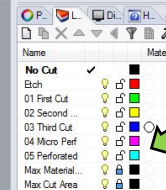
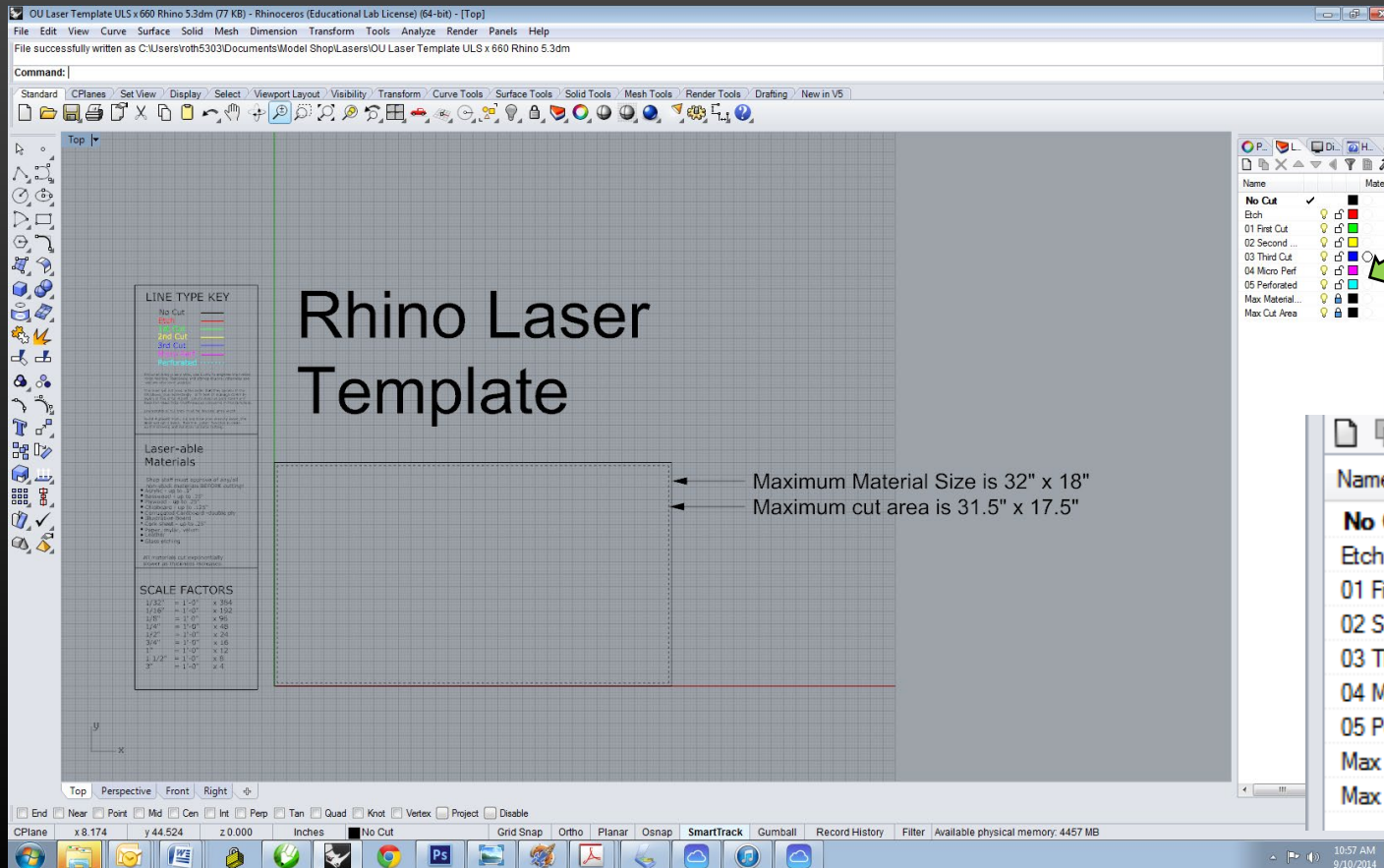


