

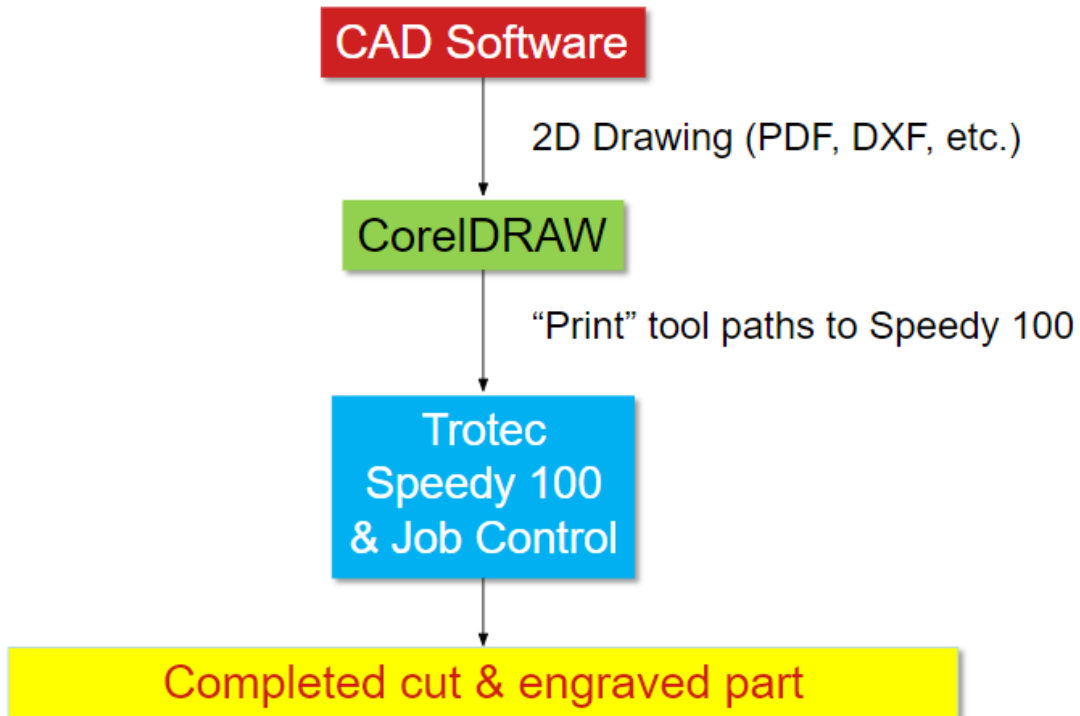


Makerspace

Trotec Speedy 100 Quick Start Guide



Workflow



- Import graphics to CorelDRAW template
- Prepare graphics for laser cutting/engraving
- Set appropriate Material and Power settings using Job Control
- Use Job Control to select job and adjust laser position
- Use focus tool to focus lens on workpiece
- Start cutting/engraving job
- Job completion

Definitions

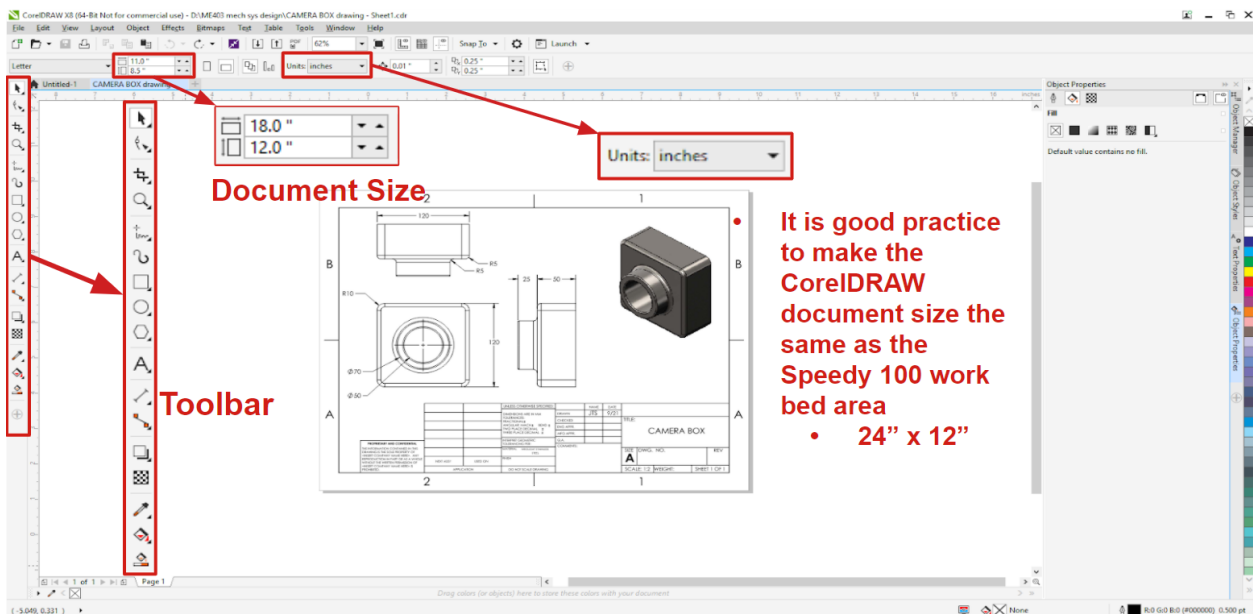
- CorelDRAW: Vector-compatible graphic software.
- Vector graphics: infinite-resolution graphics represented by points and paths.
→ File types: .ai, .svg, .eps, .dxf
- Raster graphics: finite-resolution graphics represented by a dot matrix of pixels.
→ Example file types: .jpg, .png, .bmp, .gif

