

SOP

EPILOG FUSIONPRO LASER

Training is required to use this equipment
You must stay with laser while it is in use
Make sure ventilation is on prior to use



FUSION PRO 32 SPECIFICATIONS

MAXIMUM MATERIAL DIMENSION – 30” x 20”

MAXIMUM MATERIAL THICKNESS FOR CUTTING – 1/4”

APPROVED MATERIALS

Acrylic (Acrylite, Altuglas, Chemcast, Lucite, Optix, Perspex, Plexiglass, Repsol, Setacryl)

Plywood

Basswood

Balsa wood

Solid wood (raster only)

Chipboard

Mat Board

Poster Board

Paper

ABS Plastics

Laserable Stamp Material

Glass

Corian

Anodized Aluminum

Powder Coated or Painted Metals

Metals with Etching Tape Applied

BANNED MATERIALS

Materials containing chlorine (PVC, Moleskin)

Polycarbonate (Barlo, Calibre, Hyzod, Lexan, Makralon, Palsun, Sustanat, Tecanat, Tristar, Makroclear, Arcoplus)

Fr4 Boards (resin reinforced fiberglass composite)

Fiberglass

Glass and metal can be etched but not cut on the laser.

Unless the metal is painted, anodized, or powder coated, a special CerMark spray or tape is required.

SAFETY

Make sure ventilation is on prior to use. The button to start the ventilation is located on the west wall and pulls to activate. This will pull smoke from all four lasers.

Unlike the other NIS lasers, which have an external fan, the FusionPro has an internal fan to blow air at the point where the laser makes contact with the material.

2" Flame is okay for short lengths during a cutting pass. If the flame persists or your material is on fire, push the pause button the top of the laser.

If the flame persists, open the laser and mist the flames with plain water from the spray bottle.

You may also blow on it, or smother it with scrap plywood. If a fire extinguisher is needed, contact NIS staff immediately.

The laser will not fire when the lid is open.

Never leave the laser while it is in operation.

Never operate more than one laser simultaneously.

TURN ON THE LASER

The Epilog FusionPro turns on with a key on top of the laser.



ON/OFF KEY

The laser must be turned on to receive your job.

Unlike the other NIS lasers, **do not** log into the FusionPro 32's computer under **GUEST**. If you are logged in as a **GUEST** you will not be able to use the **JOB MANAGER**.

USERNAME: .\Innovation

PASSWORD: 2021Transformation

SETTING UP YOUR FILE TO PRINT

Open your project using Adobe Illustrator. Make sure your project's artboard is the same size as your piece of material.

Your artboard is the white area in your design in Illustrator.

MAXIMUM MATERIAL SIZE IS 32" x 20"

To Vector (cut) lines must have a stroke size of .12 or smaller. NIS recommends .001 stroke width to avoid confusion and for consistency between AutoCad and Illustrator.

To Raster [engrave] lines must be .13 or thicker.

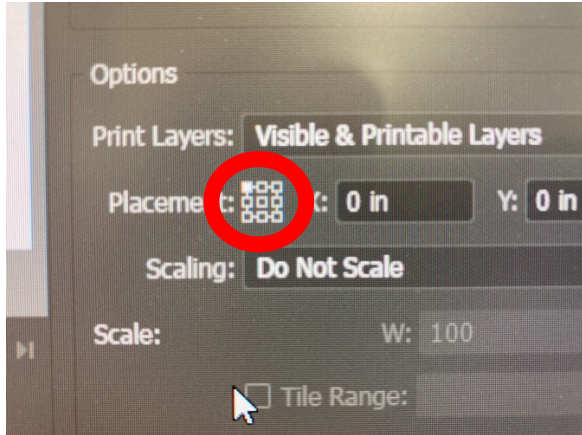
The FusionPro 32 allows you to raster different parts of your file with different intensities (speed/power). To do that, simply make each section of the project a different color.

SENDING YOUR FILE TO THE JOB MANAGER

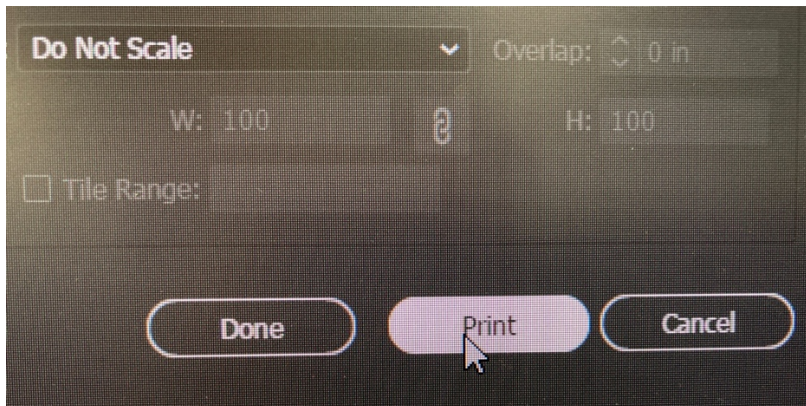
With the FusionPro, you will need to send your file first the **JOB MANAGER** before you can send it to laser.

Make sure your file is saved to a name you will recognize.

