CORELDRAW VERSION

V5
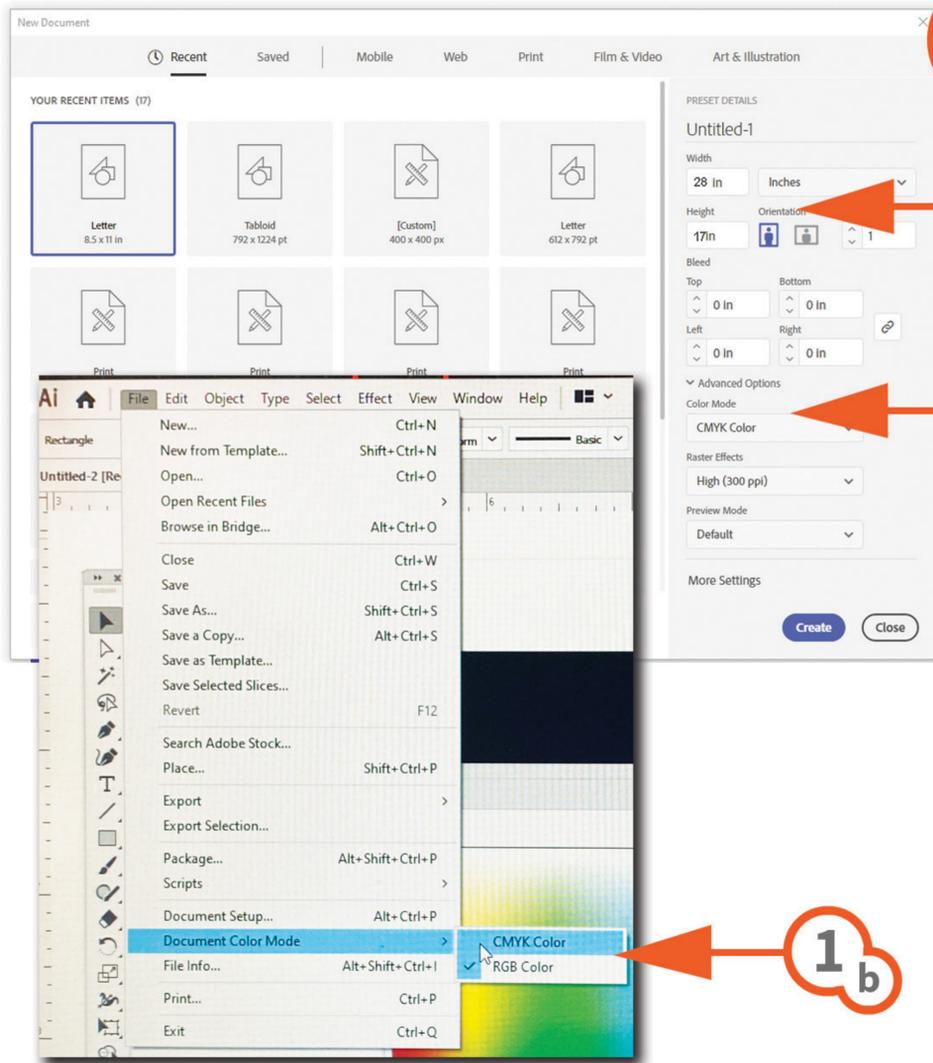### MAY 27TH -2024

Do not use vinyl or plastic of any kind… it is toxic (plexiglas is ok).

Do not use MDF or Particle board… it is toxic .

This is an expensive and sensitive device… please follow the steps carefully.

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1 File Setup

You will first need to create a file in Adobe Illustrator or Coreldraw.

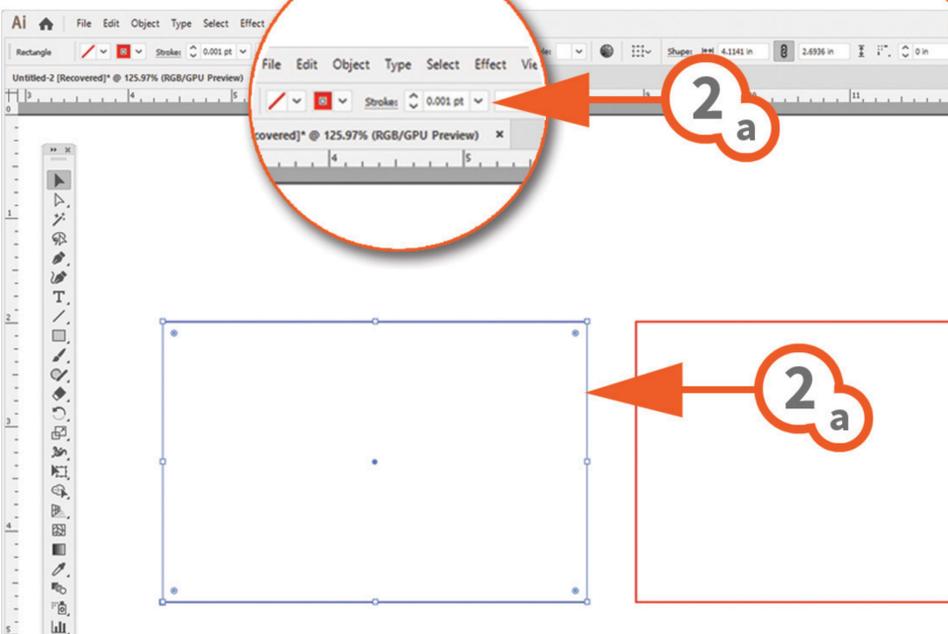**1a - Make the Art Board (drawing size) 28"w x 17"h (712mm x 433mm)***

1b - Set the color mode to RGB

***Use the guidelines in Illustrator to define your actual material size on the artboard.**
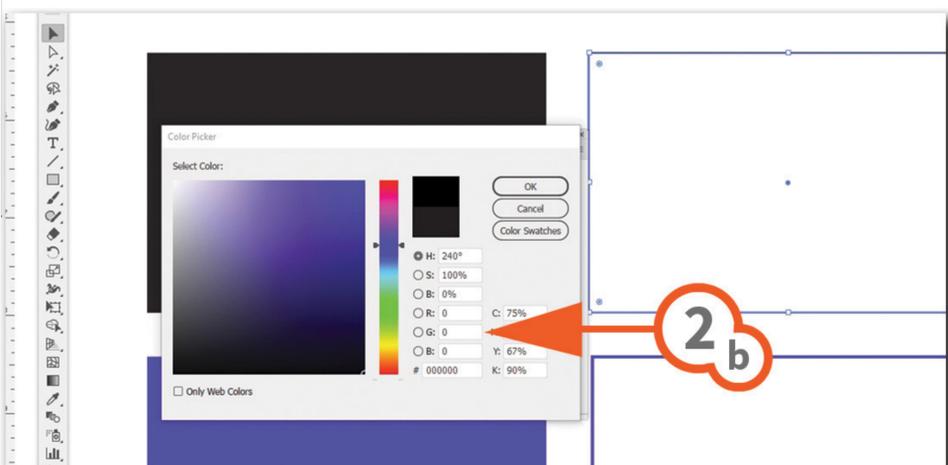
2 Line & Fill Settings