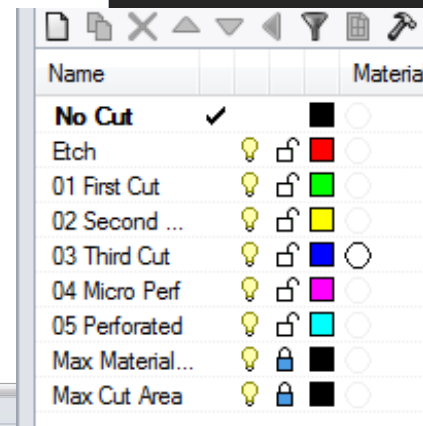
Laser cutting and engraving from Rhino

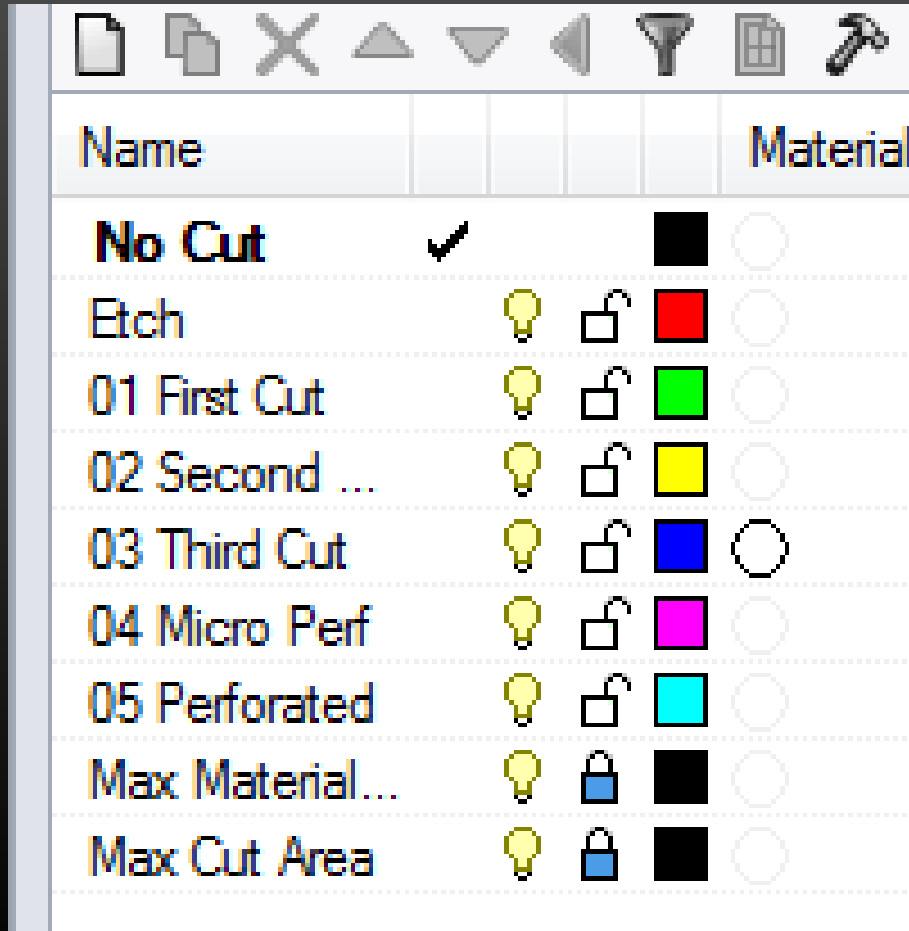
Quick Start Guide

The **Rhino Laser Template** found on the COA website is helpful to get you started but not necessary.



Layers are divided into colors and labeled for laser cut style.





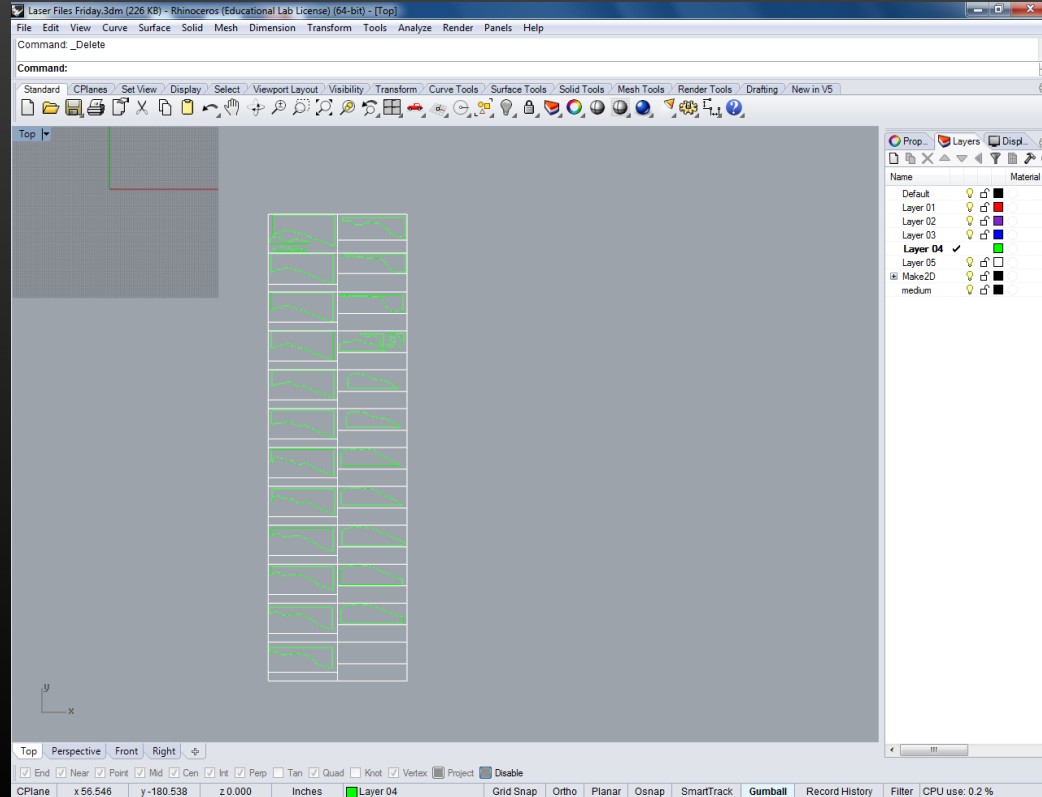
The laser only reads RGB colors in the following order: Black, Red, Green, Yellow, Blue, Magenta, Cyan, Orange.