Supplies

- Lens of choice
- Lens focus tool
- Beam expander(s)
- Water spray bottle

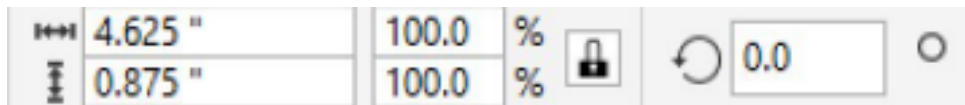
1 - Open Your Cut/Engrave File

- Open CorelDRAW.
- Use “File” > “Open” or “File” > “Import” to open your file.
 - The bed of the laser is 12 in. by 24 in. so your drawing cannot exceed these dimensions.
- For Raster/Vector File(s) from Corel/Adobe, use “File” > “Import”
- For 2D DXF File(s) from CAD Software, use “File” > “Open”
 - Select correct units and scaling.
 - Click “OK” if prompted to substitute missing fonts.
 - Use the Pick tool to pick and delete any unwanted text.
- For PDF Drawing File(s) from CAD Software, use “File” > “Open”



2 - Manipulate Objects

- Use the Pick tool to select objects or groups.
- Use the Shape tool to select individual paths or points.
- Use the dimensions section of the toolbar to adjust scale of selected objects:
 - Set exact dimensions or use the percentage to scale object size.
 - Be sure “Lock Ratio” padlock button is enabled, so that objects scale uniformly with original aspect ratio maintained

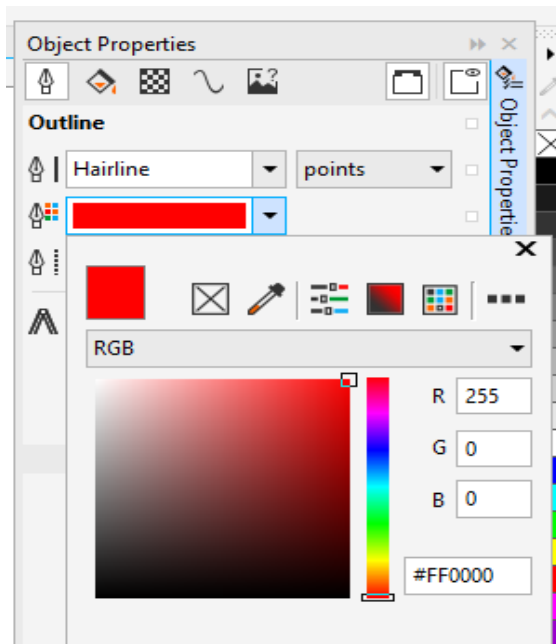


- NOTE: PNG raster files may need to be mirrored to achieve proper engraving result.