2a
To CUT on the laser use the following settings:
- Line colour = pure red, R255, G0, B0
- Line stroke thickness = .001pt
(It could appear after you set it, as 0 .. that's ok)

2b
To SHALLOW ENGRAVE on the laser use the following settings:
- Line & fill colours = pure black, R0, G0, B0
- Line stroke thickness = 1pt or thicker

To DEEP ENGRAVE on the laser use the following settings:
- Line & fill colours = pure blue, R0, G0, B255
- Line stroke thickness = 1pt or thicker

To hide an object and layers form the laser....
Please refer to the CORELDRAW QUICK LEARN SHEETS FOR TROTEC LASER V2

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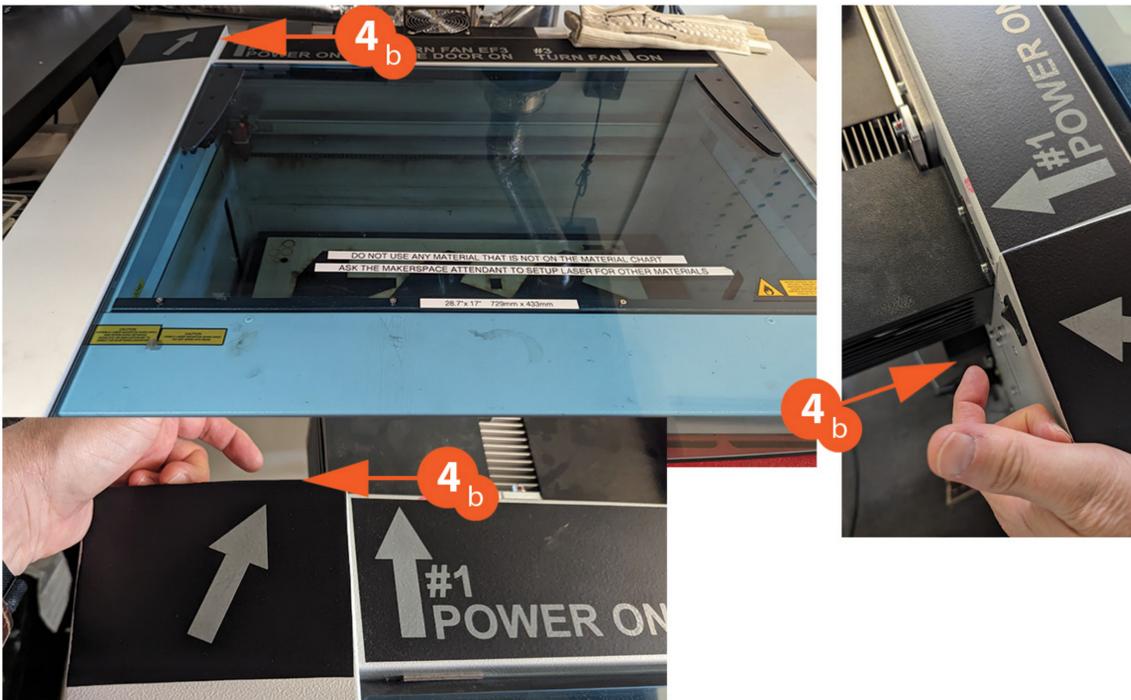# Langara.
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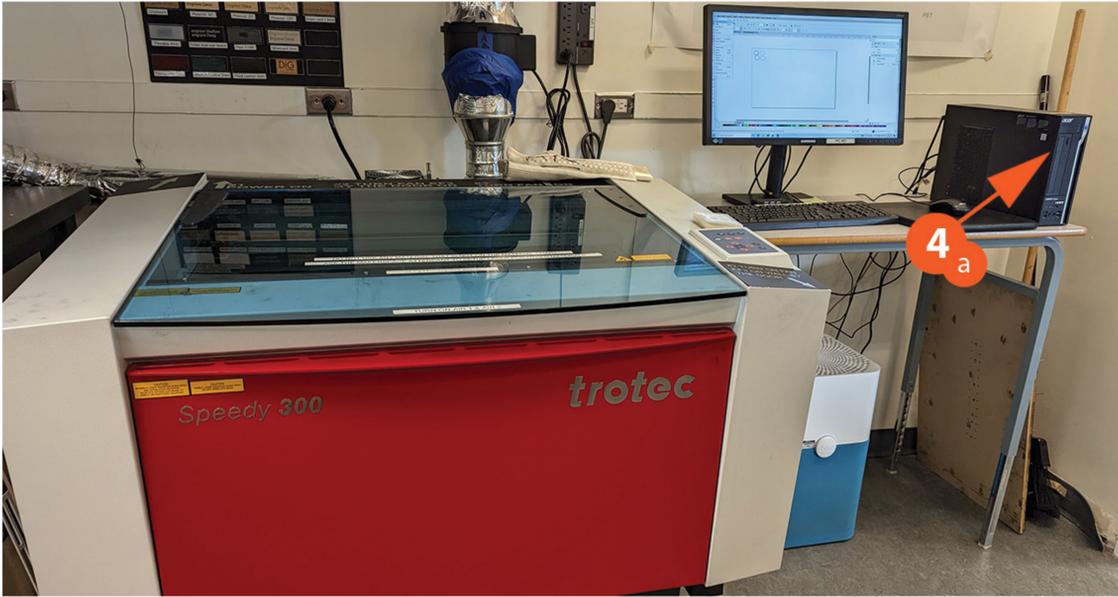
3

Save your file to a USB stick.
Save as the latest file version in its native format;
- Adobe Illustrator as an .ai file
- Coreldraw as a .cdr file

4

Operating the Trotec laser

4a - Plug your USB stick into the Trotec PC computer

4b - Turn on the laser

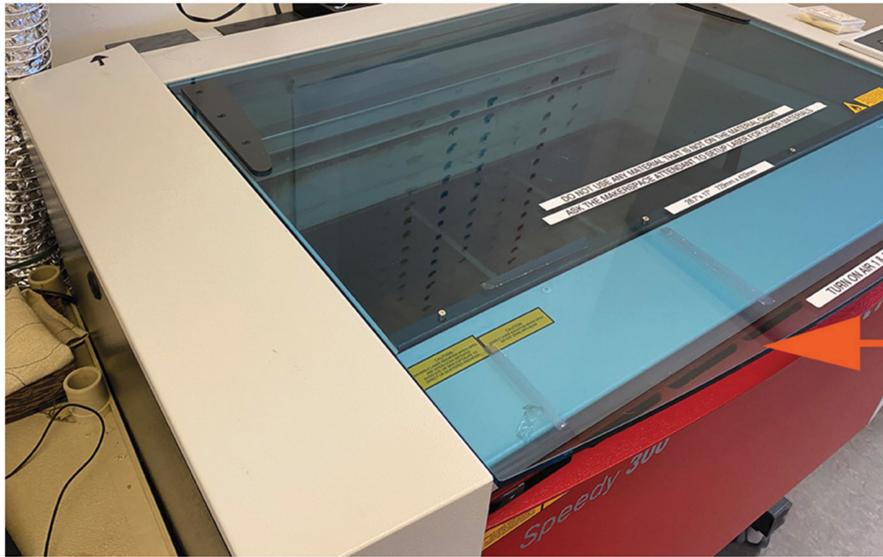4c - Turn on the Air 2 fan on the wall behind the laser

4d - Turn on the Air 1 fan. It is on the wall to the right of the laser and doorway.

