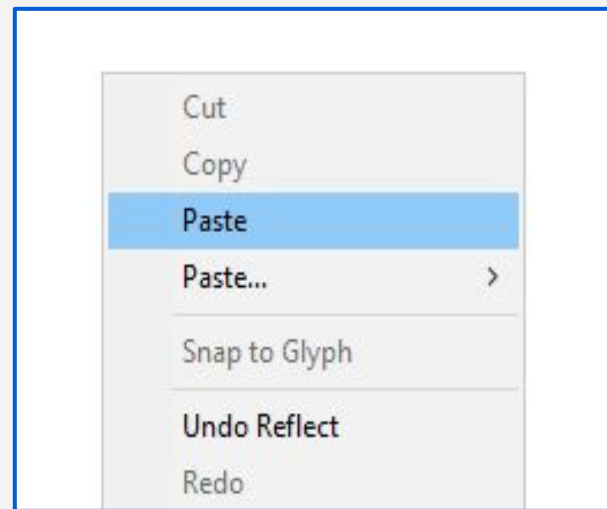


# Import your Image



Open file in Illustrator

or



Copy & Paste in new file

# Image Trace & Expanding

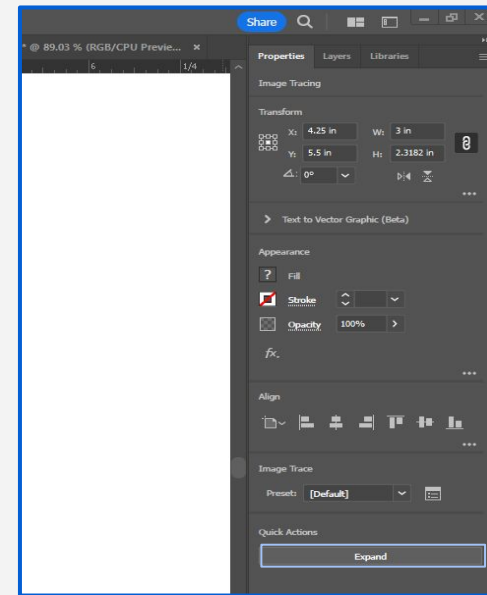
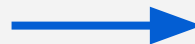
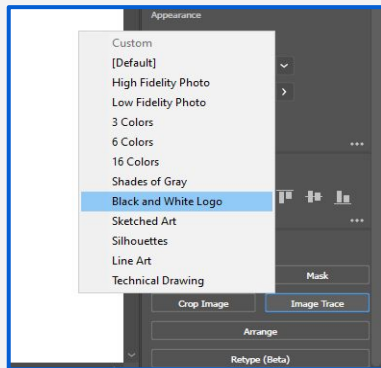
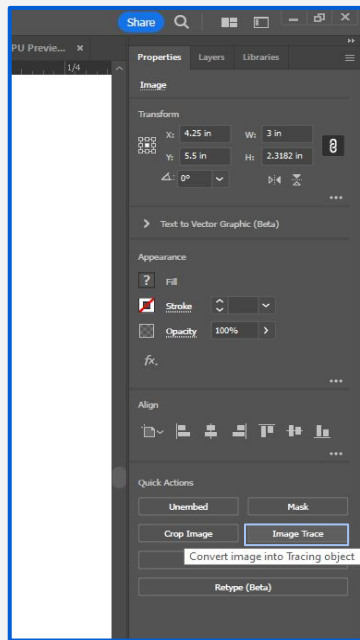
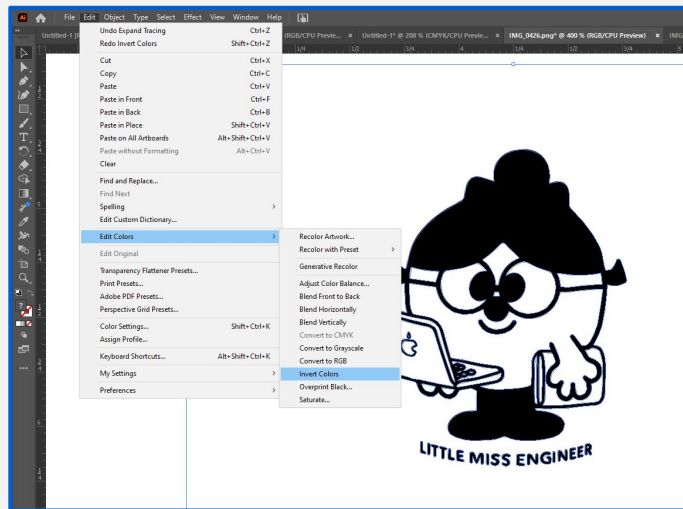