Naming your layers will help to keep things organized.

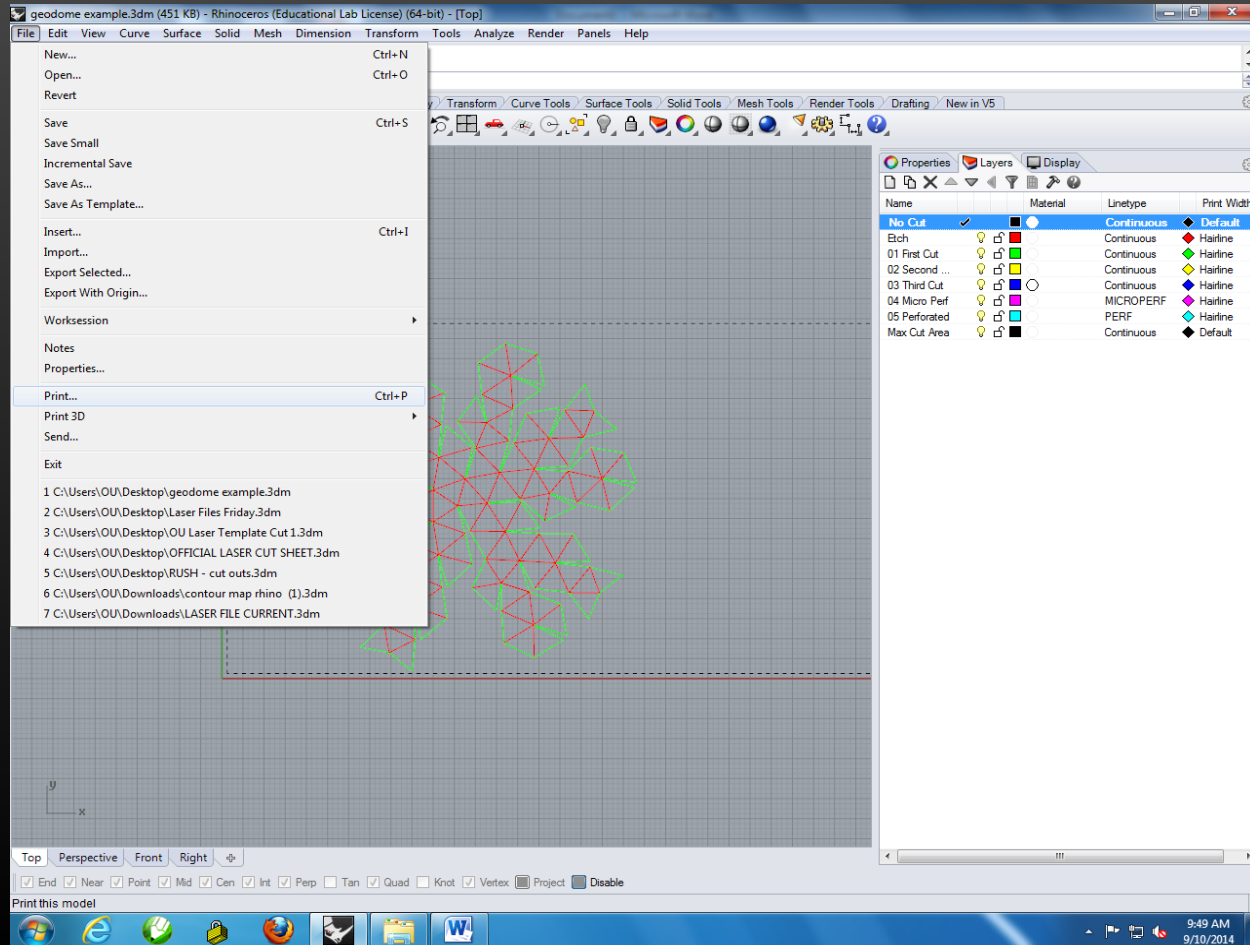
Example: Etch, Cut 1 and Cut 2.

Line Weight should be Hairline. A wider line will not register with the laser as a “vector” (or cut line) and can only be “rastered”.

- Multiple sheets can be laid out on one simple file.
- Be sure to draw a black/white box that is the size of the laser bed.
- Place items to be cut inside each box.