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5

Laser Start Up & Loading Your Material

5a
Allow the laser to warm up, **allow the bed to drop down before opening the top** or to try to operate it. It will double beep when it is ready.

If the control panel is un-responsive, you did not let it warm up correctly.

5b
Open the top,. Make sure the honeycomb tray is in the laser, load in your material to the top left corner – on the honeycomb... **do not place your material up on the metal ruler edges.**

6
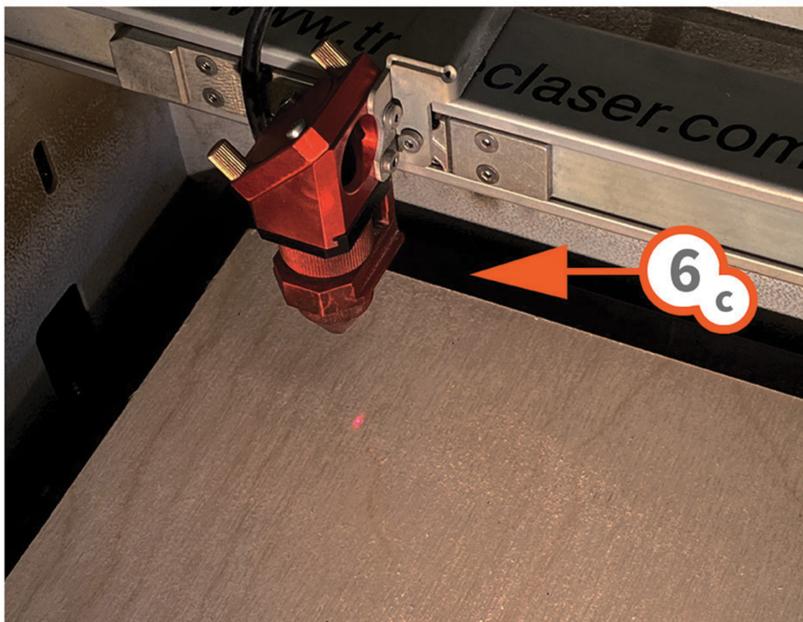
Focusing The Laser

The control panel functions:

6a
The two black filled circles with red arrows = Laser head UP and DOWN

6b
The four red filled circles with black arrows = Laser head FRONT to BACK & LEFT to RIGHT

6c
With the top of the laser open,
using the control panel on the right side...
align the red laser head to round 2" (5cm) and 2" (5cm) down from the top corner of your material.