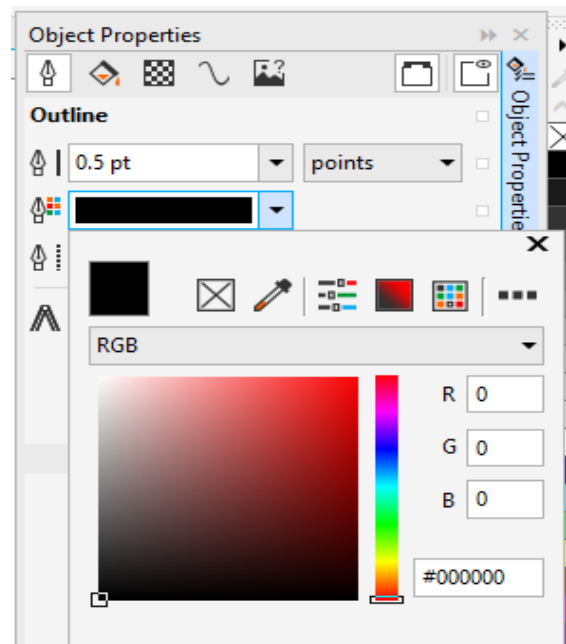


3 - Prep Vector Paths

- For Cut Lines:
 - Select the vector lines that should be cut.
 - In the Object Properties tab, adjust the line thickness and line color.
 - ◆ Lines must be set to “Hairline” thickness and RGB RED (255,0,0)
- For Engrave lines:
 - Select the vector lines that should be engraved.
 - In the Object Properties tab, adjust the line thickness and line color.
 - ◆ Adjust to your desired thickness and set color to RGB BLACK (0,0,0)