When your file is ready to laser cut, select **“Print”**



Printer should be **VLS6.60**

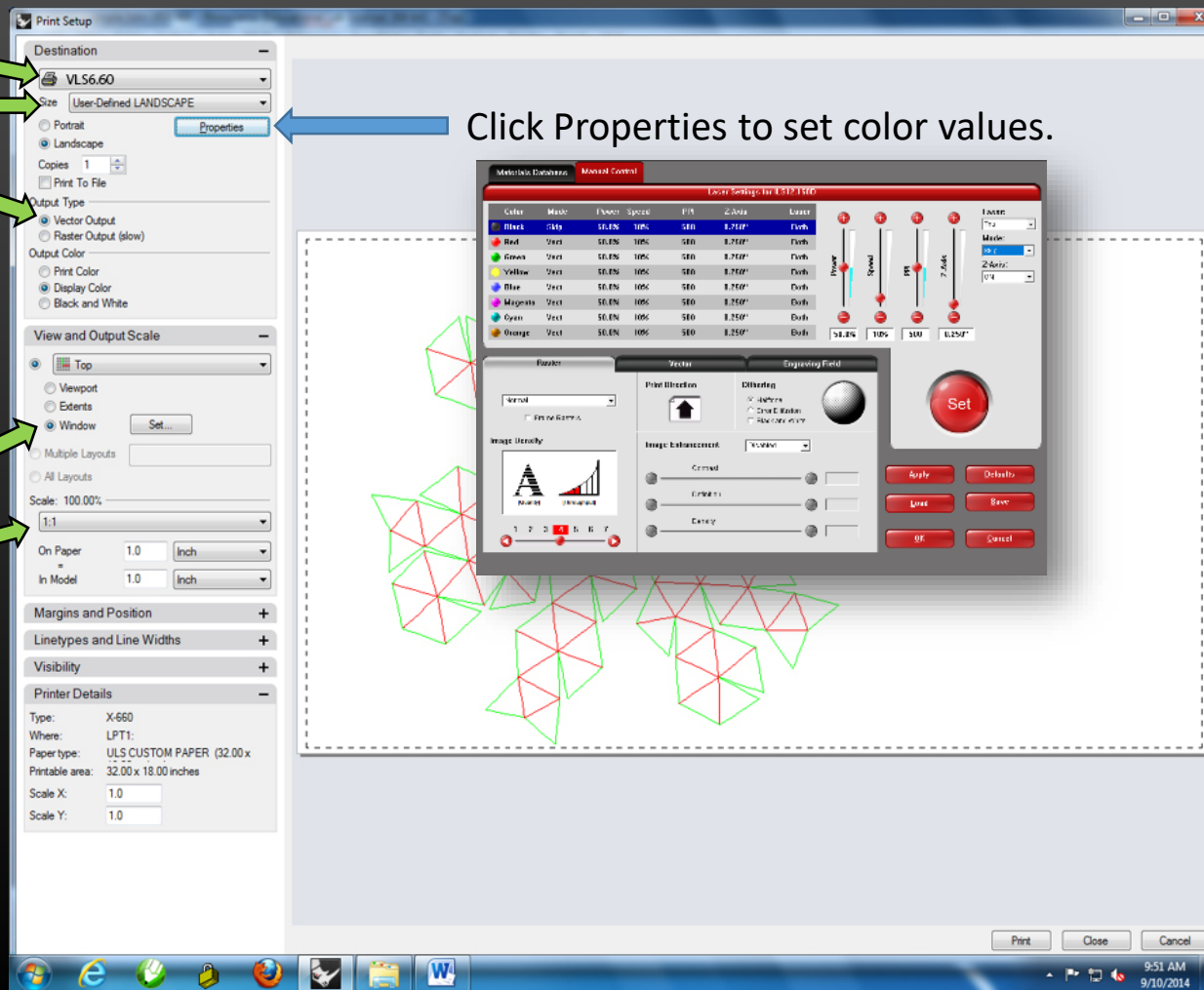
User-Defined **LANDSCAPE**

Select vector cutting and engraving.

Note: Raster would only be needed for an image, text body, or wide line.

Make sure you are in top view.
Click "**Set**" to set your window to cut.

Adjust your scale here.

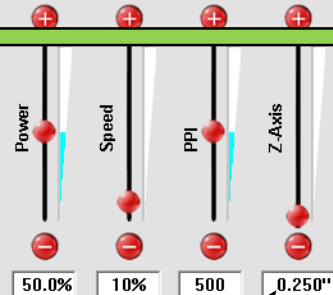


Materials Database

Manual Control

Laser Settings for ILS12.150D

Color	Mode	Power	Speed	PPI	Z-Axis	Laser
Black	Skip					
Red	Vect	50.0%	10%	500	0.250"	Both
Green	Vect	50.0%	10%	500	0.250"	Both
Yellow	Vect	50.0%	10%	500	0.250"	Both
Blue	Vect	50.0%	10%	500	0.250"	Both
Magenta	Vect	50.0%	10%	500	0.250"	Both
Cyan	Vect	50.0%	10%	500	0.250"	Both
Orange	Vect	50.0%	10%	500	0.250"	Both



Laser:

Mode:

Z-Axis:

ON

Set

Apply

Defaults

Load

Save

OK

Cancel

Choose Mode:

VECT for line cutting and engraving.
RAST to raster engrave a text body,
solid fill, or image. SKIP if you don't
want a color to cut.