You are looking to focus on a flat area of your material. Raise the laser bed up to about 1.5" (3cm) below the red laser head.
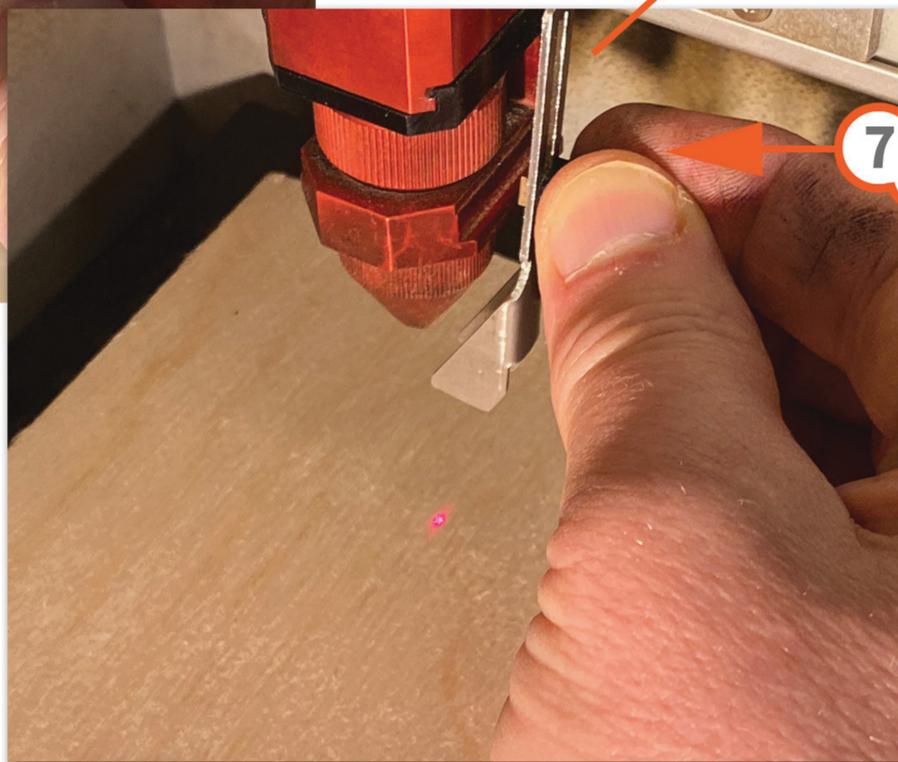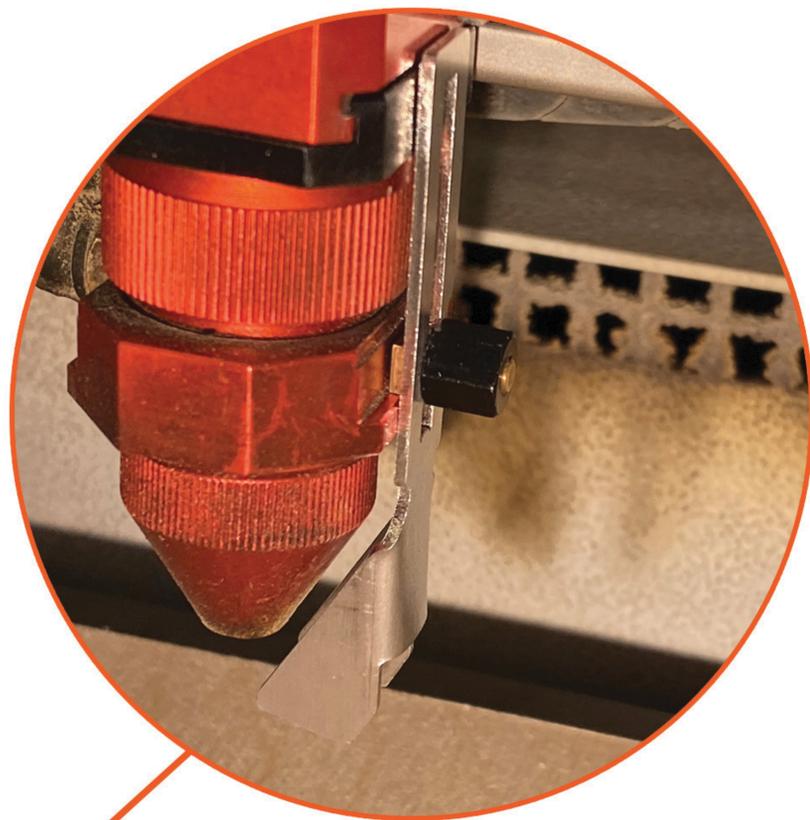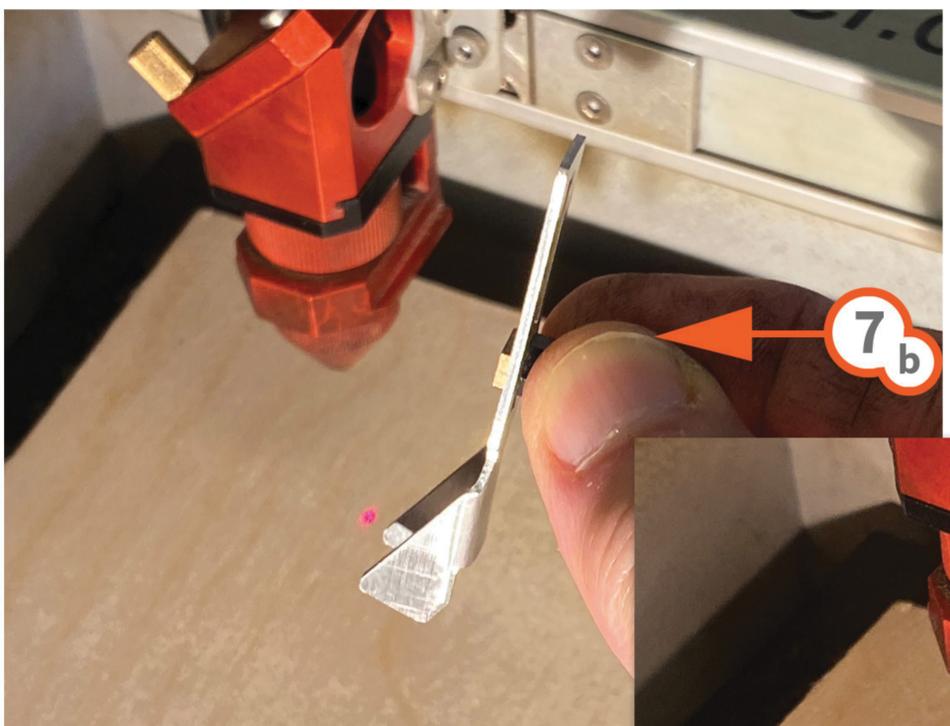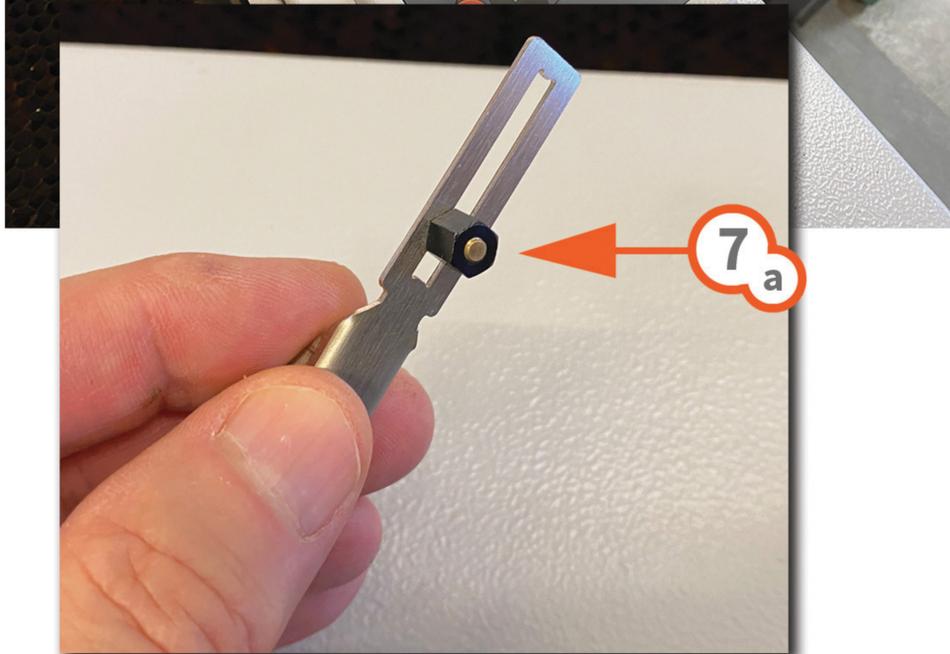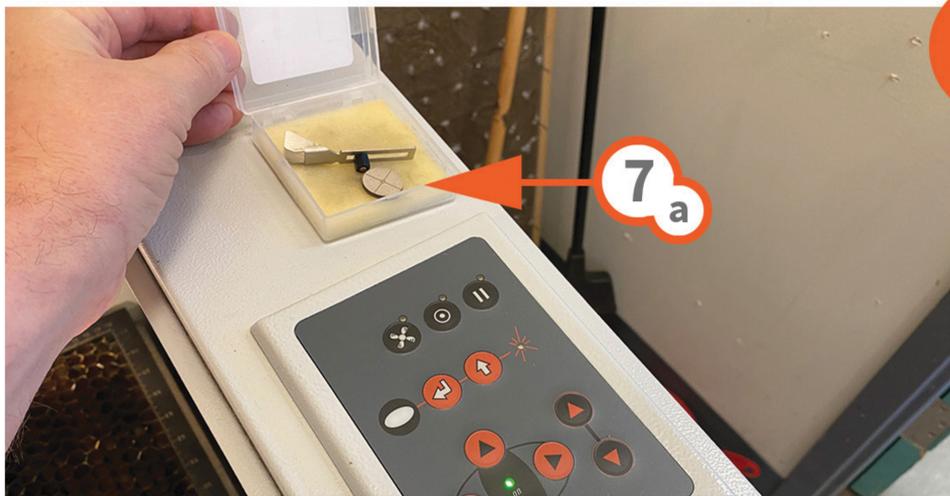
7

Focusing The Laser (cont.)

7a
Open up the tiny case on the right side of the laser..

7b
and take out the focus tool, hold the focus tool by the little black nut...

7c
Place (balance) the brass part on the ledge of the laser head.