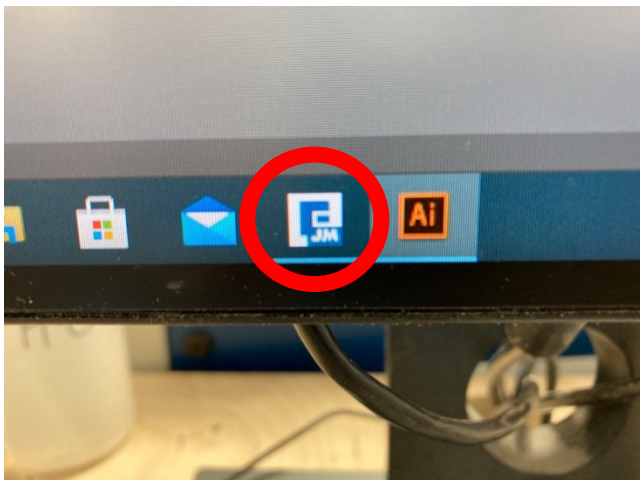
Under PLACEMENT options, click on the top left box. This will make your job easier to find in the **JOB MANAGER**.



Select **FILE >>> PRINT**



This should automatically open your file in the **JOB MANAGER**. If you are the first person to use the laser for the day, you may have to click on the Job Manager on the **TASK BAR** and resend.



SETTING UP YOUR MATERIAL IN THE LASER

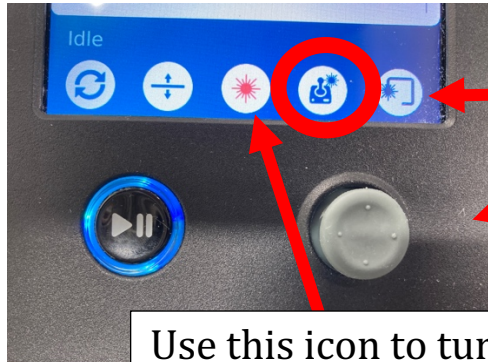
The FusionPro is equipped with a camera on the underside of the lid. You can use this when you send your job to the laser to place your project exactly when you want on the material.



Because the camera has a very wide-angle lens, the image can become distorted in the corners of the laser bed. Ideally, the material should be centered in the laser, under the camera. If it's large enough, you can push your material to the back edge of the laser.



To move the laser, go to the **CONTROL PANEL** and press the **JOG** button.

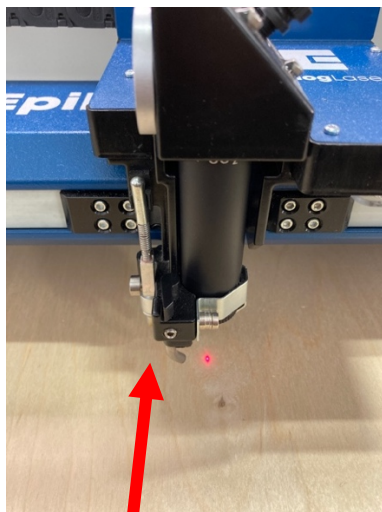


Push this icon and then use the joy stick to move the laser.

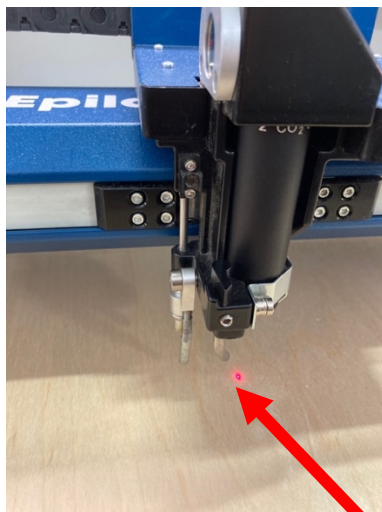
Use this icon to turn on the laser light showing the position of the laser.

FOCUS

The focus tool is attached to the laser housing. It needs to be flipped down. It is held in place by a magnet. The laser bed should be raised or lowered until the material just touches the material. Make sure to return the focus tool to the up position when you are done focusing.



Focus Tool

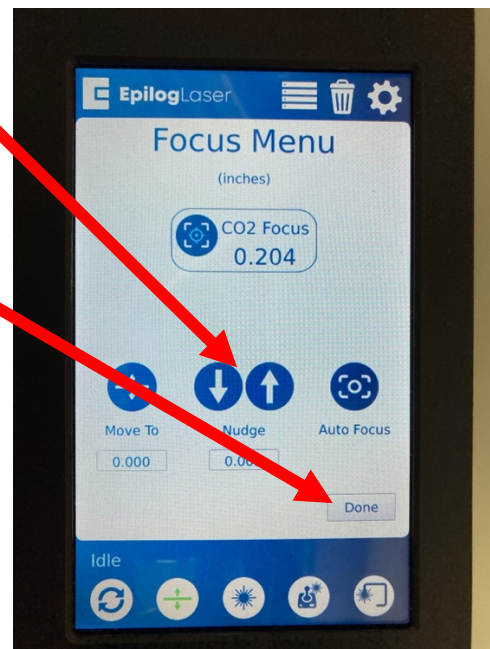
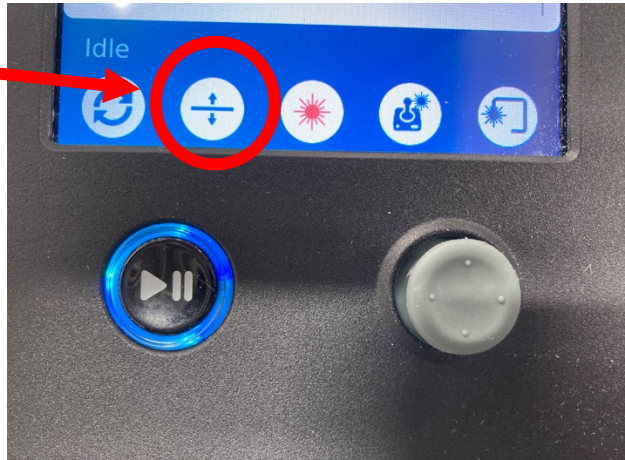