RAST/VECT not recommended.

Be sure Z-axis is ON and set to
the thickness of your material.

Click the specific color to
adjust the Power, Speed & PPI
(Pulses Per Inch.)

Settings guide can be found at:
http://www.engraversnetwork.com/files/MVX_Laser_Settings-Guide.pdf

Press "Set" Button before
you select your next color
to avoid group setting.

Click OK when done.

NEVER SAVE

Raster

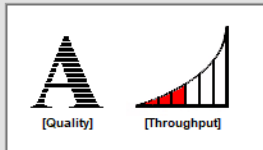
Vector

Engraving Field

Normal

☐ Frame Rasters

Image Density



Print Direction



Dithering

- ☒ Halftone
- ☐ Error Diffusion
- ☐ Black and White



Image Enhancement

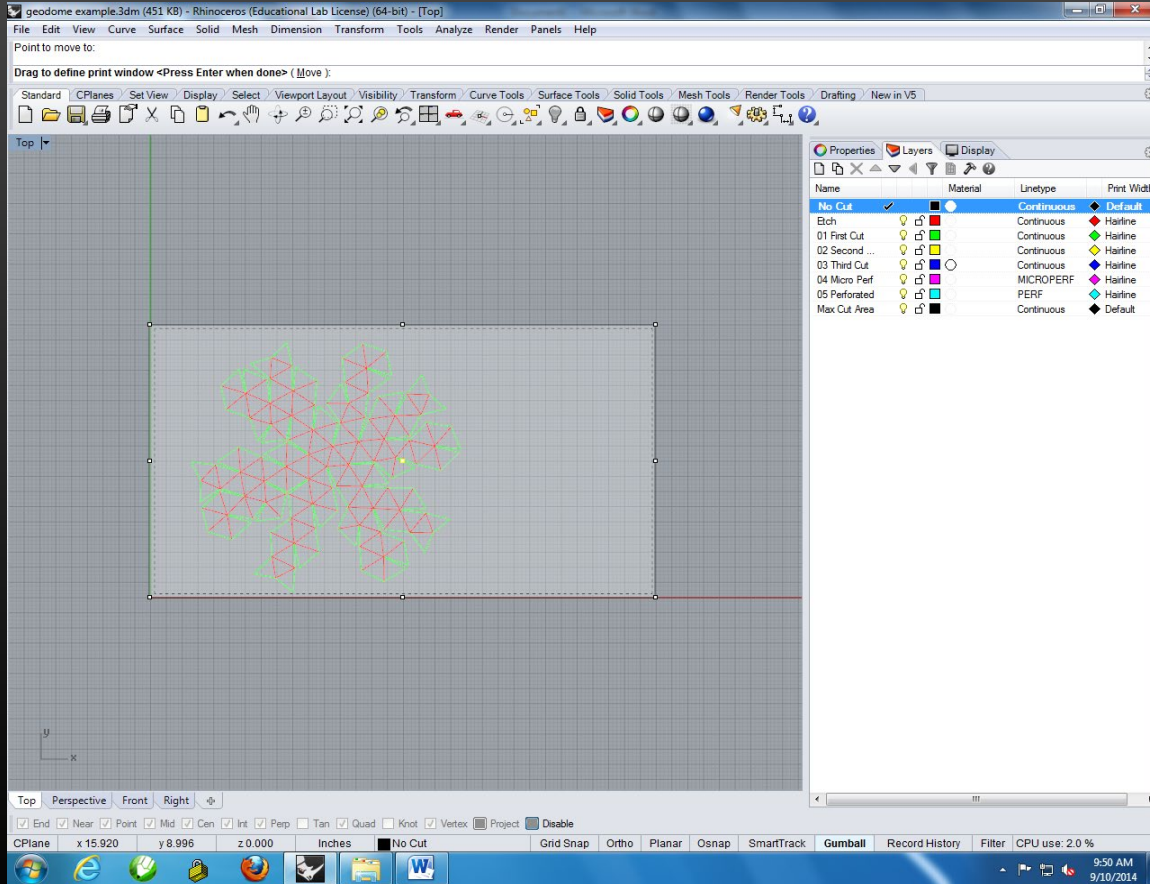
Disabled

Contrast

Definition

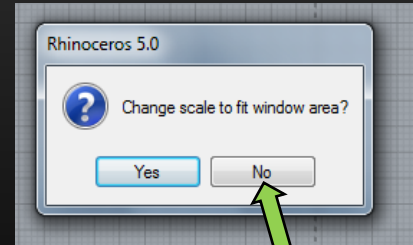
Density

To set your window to cut, drag the selection box over your desired sheet/bounding box to cut, then press “Enter”.