8
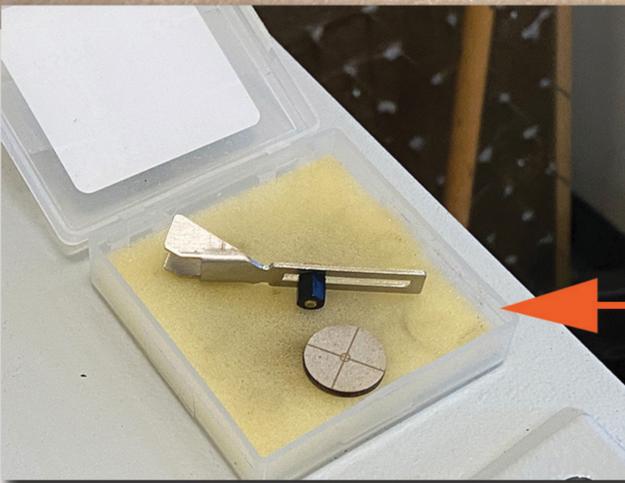
Focusing The Laser (cont.)

8a
With the focus tool balanced,
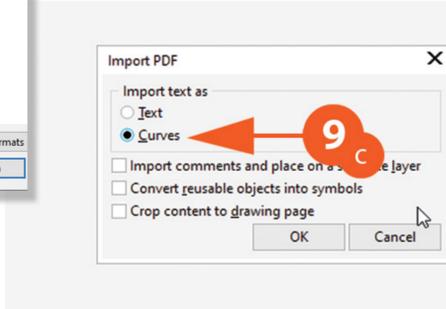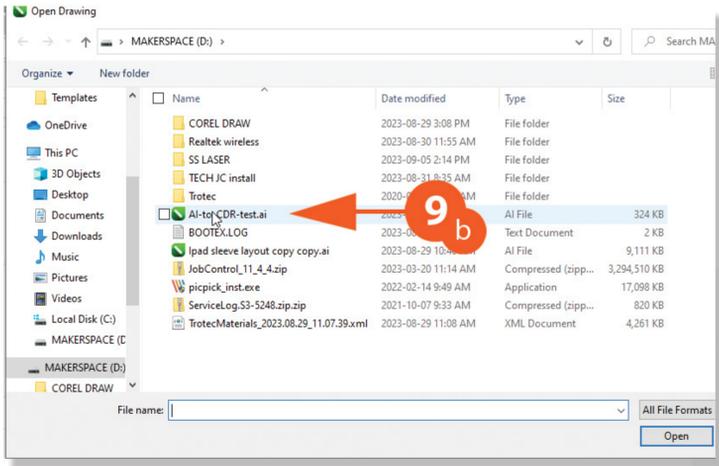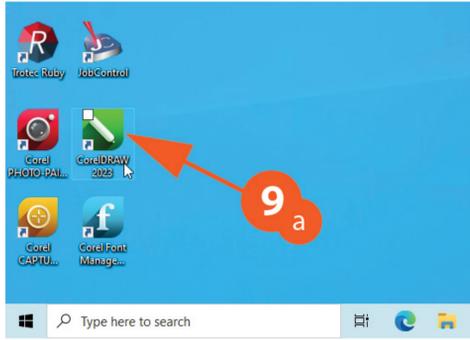raise up the laser bed slowly...

8b
Until the depth gauge **just** falls off.

Don't go past that point as the laser would then
be out of focus.

8c
Now place the focus tool back in it's case and
close the lid and go to the PC computer.

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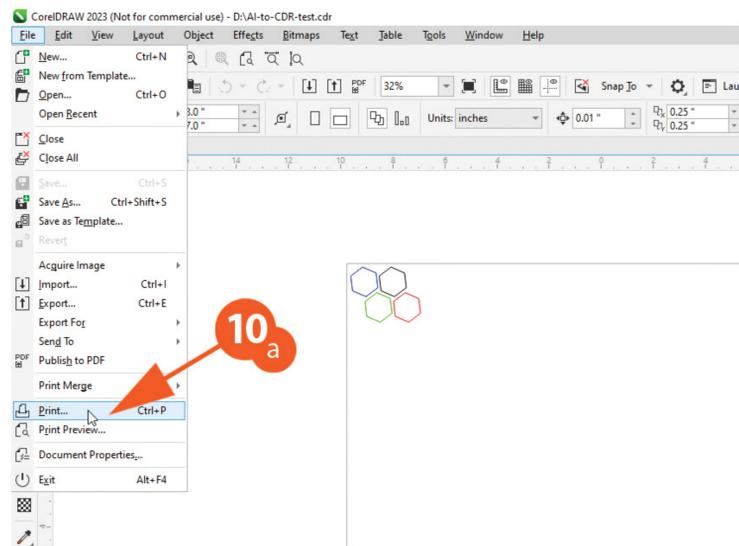# Langara.
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9

Opening your file in Coreldraw

9a - On the trotec Laser computer, open Coreldraw

9b - Then plug in your USB and open your file

If it is an Adobe Illustrator file,
when you see the pop-up,
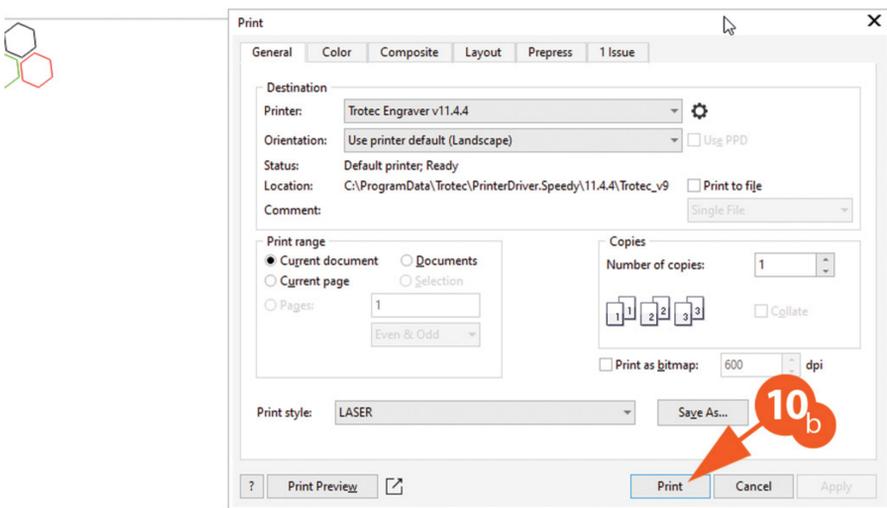select the Curves
9c - Curves
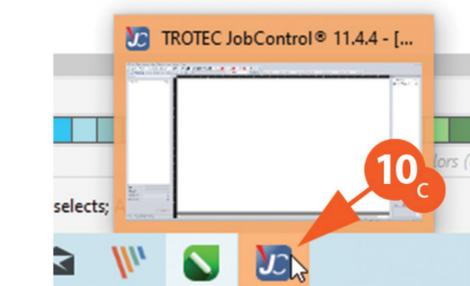
10

