Quick guide to Trotec Ruby

Workflow on laser machines is following:

1. Focus the laserhead
2. Prepare design
3. Align material
4. CUT!

Safety When using the Laser Cutters
Never leave the laser cutter unattended

The laser cutters are a huge safety risk and jobs should always be monitored.

In case of fire stop Immediately and call a staff member for help

Always alert a staff member in the case of a fire even if you think it's under control.
There is a risk of damage to persons and equipment and a staff member will need to reassess the lasers.

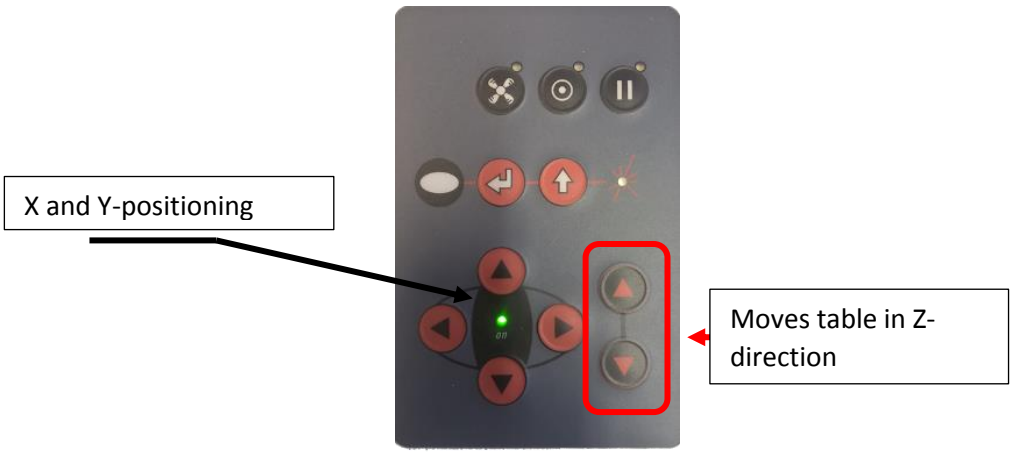
Laser Collision Risk

To protect the laser never leave objects that could collide with the laser head on the bed of the laser,
and make sure your material is flat.

Step-by-step instructions:

Focusing the laser

Before cutting the laser must be focused. Place the material you are using on laser's work surface.



(Fig 1: Keypad, buttons for adjusting table height marked in the picture with red)

Place the focusing tool (found from inside the cutter) to its place according Fig.2 and adjust the height of the platform so that that the focus is right using the keypad.

Note the orientation of the focus tool and it's placement. Place the tool according the image and lift the table until tool falls down. Use Z-arrow keys descriped in Fig.1
Focus is now set.

After focusing take the tool away and put it back to its original place.