Image trace in B&W  
[Image Trace -> B&W Logo]

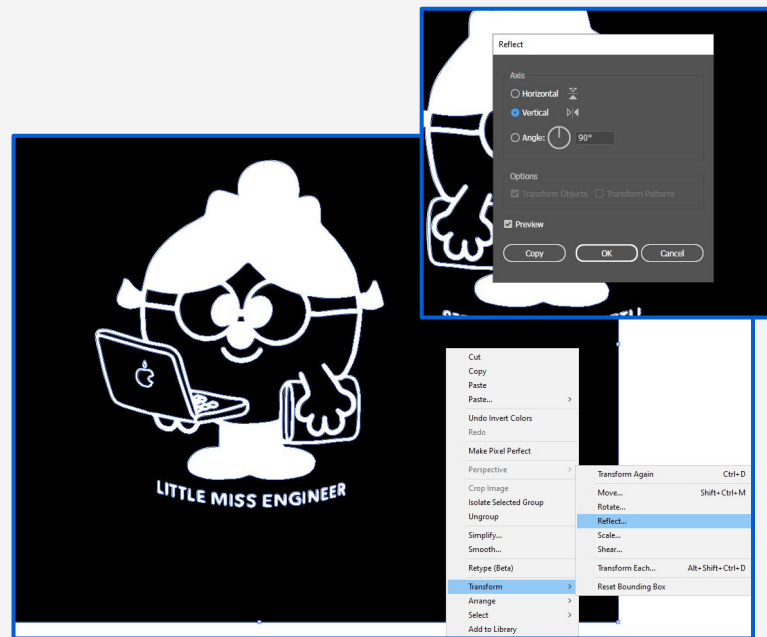
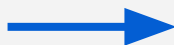
Expand the image trace



# Invert Colors & Reflecting

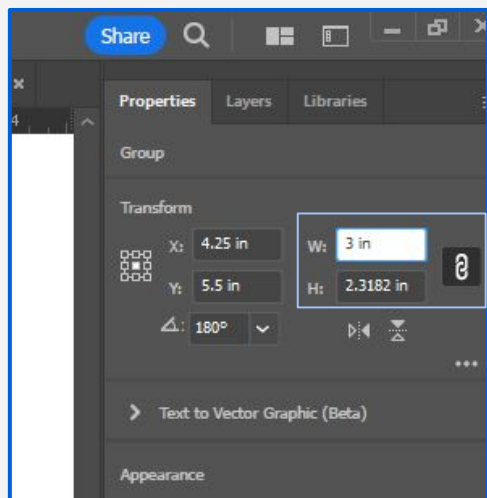


Invert Colors  
[Edit->Edit Colors->Invert Colors]