Focus Tool flipped into position

To move the laser bed up or down, you need to use the **CONTROL PANEL**

Push here and then use the joy stick to move the laser bed up or down. **DO NOT USE AUTOFOCUS.** It has been disabled. The bed should be raised until the material is just touching the focus tool. You can move the laser bed up or down by a .005 inch increments use the **NUDGE** tool.

When the bed is at the correct height, press the **DONE** button on the control panel .

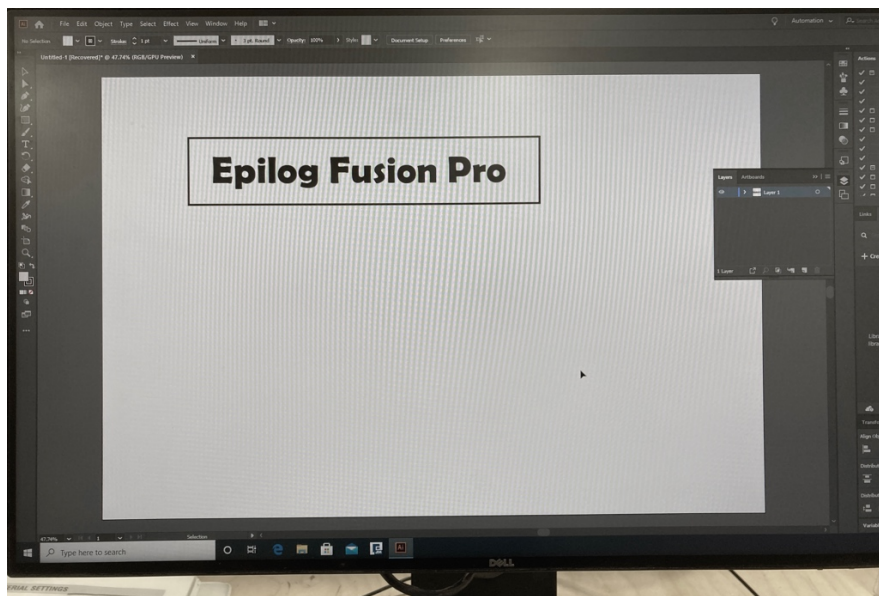


Press the **PARK** icon to send the laser back to the top left corner. If you do not park the laser, the laser arm may block the view of the camera.

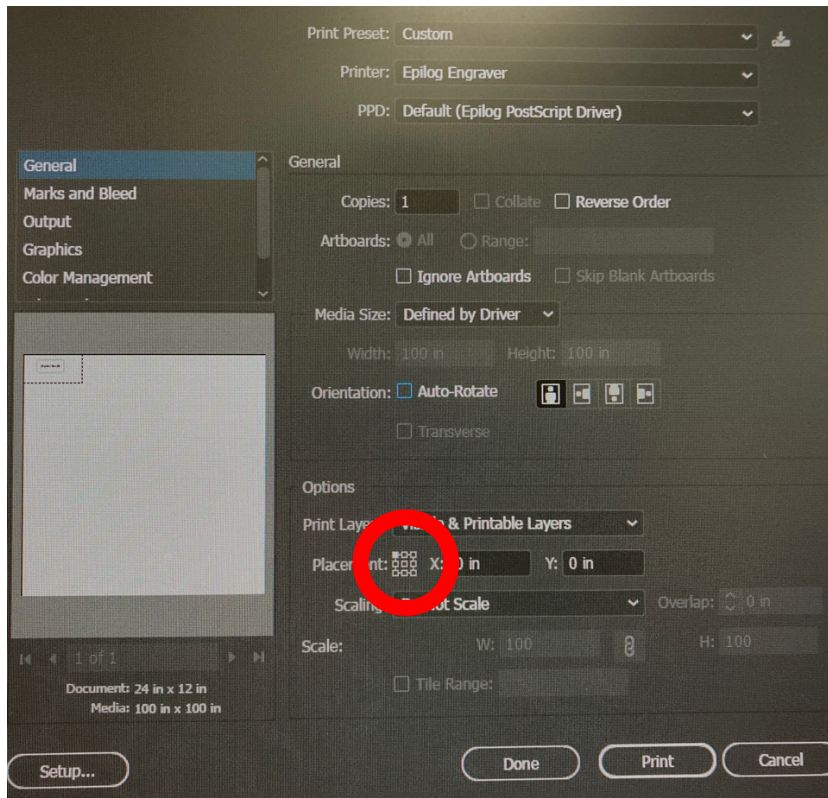


SENDING YOUR FILE TO THE JOB MANAGER

To send your project from Illustrator to the **JOB MANAGER**, simply go to **FILE > PRINT**.