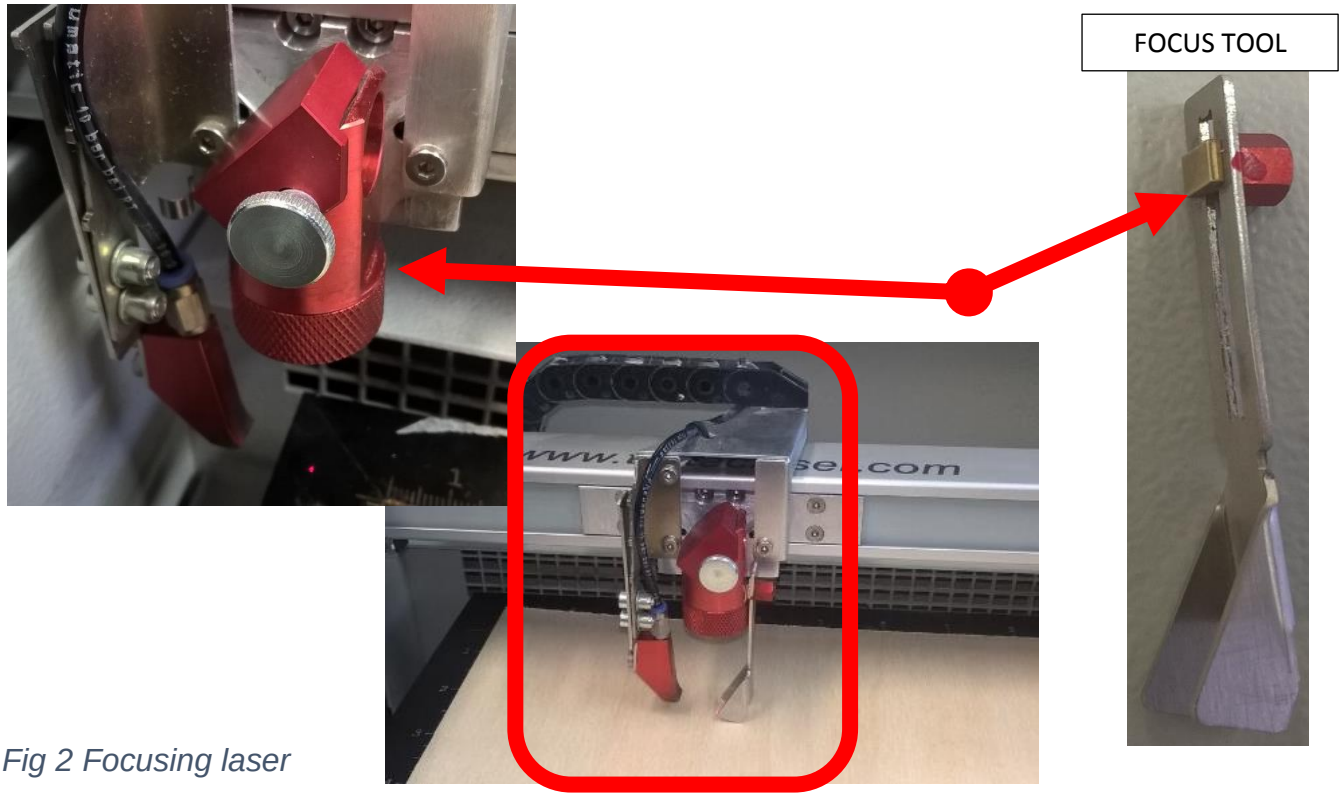
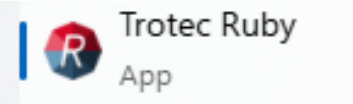