Printing to the Trotec laser/ Job Control

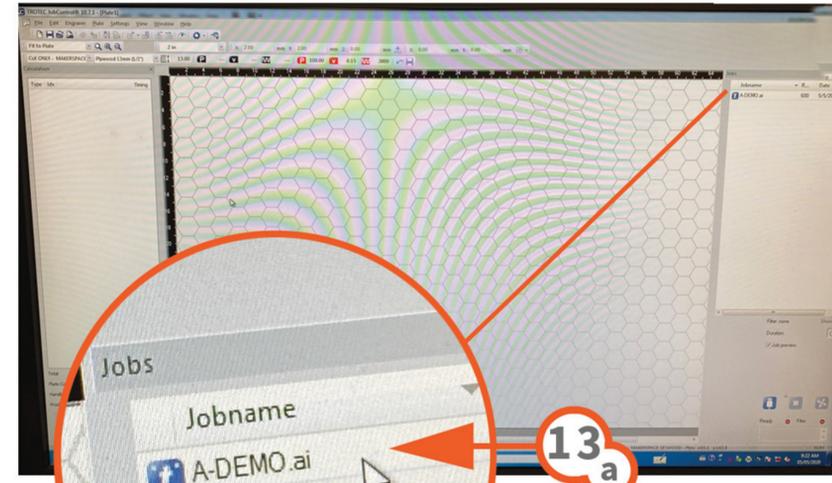10a - Select file/Print

10b - Click - **Print**

10c - When the Job Control icon at the bottom of
the page flashes orange, click on it.

NOTE- Step 11 & 12 have been deleted in this revision
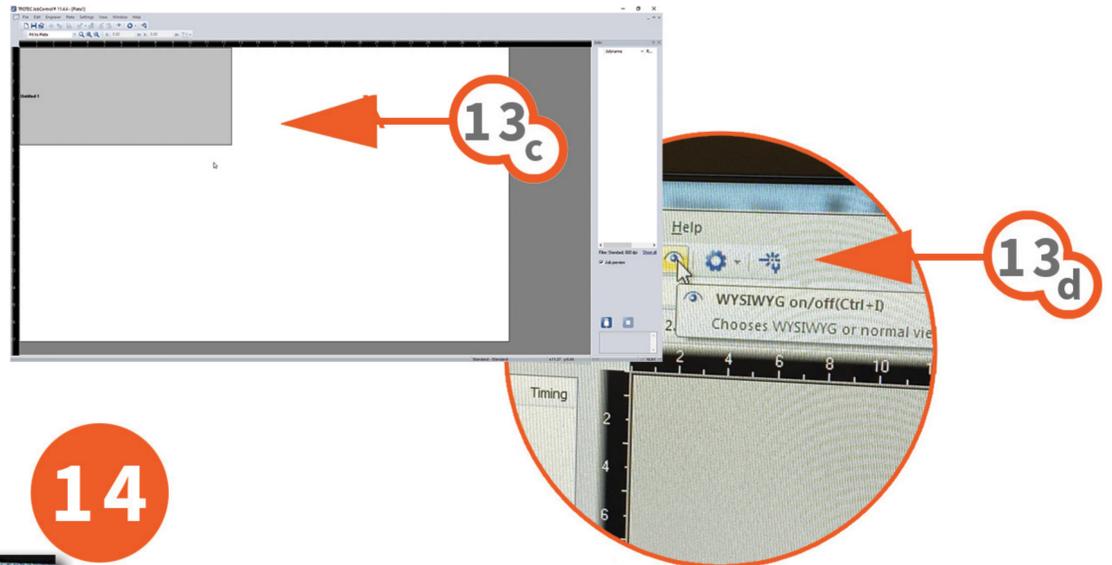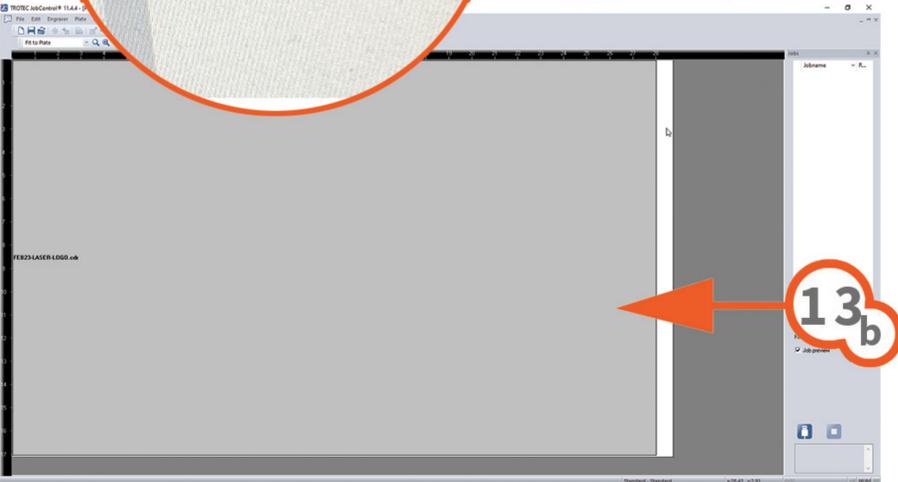
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13

Job Control

13a
Once Job Control opens up, double click your file at the top right.

13b - You should now see a block of grey with a white strip down the right side.

13c - If you instead see a smaller grey block, please ask the tech to change the settings.

13d - Now click on the Eye Icon at the top menu

14
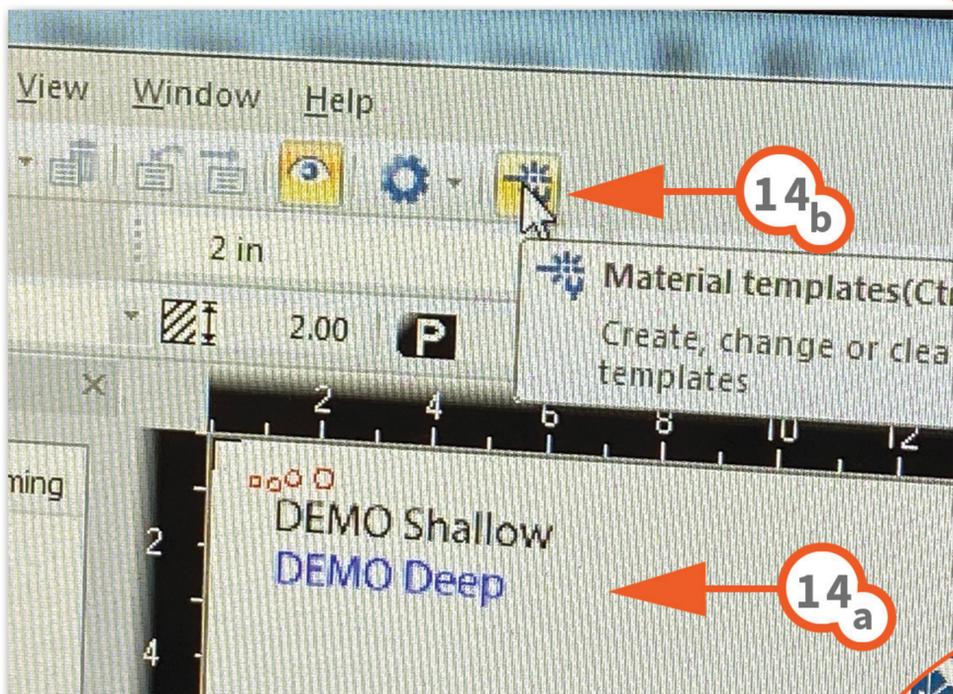
14a - Your coloured lines should now be visible on the screen. If they are not pleaase ask the tech for help.