Highlight the upper left square under **PLACEMENT** and the click **PRINT**.

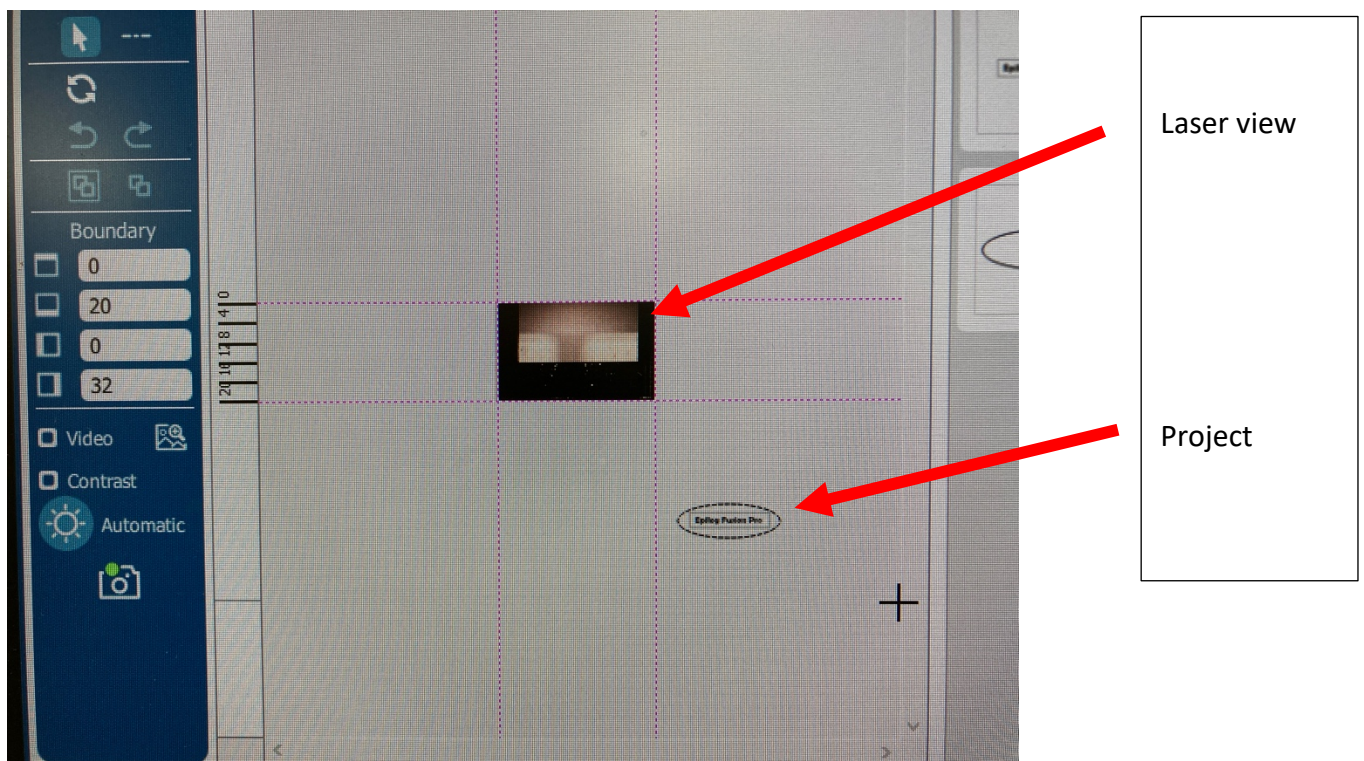


This should open up the **JOB MANAGER**. The interface will allow you to set the speed, power, and frequency, like the other lasers. It will also allow you to place your design on the material.