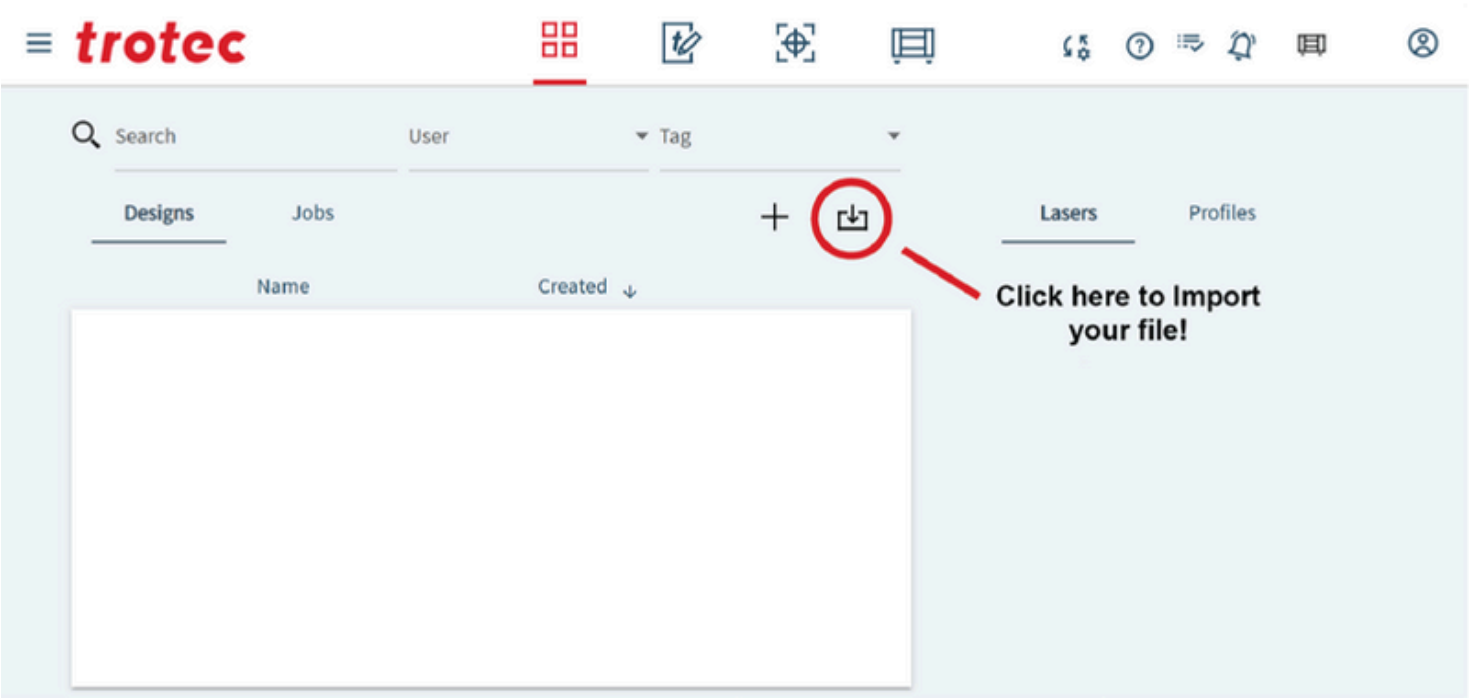
Fig 2 Focusing laser

Prepare Desing

Open Ruby app in windows



You can import designs in both manage & design tab



We can either Drag and Drop in our file, or click on the import file button and select our file to upload.

Ruby will accept any of the following;

*.dxf; *.svg; *.pdf; *.ai; *.png; *.jpg; *.jpeg; *.bmp; *.tsf; *.tld; *.tlj; *.zip; *.cdr;

Be careful when importing .dxf file types as Ruby will often change the scale on import

Common Mistakes

Exporting your design at the incorrect scale - double check your scale is 1:1!
Exporting the wrong layers - Make sure your design is not on a hidden layer when exporting .ai files!

How To
The design page is where we can make small adjustments to our designs, as well as assign colours to our paths in order for our lasers to perform the correct functions.

Any Parts of your design you'd like to be Cut need to be on the Red and need to be a Path or line.

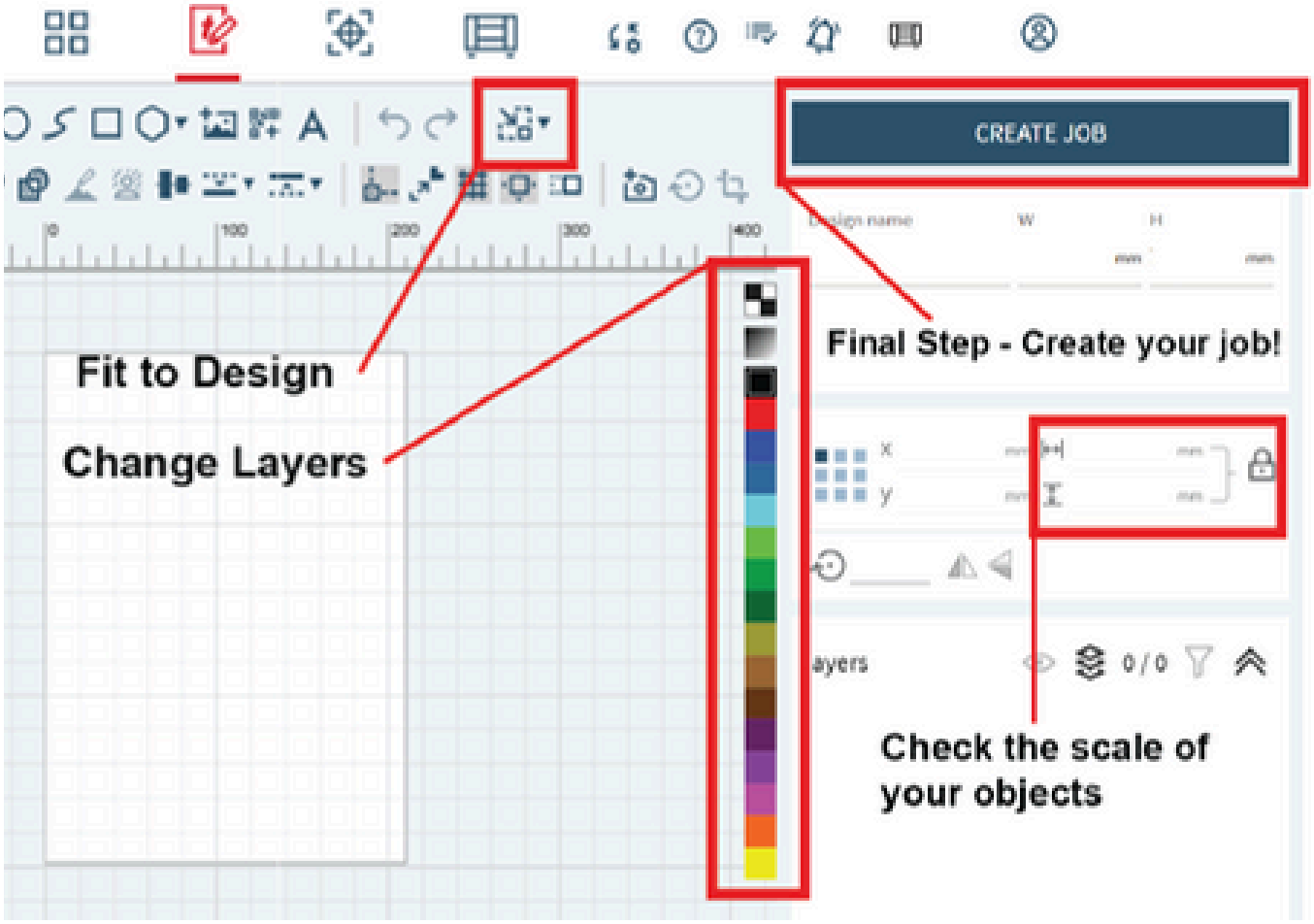
Any Parts of your design you'd like to be Draw need to be on the Blue and need to be a Path or line.