14b - Now click on the last icon on the top menu....

14c - This will open the material selection menu.

14d - Now select one of the Makerspace folders: Cut & Engrave or Cut Only

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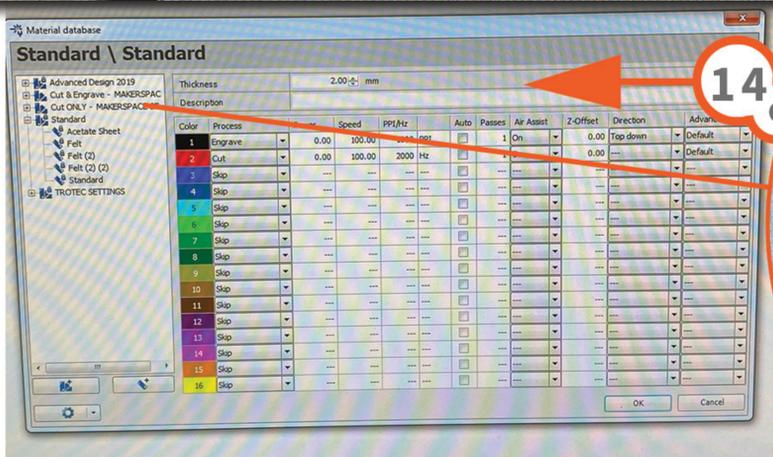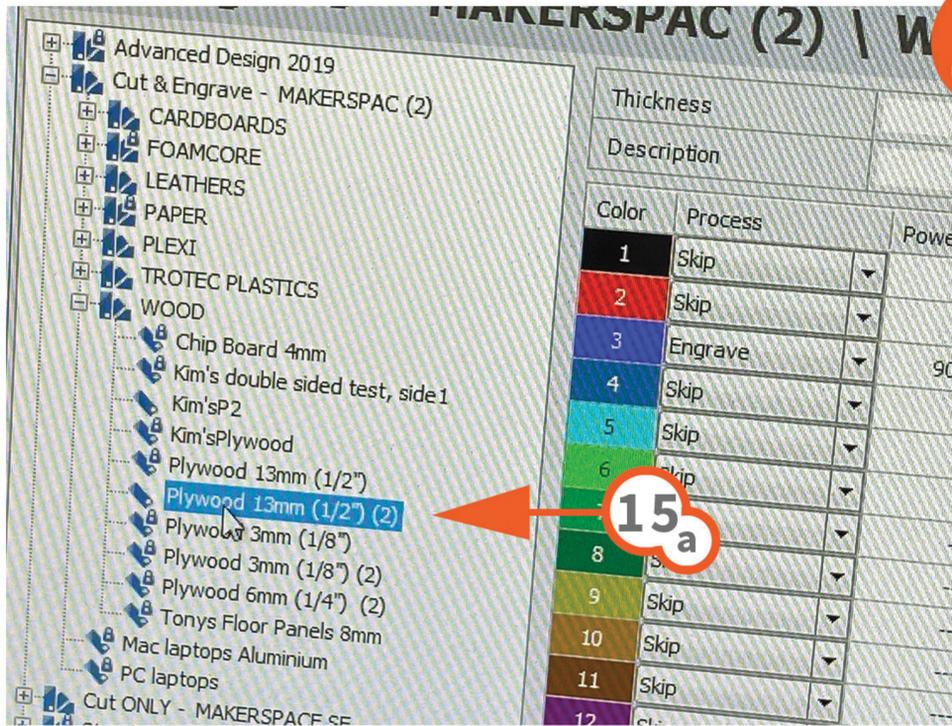**Langara.**
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15

Job Control (cont.)

15a
Then select the specific material you are using (there is a sample board above the laser to help you). This will automatically setup the best settings to cut and engrave your material.

15b
What the settings are actually doing:

Power:
Strength of the laser beam.
The more power, the deeper the cut, and the faster the head can travel.
e.g. Use full power to cut through plywood.
e.g. Use low power to cut through thin cardboard, or it could burst into flames.

Speed:
The speed that the head travels, the slower the speed, the deeper the cut.
e.g. Use fast speed to cut thin cardboard
e.g. Use slow speed to cut through plywood.