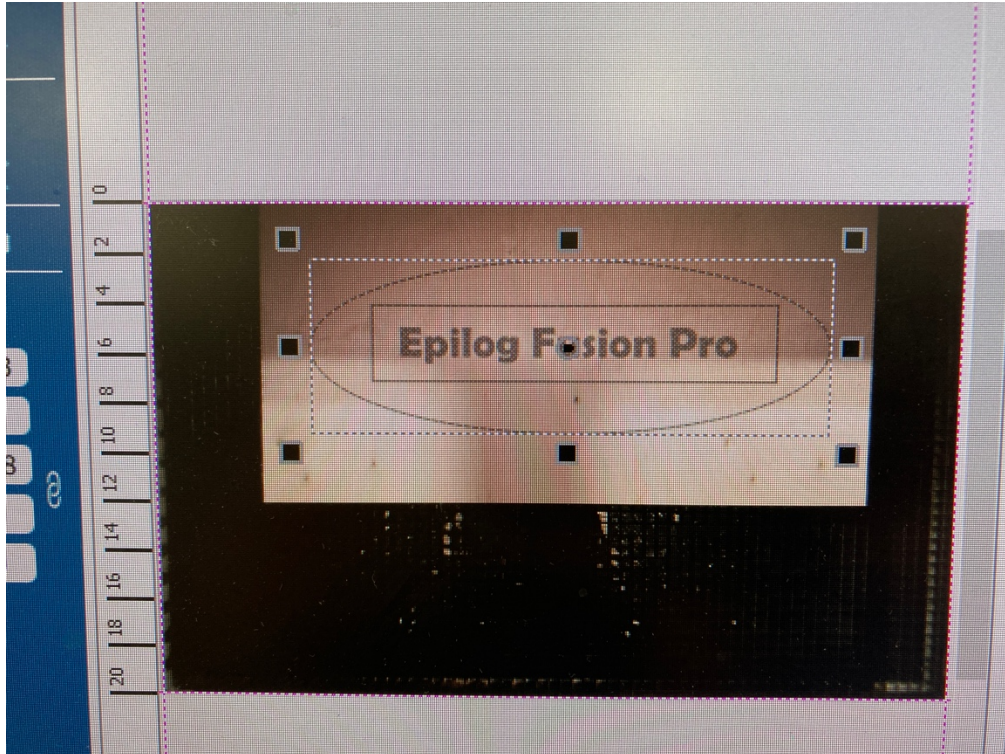
USING THE JOB MANAGER

If the lid of the laser is closed, you will see your project overlaid on the material. Since the home position has not been set, you will need to move it to the desired position.

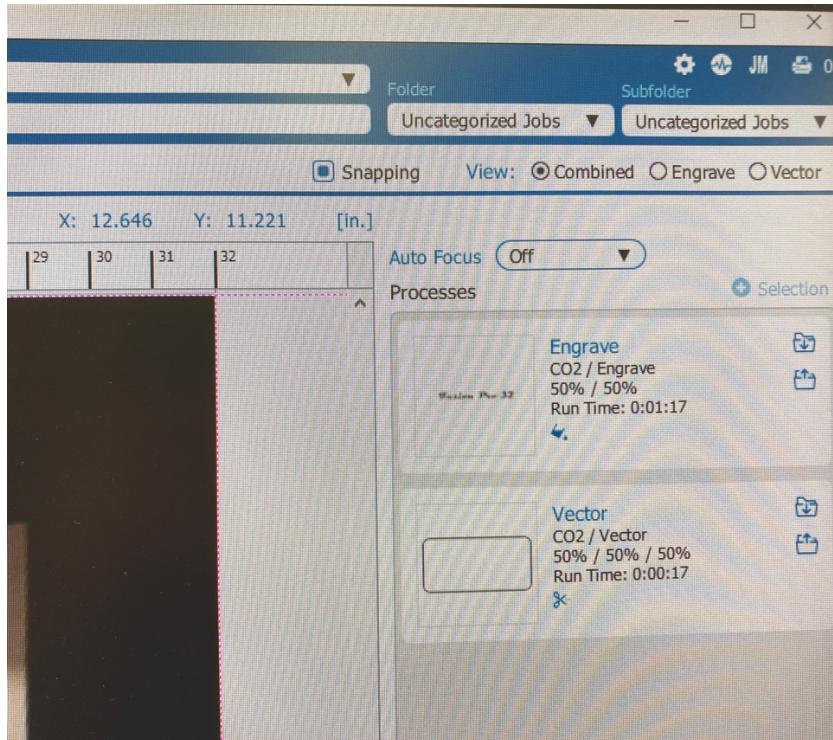
If you don't see your project, use the scroll wheel on the mouse to zoom out until you find it.



You can click on it to drag it where you want it. Use the arrow keys on the keyboard to fine tune the position. You can also resize your project, rotate it, change the aspect ratio, etc.



The **JOB MANAGER** will create separate box for **ENGRAVE** (raster) and **VECTOR** (cutting) for your Illustrator file. Click on each one separately and enter the speed and power and (for vectoring) the frequency.