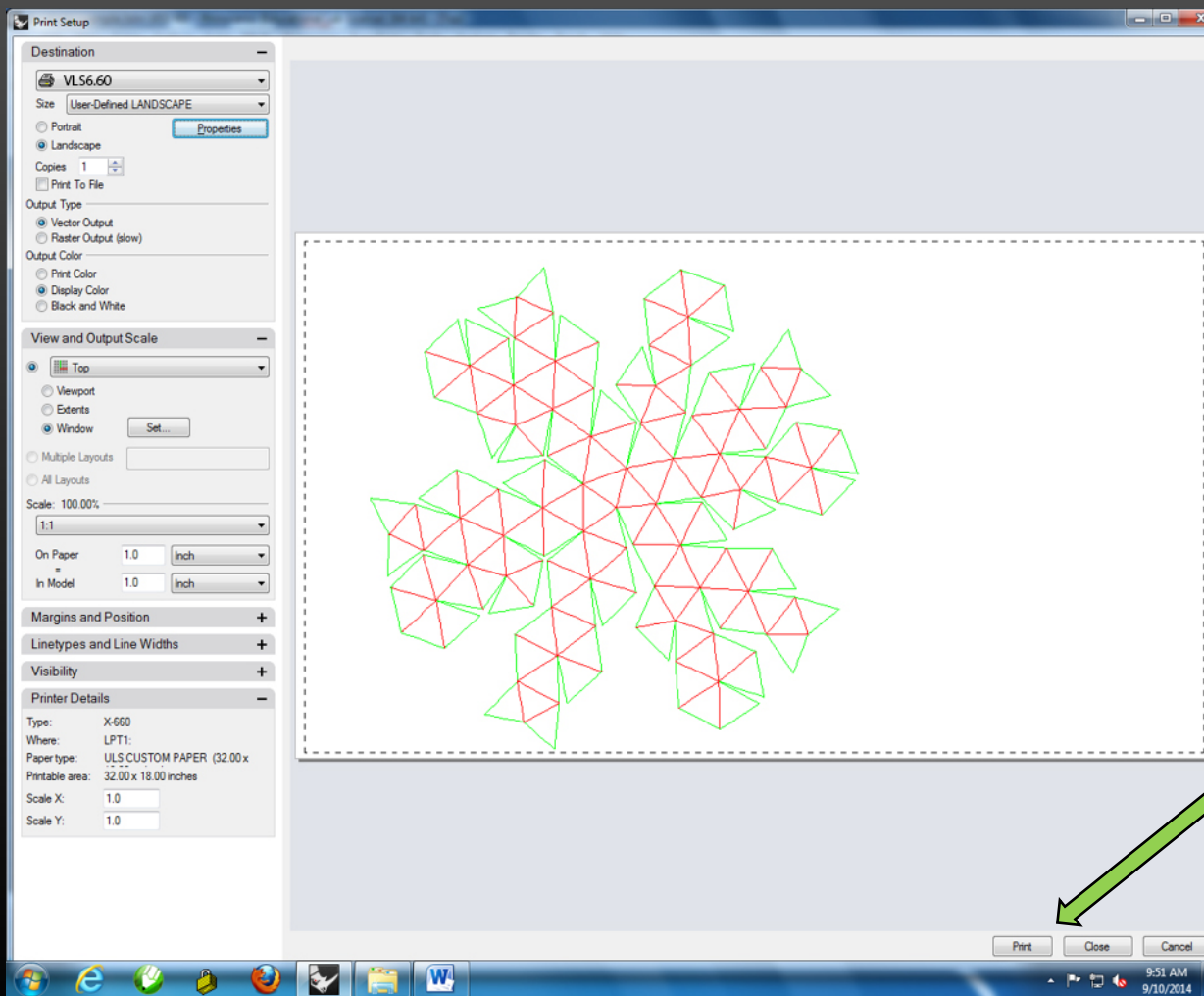


For this laser the bounding box should be 18" W x 32" L.

Never change scale to fit window.



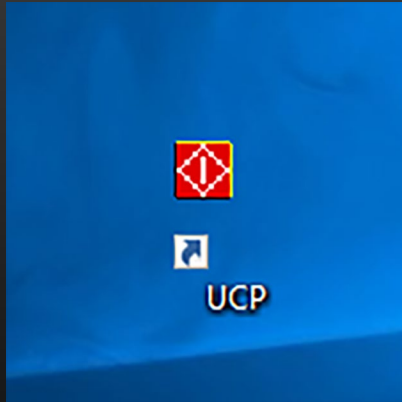
Click “No”