Any parts of your design you'd like to be Engraved need to be on the Black layer and they need to be a Fill or solid shape.

After we change our colours click on Fit to Design then Create Job to send your file to the prepare page

Common Mistakes

Wrong scale - double check the scale of your job before sending to check it's come out at the right size!
Check Engravings - If you want a part of your design to be engraved it has to be on the black layer and a filled shape



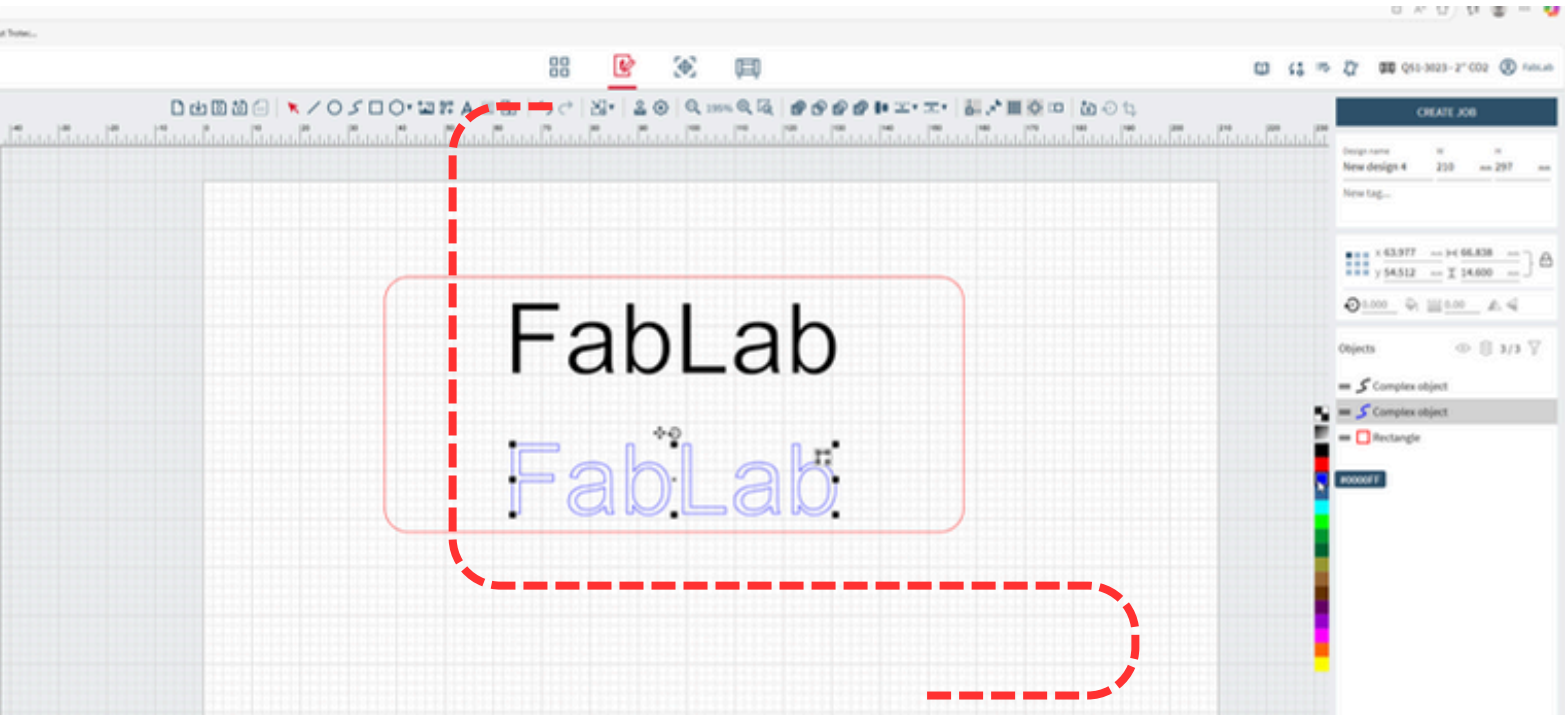
In design tab you can define different functions by color:

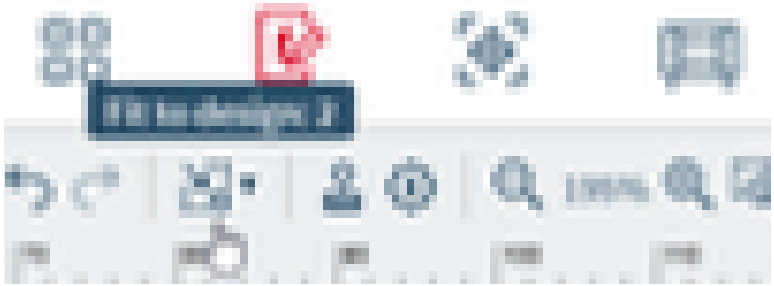
Red is for cutting

Blue is for drawing lines, basicly it is cutting with low power to achieve thin lines
it is faster than engraving thin lines

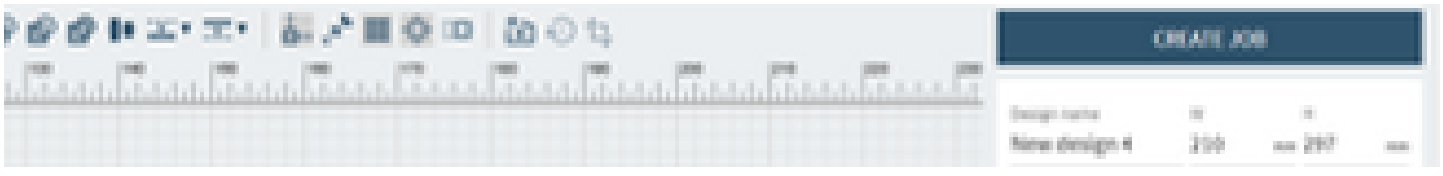
Black is for engraving, you can engrave photos in grayscale, objects with black fill color and different line thicknesses.

Remember to use fit to desing function and check margin is correct! Default is 2mm