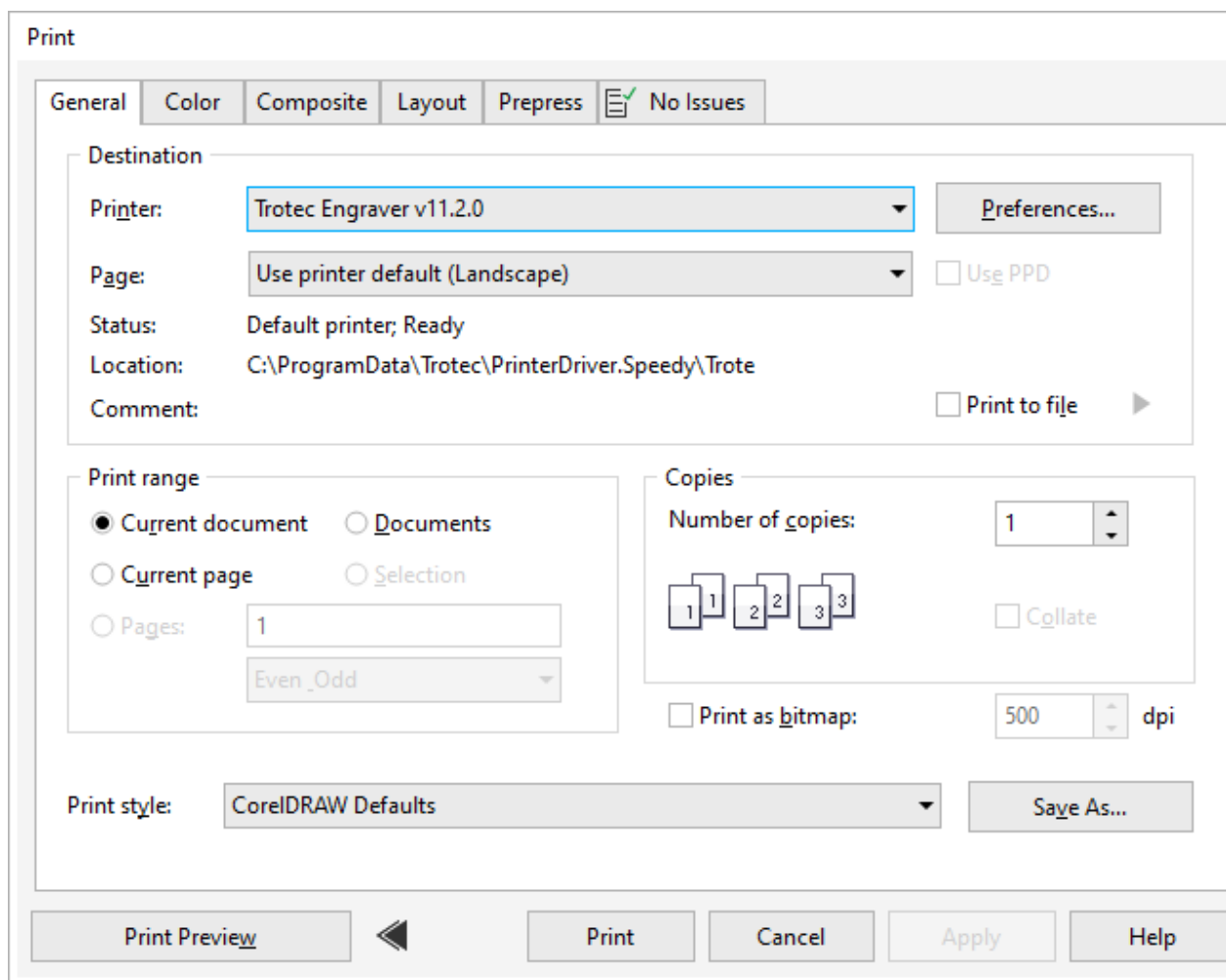
CUT Settings



ENGRAVE settings

4 - Printing Job from Corel

- After adjusting in the Object Properties tab, open the Print Dialog with **“File” > “Print”**.
- In the **“General”** tab, set **“Printer”** to Trotec Engraver v11.0.0 and **“Page”** to Use printer default (Landscape).



The screenshot shows the 'Print' dialog box in CorelDRAW, with the 'General' tab selected. The 'Destination' section is configured with the printer 'Trotec Engraver v11.2.0' and the page set to 'Use printer default (Landscape)'. The 'Print range' section has 'Current document' selected. The 'Copies' section shows 1 copy and the 'Collate' checkbox is checked. The 'Print as bitmap' option is set to 500 dpi. The 'Print style' is set to 'CorelDRAW Defaults'. At the bottom, there are buttons for 'Print Preview', 'Print', 'Cancel', 'Apply', and 'Help'.