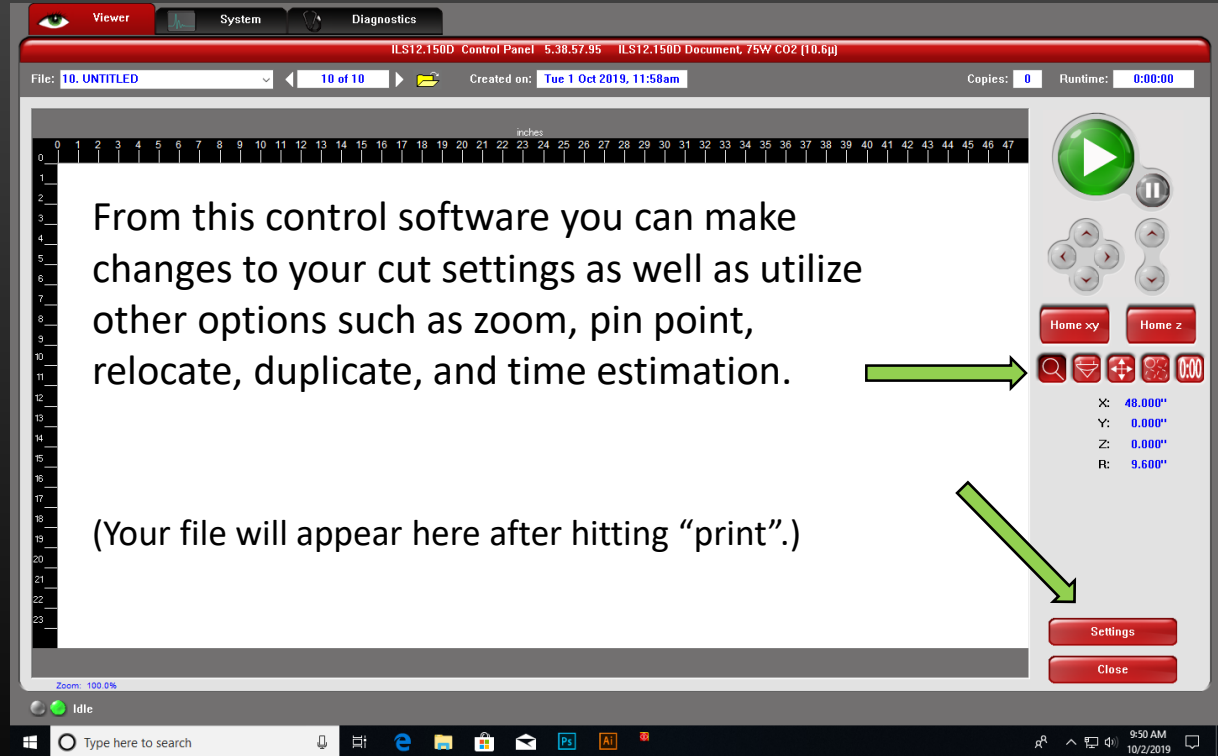
Your preview
should look right.

Click "Print" to send Laser.

Open the UPC application located on the desktop.

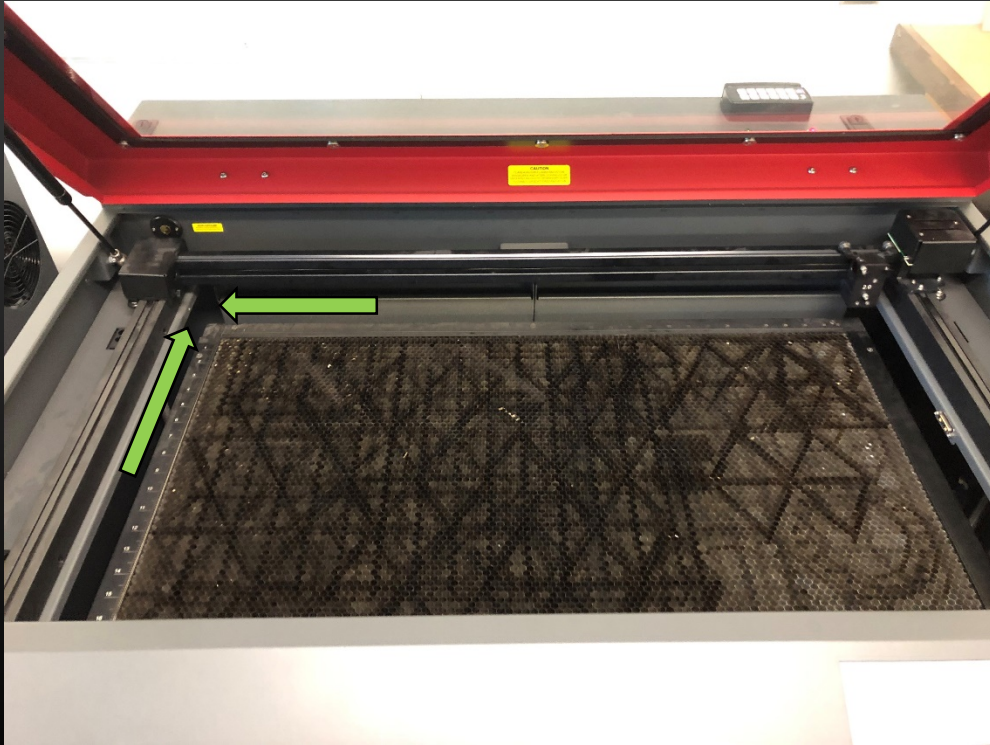


For more information, visit <https://www.ulsinc.com/> and click support for more detail about the laser cutting process



Open laser lid and place sheet onto honeycomb cutting bed.
This cutting bed is designed to float on engraving table.