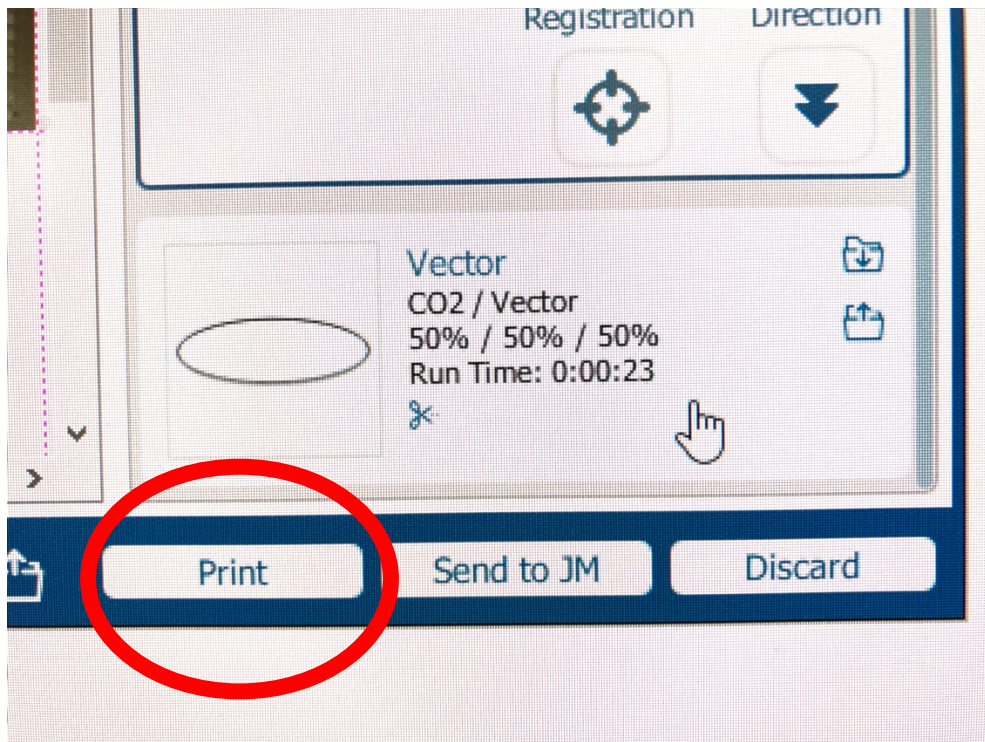
The **JOB MANAGER** will automatically create separate box for **ENGRAVE** and **VECTOR** for your Illustrator file. Click on each one separately and enter the speed and power and (for vectoring) the frequency.

The Fusion Pro 32 is a 60-watt laser.

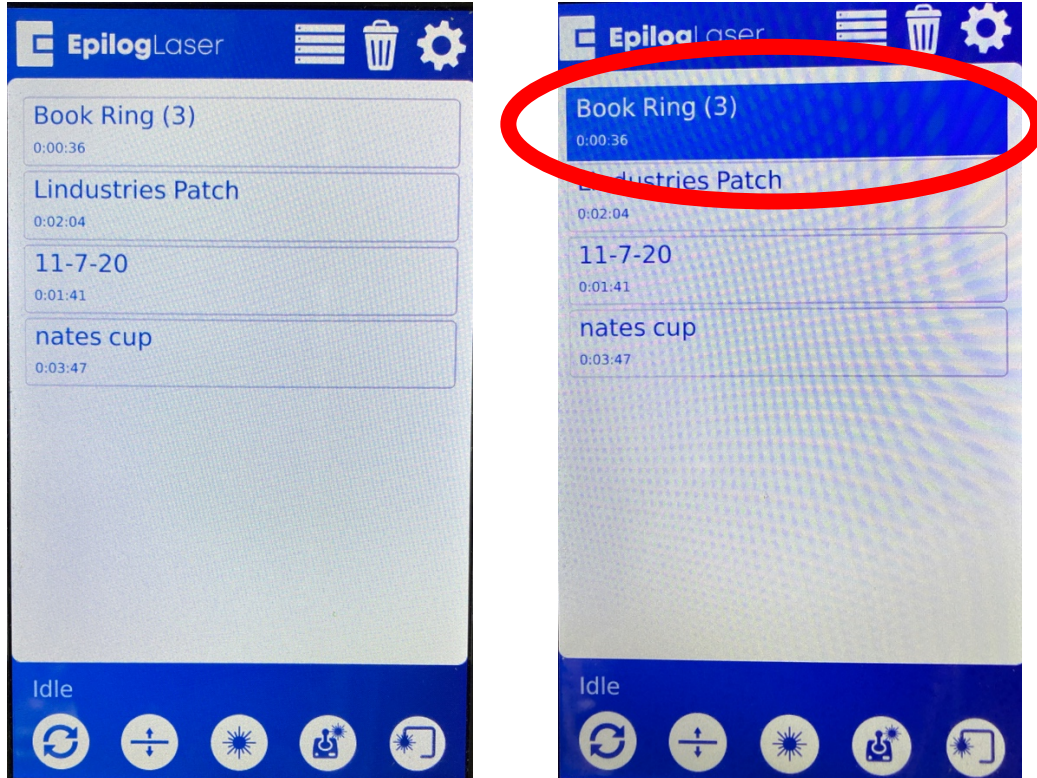
If you decide to you don't want to either **ENGRAVE** or **VECTOR**, use the drop down menu and choose **NONE**.

PRO TIP: If you want to use different raster or vector speeds and power color code your Illustrator file accordingly. When **JOB MANAGER** opens, there is an option to divide your file by color.

After inputting the raster and vector setting, click **PRINT** to send your project to the laser where you will see it listed on the display screen.



The control panel is on top of the laser. When you have sent your file to the laser, it will appear there. The newest files will appear at the top.



You should see your project in the list of jobs on the laser **CONTROL PANEL**, along with the amount of time it will take.