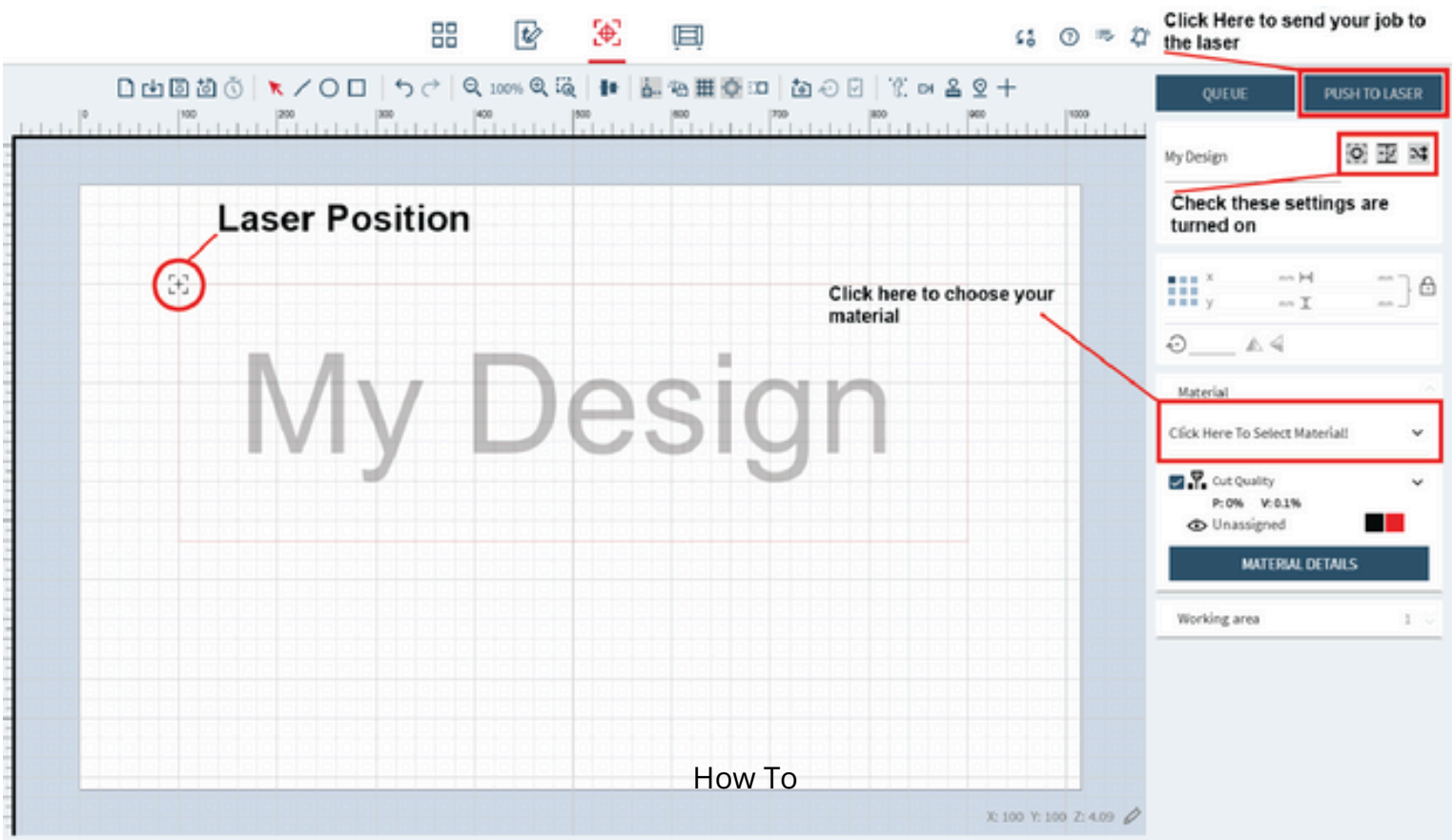
After defining your work, press CREATE JOB from the upper right corner.



Prepare tab

In the prepare tab you position your design and select material properties from the **MATERIAL** drop down menu

- Position your design in the laser table
- Select correct parameters for material
- Push to laser



How To

To prepare our job for the laser cutter first we have to position our job on the bed, to help us do this we can use the red laser positioning dot as a guide.

Next we select our Material, make sure you have the correct material thickness selected. If you cannot find an existing setting for your material ask a staff member for help.

Before sending your job ensure Inner Geometry is First, Skip Overlapping Cutlines is On, and Geometry Optimization is on.