Print

General | Color | Composite | Layout | Prepress | No Issues

Destination

Printer: Trotec Engraver v11.2.0

Page: Use printer default (Landscape) Use PPD

Status: Default printer; Ready

Location: C:\ProgramData\Trotec\PrinterDriver.Speedy\Trote

Comment: Print to file

Print range

Current document Documents

Current page Selection

Pages: 1

Even_Odd

Copies

Number of copies: 1

Collate

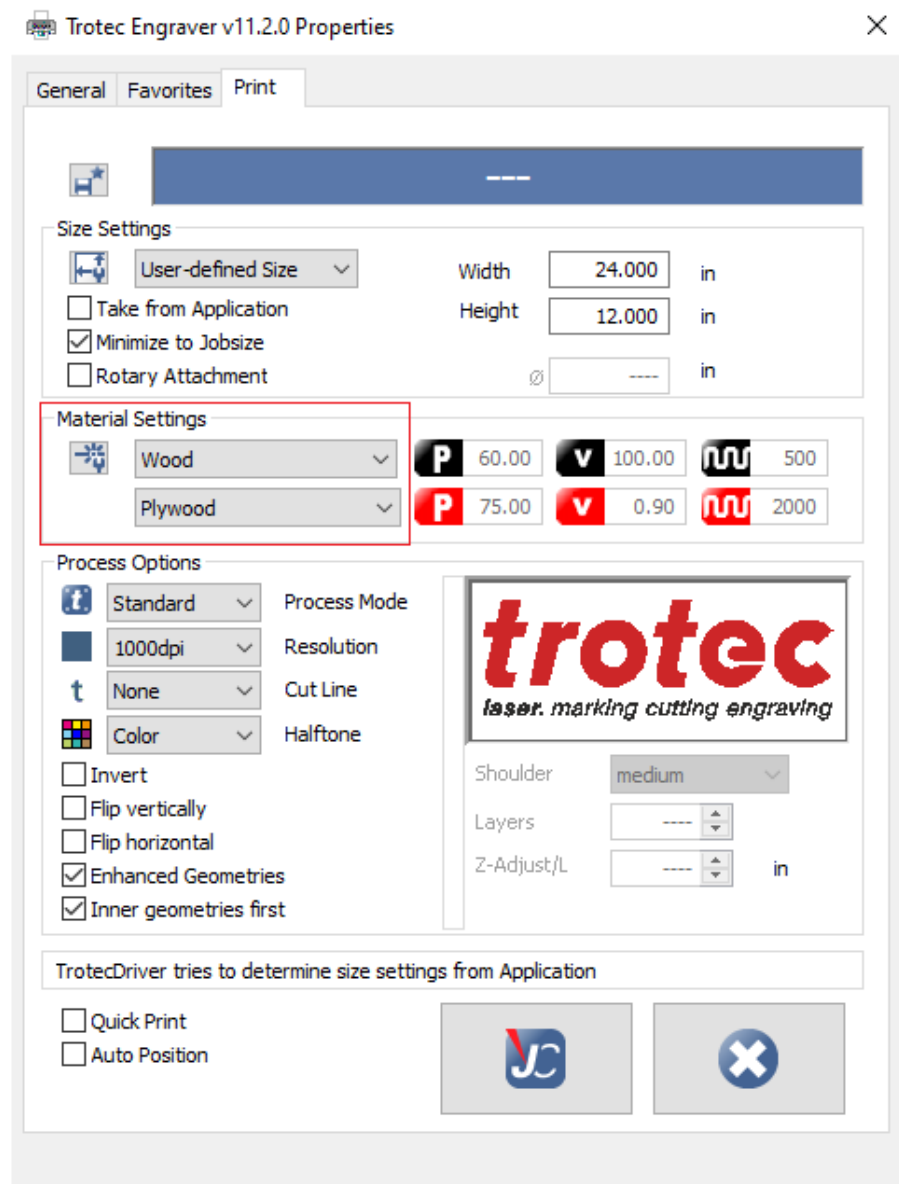
Print as bitmap: 500 dpi

Print style: CorelDRAW Defaults

5 - Preferences Panel - Properties

- In the “Print” tab, select your material and specification.
- Keep all other default settings as is.
- When done, click the “JC” icon at the lower right corner and return to the Corel Printing Job.
- Then in the “General” click Apply then Print. The Job Control App should start flashing.

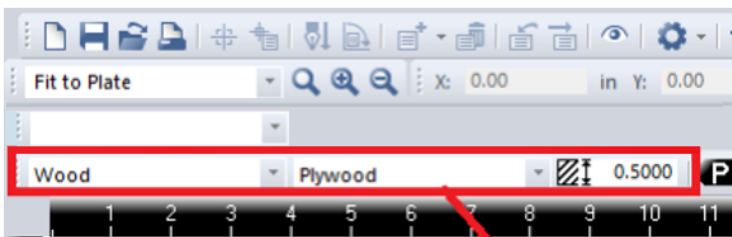
Only Change This!!!



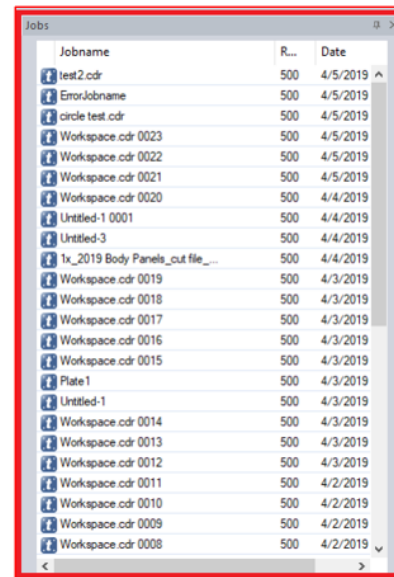
6 - Job Control

- In the “Job” panel on the right, click on your job to bring it into the Job Control workspace.
- Jobs are ordered by date - most recent jobs will be at the top.
- In the lower right corner, click on the power plug icon to connect the Job Control to the laser. If you can not connect check if the laser is on or call staff for help.

1 Adjust material and material thickness

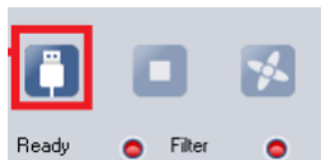


2 Select file

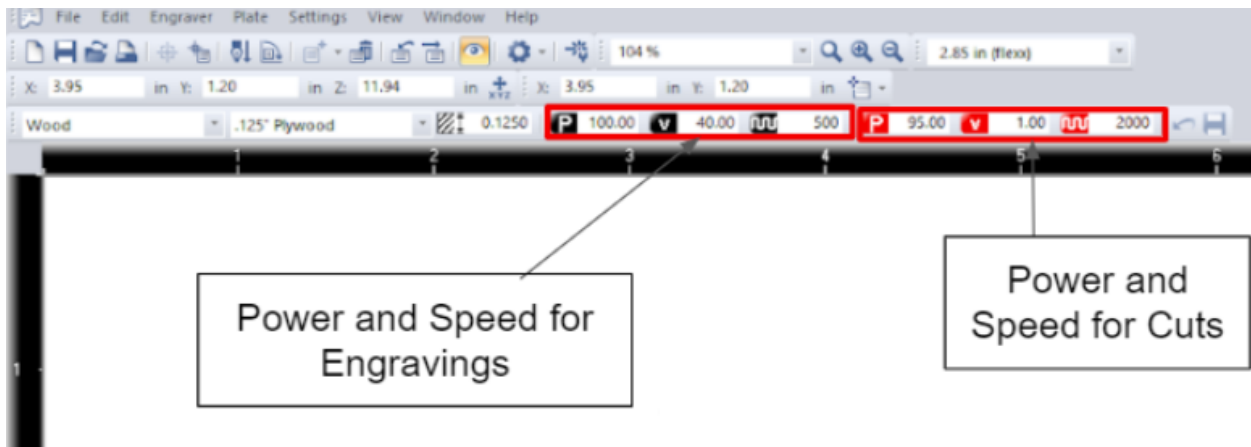


3 Connect to Laser

(After connecting a laser icon will appear)

