Laser cutting notes:

typically Rhino but adobe illustrator or svg also work. Even MS paint will work

Black → wide area etch, blue is vector etch (thin lines) red is cutting all the way through.

For vector it needs to be 1 pixel thick, Vector typically works better

hatch does filling in (making a bunch of infinitely thin lines going back and forth)

Rhino is a vector file so you can zoom indefinitely

to make edges look better: make the edge a vector etch

* around your black zones put a blue circle
* select the edge (left-click on the edge) and change the color

moving to laser cutter:

* turn on laser cutter. turn yellow handle down, and turn on fume extractor. wait for the numbers to match (spun up)

ctrl+P or print to print

open up the red software

use focus view to check to make sure the laser cutter head will fit

go to settings and tell it what the material is (e.g. cardboard is construction paper)

Give it the material thickness. if you don’t know measure it

keep an eye on it to respond to a fire, but don’t stare at the laser

how to respond to a fire

* use spray bottle to put it out

so if I open the glass when its running it will just stop automatically

lifting up the lid causes a full automatic stop

its not too terrible if it goes off the material but better not to

maximum thickness: 1 inch (wood, optimal material, wouldn’t work with acrylic)

material:

* acrylic, plywood, cardboard
* plywood is nice and expensive

no way to smooth with laser cutter, use sandpaper instead

to avoid a smoky finish, cover the top of the material with masking tape

wood: 7.75 per sheet:

1/16th inch acrylic: 12 dollars

1/8 inch acrylic: 16 inch (looks milky)

1/8 inch cast acrylic: looks nice, $26

chip board: 2.25 (thick)

chip board thin: 30 cents

18 inch by 24 inch (size of laser cutter bead)

we can use Rhino on any of the workstations but not the one right by the laser cutter

can make dxf files in other CAD