Cutting bed should be pressed to the upper left corner.



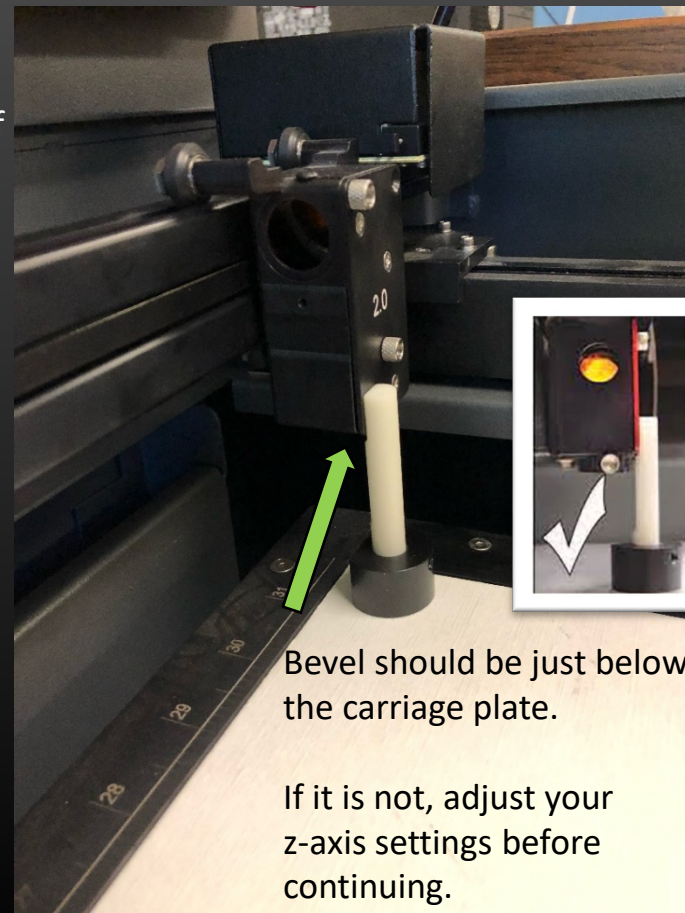
Remember to turn on the
exhaust, located to on the
right side of the laser.



To insure the accuracy of your settings, place the focus tool on top of your material after the z-axis has been adjusted.



Focus Tool is located in the inside on the left side.



Bevel should be just below the carriage plate.

If it is not, adjust your z-axis settings before continuing.

TIP:

The z-axis will not adjust using the UCP software until you hit play.

In order to check the z-axis focus using the focus tool, leave the lid open and hit play to allow the machine to move the bed into place. This will also initiate a dry run where the laser is not cutting but following the cut paths. (Be sure that the path is clear.)

You can pause the laser after the bed adjusts to the settings you have entered. Now use the focus tool to check the accuracy.

Note: Only manual control on the key pad will move the z-axis before a cut is initiated. You can use the key pad to determine your z-axis height, but if you do, you must turn off the z-axis within the UCP to avoid an override of this manual adjustment.

It's very important that the lens is focused or you will not get a good cut or engraving.



YOUR MATERIAL SHOULD ALSO BE FLAT!

Warped material will change the focus of laser lens causing problems or even **FIRE!**

FIRE IS BAD!



IN CASE OF FIRE:

There is an ABC Dry chemical extinguisher on the west wall within the DML, next to the storage closet.

Alert OU Fire Department (911) in the event of a fire. Promptly report the event to COA staff at GCA-Lab-GA@OU.edu.

Close the lid &
Swipe your soonercard.



Press **PLAY** in the UCP window.



Now you are laser cutting!



Laser Cost:

1 Swipe = \$1.00 = :04 minutes

\$.25 a minute after

- This means you will be charged a minimum of \$1.00 every time you swipe your card to turn the laser on. Then after :04 minutes, you will be charged \$.25 a minute. (\$7.50 = :30)(\$15 a hour)
- If you need to laser cut more than once, don't swipe out, just start new laser file.
- Remember to swipe out when you are finished laser cutting or you will be charged.

Please throw your trash in the trash hopper!



For technical support or to report problems with the equipment within this lab,
please contact the following support staff:

GCA-Lab-GA@OU.edu

Garrett.R.Stowe@OU.edu

Jerry.Puckett@OU.edu

We appreciate you letting us know when there are issues concerning this space and the tools.
Help us keep things running by promptly reporting breakage and misconduct within the lab.

Thank You.