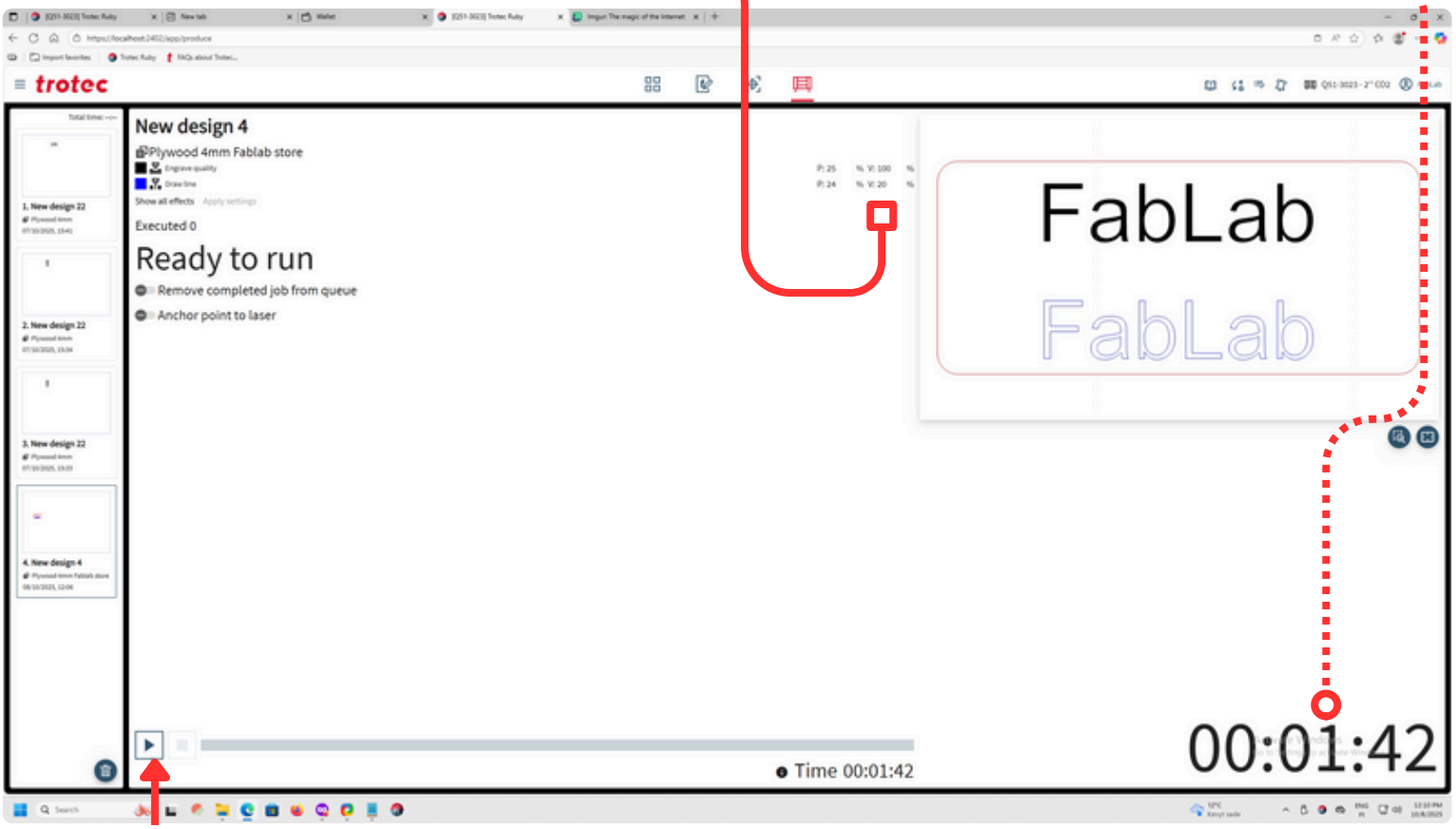
Once you have done all these steps you may Queue your job to add it to the next in the list for the laser, or Push To Laser to put your job at the top of the list and run it immediately.

Common Mistakes

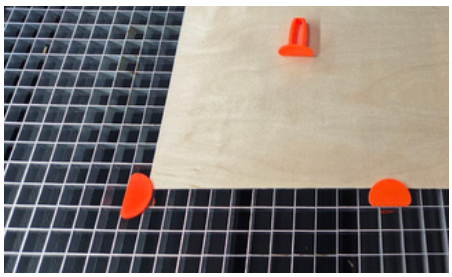
Not positioning the job correctly on top of our material
Selecting the wrong material
Using the wrong colours

PRODUCE TAB

This tab shows your work, cutting parameters and work cycle time



Make sure your material is flat on the cutting table.
Use orange fittings to flatten material or masking tape
Make sure not to cut or collide with fittings



To start cutting press **PLAY** from software or from the machine
Before starting **MAKE** sure laser is,

- On focus
- Material is flat
- Correct cutting parameters
- Correct scale