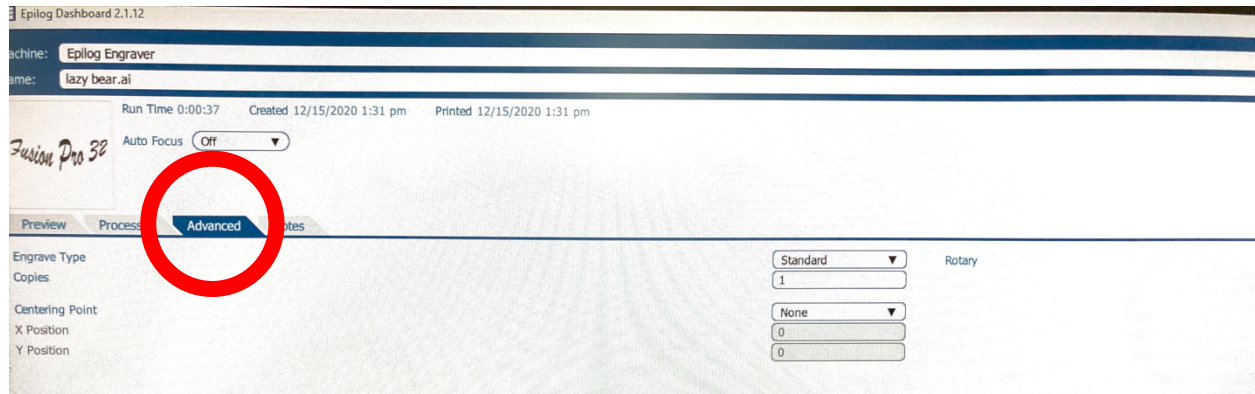
Touch the job you want to run. Your project will be highlighted. Simply press the **PLAY/PAUSE** button to start the laser. Once the laser has started you can also use this to pause the laser.

NOTE: Make sure the lid is closed securely. If the laser arm is moving and the laser is not firing, chances are good the lid is not closed properly.

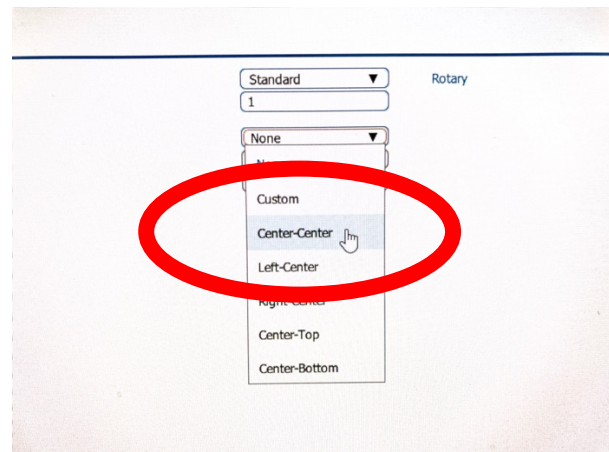
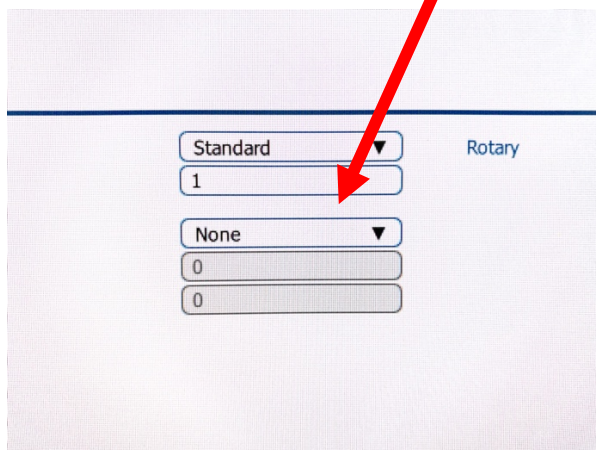
MANUALLY SETTING THE HOME POSITION

If you want to manually set the **HOME POSITION** using the laser, it is a three-step process.

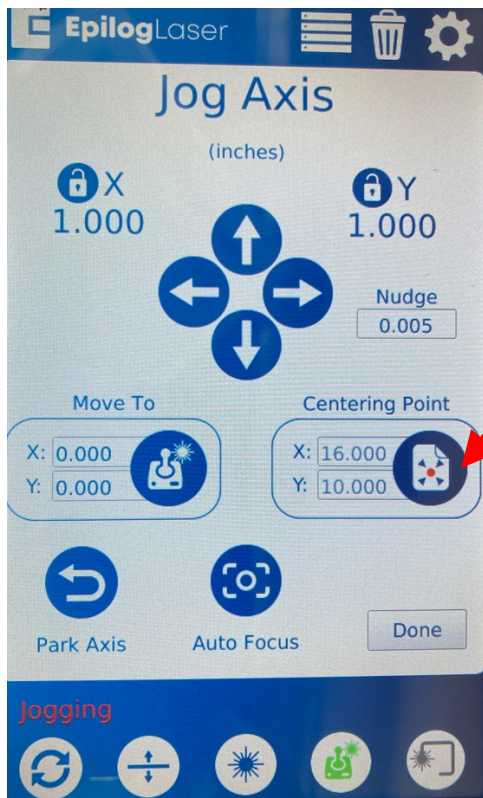
1) In the **JOB MANAGER**, click the **ADVANCED** tab.



2) Use the drop down menu and select **CENTER-CENTER**.