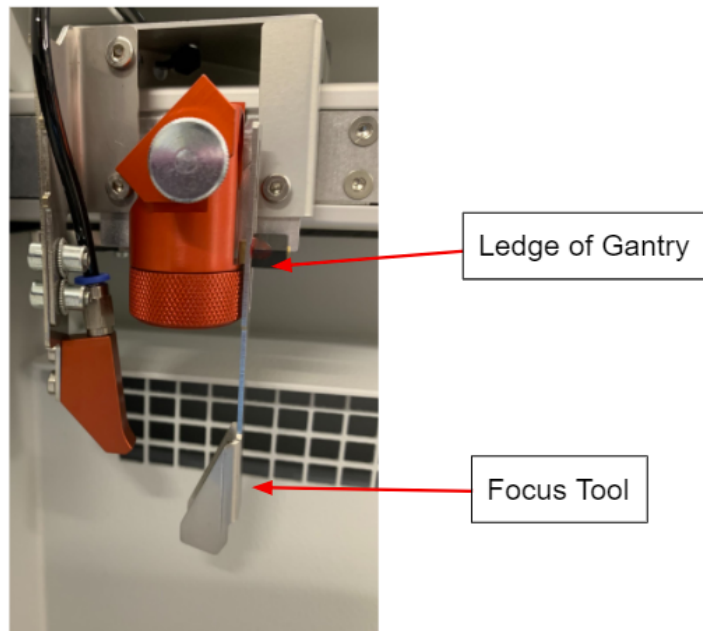


- If NEEDED you may make changes to intensity settings after running your file once, you may adjust your power and speed accordly.
 - Increasing power → cutting intensity **increases**
 - Increasing speed → cutting intensity **decreases**



7 - Starting the Job

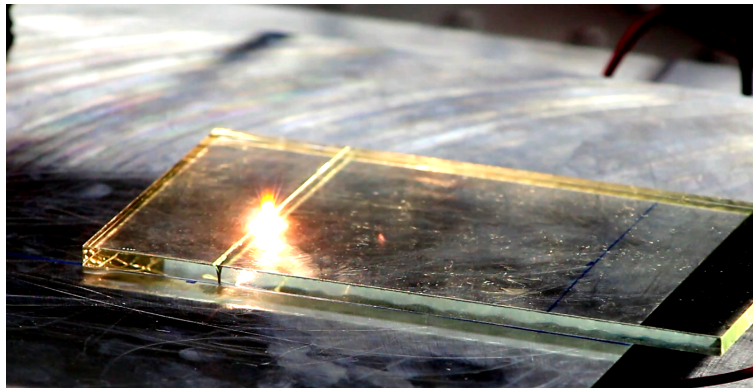
- Place your workpiece into the bed of the Speedy 100
- **Focus the laser:**
 - Manually - Place “Focus tool” on the ledge of the gantry cover and raise the bed till the tool comes into contact with the workpiece and falls off the ledge.



- Automatic - Hit both z-axis buttons simultaneous to have the laser auto-focus. (Make sure the lid is up when doing this)



- **Position the laser pointer:** Use the light beam and the arrow pad to position the laser on your part. There should be a pointer in Job Control showing where the laser is. Carry the file towards the pointer and it should snap to that position.
- **Close the lid:** The lid must be closed, then the laser job can be initiated from the Job Control.
- **Start the job:** Click the “Play” button in the lower right hand corner of the Job Control. Watch the job to ensure the desired path is being cut/engraved and that your material doesn’t catch fire.
- **Watch:** Watch the job to ensure the desired path is being cut/engraved and that your material doesn’t catch fire, make sure the fan turns on automatically



Maker TIP: There can be a small intermittent fire between the laser and material, if you notice a LARGE FIRE STOP the machine but keep the lid closed!

- **After job completion:** Remove all material from the laser bed, turn off laser, prepare computer workstation for next p (eject and remove flash drive, sign out of personal online accounts, etc.).