PPI/Hz:
The PPI parameter (=pulses per inch) determines how many laser pulses per inch are used for engraving. To achieve a good result, this should be the same or a multiple of the dpi selected in the print setting. If you set this parameter to "Auto," JobControl automatically determines the optimal resolution of the laser pulses.
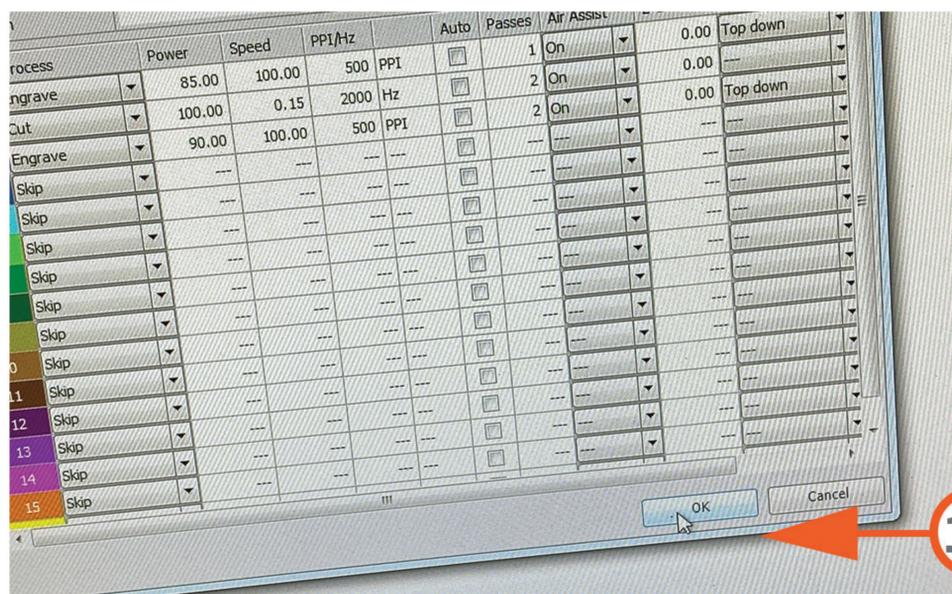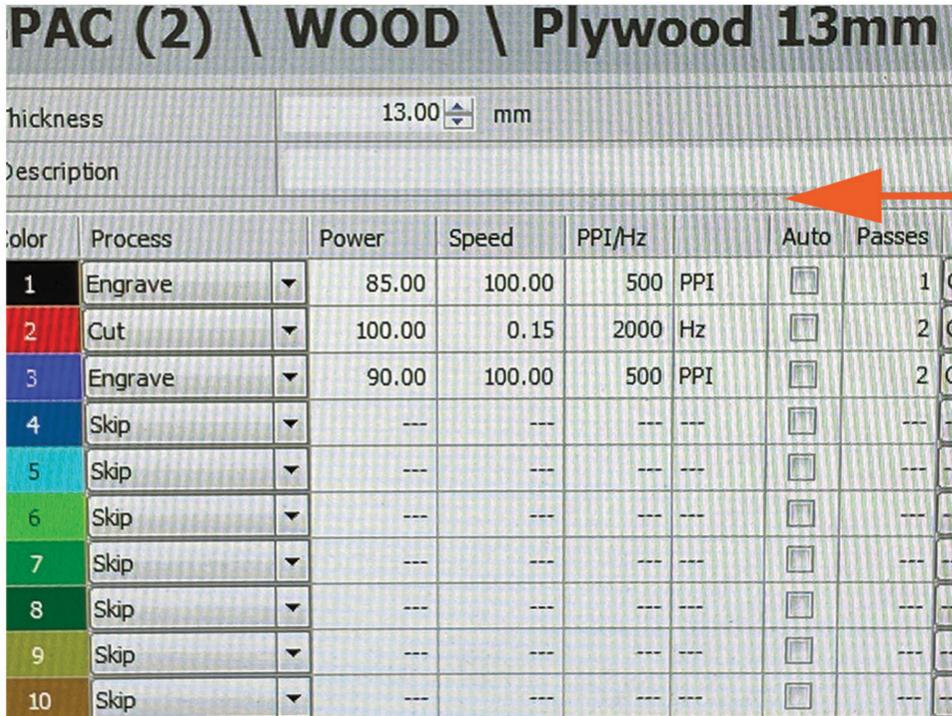
Passes:
The number of times it goes over your files cuts and engravings.
e.g. I use multiple passes if I want to limit the amount the laser could burn the material. This is also usefull for deep engraving.

15c
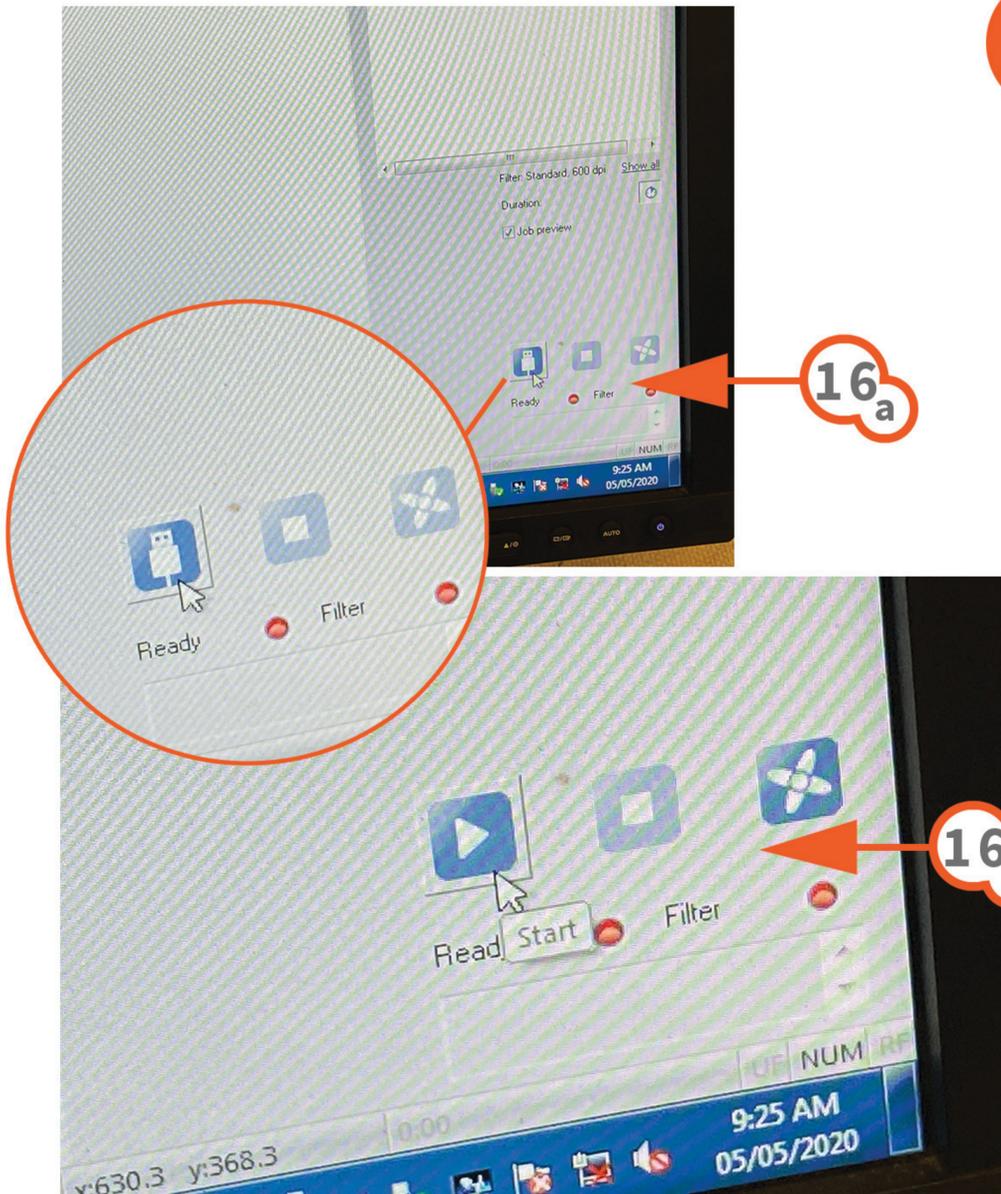Once your material is selected, click on the OK button.

16

Job Control (cont.)

16a
Now click on the READY button in the bottom corner.

16b
After it finishing processing your file (a few seconds) the button will now have an arrow on it, click it again.

17

Laser

17a
The laser will now start.
IF THE CHMABER FILLS WITH SMOKE YOU DONT HAVE THE 2 FANS ON!

It will engrave shallow first, then engrave deep and finally it will cut. There will be some time between operations, so be patient.

After it is done cutting, and the head has gone back to 0,0... allow a few seconds for any smoke to clear, then open up the laser and take your piece out. Turn off the laser* and the fans after use. **Delete your file and close JC and Illustrator.**

17b
*You can put the laser in a suspend mode if someone is waiiting to use it. Just press this button (but not while the laser is running).