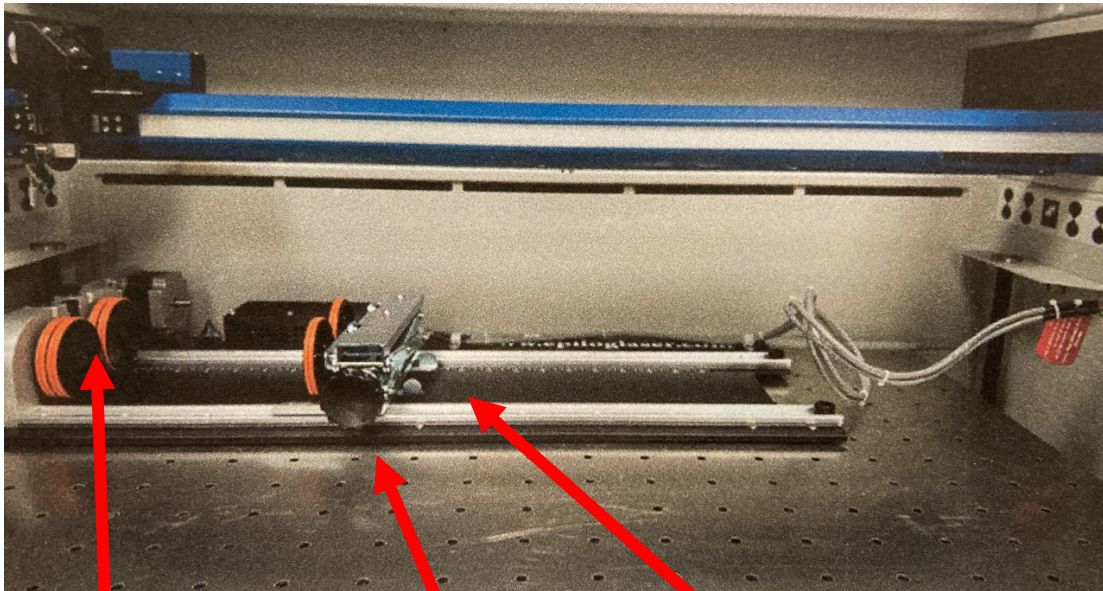
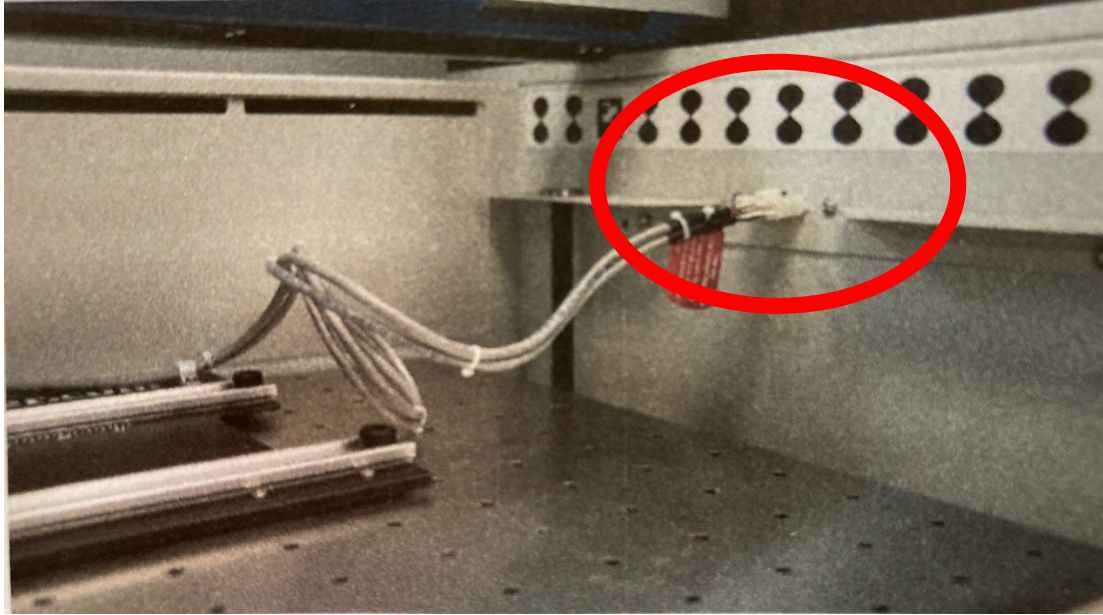
3) **After** you send your job to the laser, click on the project on the display screen, use the joy stick to maneuver to the center of your design and push the red dot under **CENTERING POINT** on the screen.



Once you've set the home position, you can press the **PLAY** button to start your project.

USING THE ROTARY TOOL

To use the rotary tool, turn off the laser and remove the vector grid (with the Fusion Pro 32 only the grid itself needs to be removed, not the tray beneath it). Replace it with the baseplate. Plug the rotary tool in and push the rotary tool all the way to the top left. Turn the laser back on.



Clip the lip
of your
glass here.

Rotate the knob to
raise or lower the
back of your glass.

Squeeze the tabs to
move the back of the
rotary tool in or out for
long or shorter glasses.