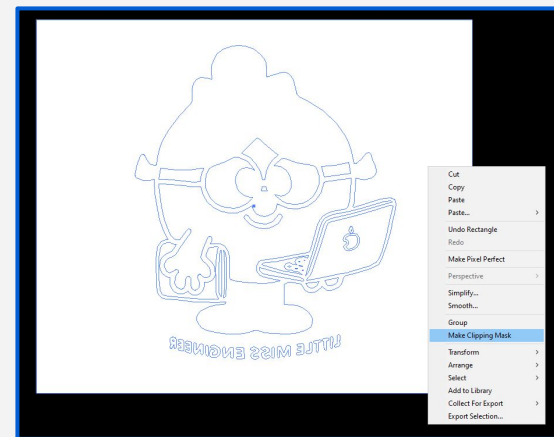
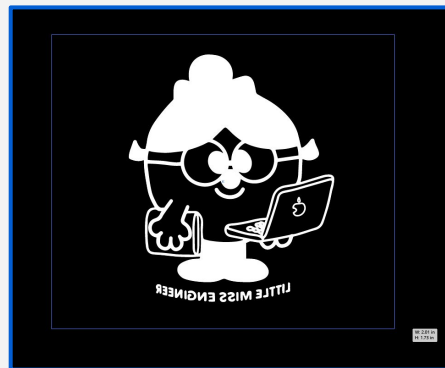


Reflect image  
[Transform->Reflect->Vertical 90°]

# Resizing & Cropping



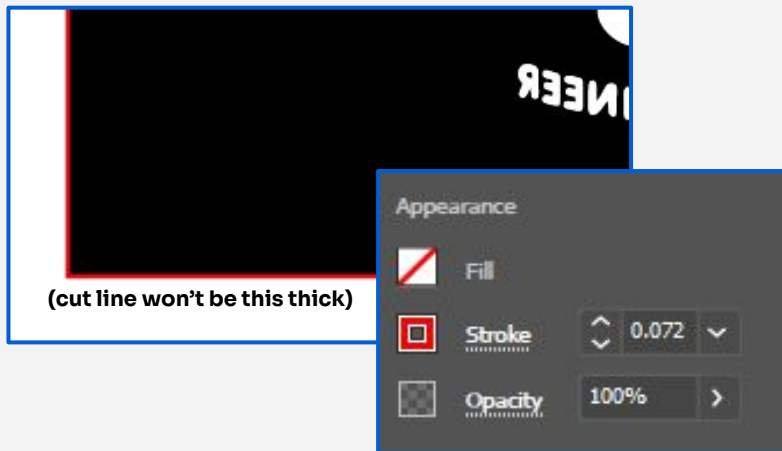
and



**Resizing**  
[change W&H : 2-4ish in.]

***Optional* Cropping**  
[New rectangle->make clipping mask]

# Cut Lines & Final Check



## Cut Line

[New rectangle around design -> RGB red & 0.072]

and



## Final Checks

[Stamp size, RGB red / black, reflected]



# Ready to Laser Cut!



# Laser Cutting Settings

Color	Mode	Power	Speed	PPI	Z-Axis	Laser
Black	Rast	100%	30%	500	0.250"	Both
Red	Vect	85.0%	5.0%	1000	0.250"	Both
Green	Skip	50.0%	100%	500	0.250"	Both
Yellow	Skip	50.0%	100%	500	0.250"	Both
Blue	Skip	50.0%	100%	500	0.250"	Both
Magenta	Skip	50.0%	100%	500	0.250"	Both
Cyan	Skip	50.0%	100%	500	0.250"	Both
Orange	Skip	50.0%	100%	500	0.250"	Both

50W CO2 [10.6µ] / 50W CO2 [10.6µ] Laser Settings for

Materials Database Manual Control

Raster Vector Engraving Field

Rubber Settings

Color	Mode	Power	Speed	PPI	Z-Axis	Laser
Black	Rast	70.0%	100%	500	0.125"	Both
Red	Vect	100%	9.5%	300	0.125"	Both
Green	Skip	50.0%	100%	500	0.125"	Both
Yellow	Skip	50.0%	100%	500	0.125"	Both
Blue	Skip	4.6%	12%	500	0.125"	Both
Magenta	Skip	50.0%	100%	500	0.125"	Both
Cyan	Skip	50.0%	100%	500	0.125"	Both
Orange	Skip	50.0%	100%	500	0.125"	Both

50W CO2 [10.6µ] / 50W CO2 [10.6µ] Laser Settings for

Materials Database Manual Control

Raster Vector Engraving Field

Wood Settings