

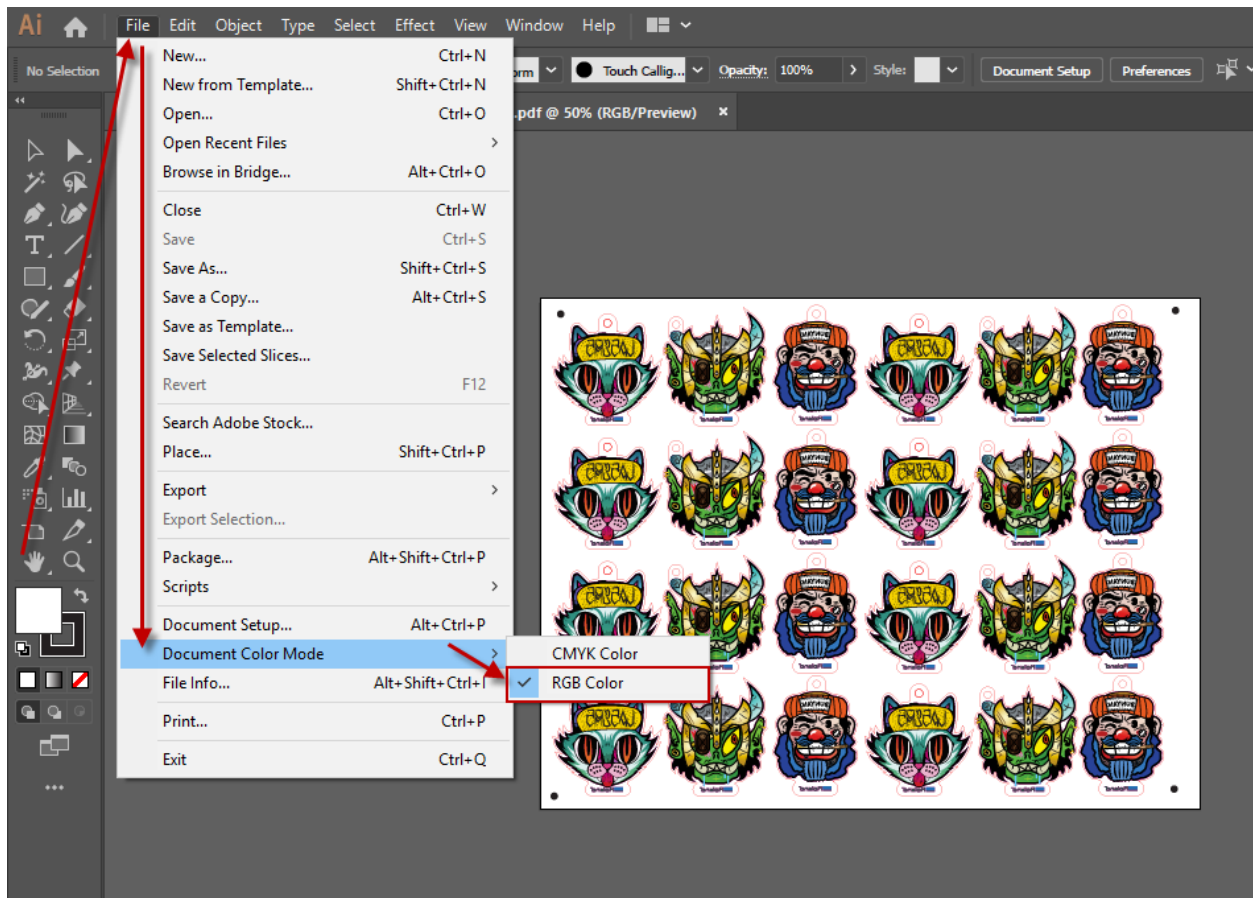
Print Cut – Key Chains workflow

This workflow will teach you how to set up your file in Adobe Illustrator for printing on a Roland LEF2-300 and cutting on the LV-290 laser engraver.

Setting up a document in Illustrator

Setting up the document color mode is important to get accurate color and cutting precision from the Roland VersaWorks RIP and SmartCONTROL software.

1. Open a file in Illustrator.
2. Select - File > Document Color Mode > RGB Color

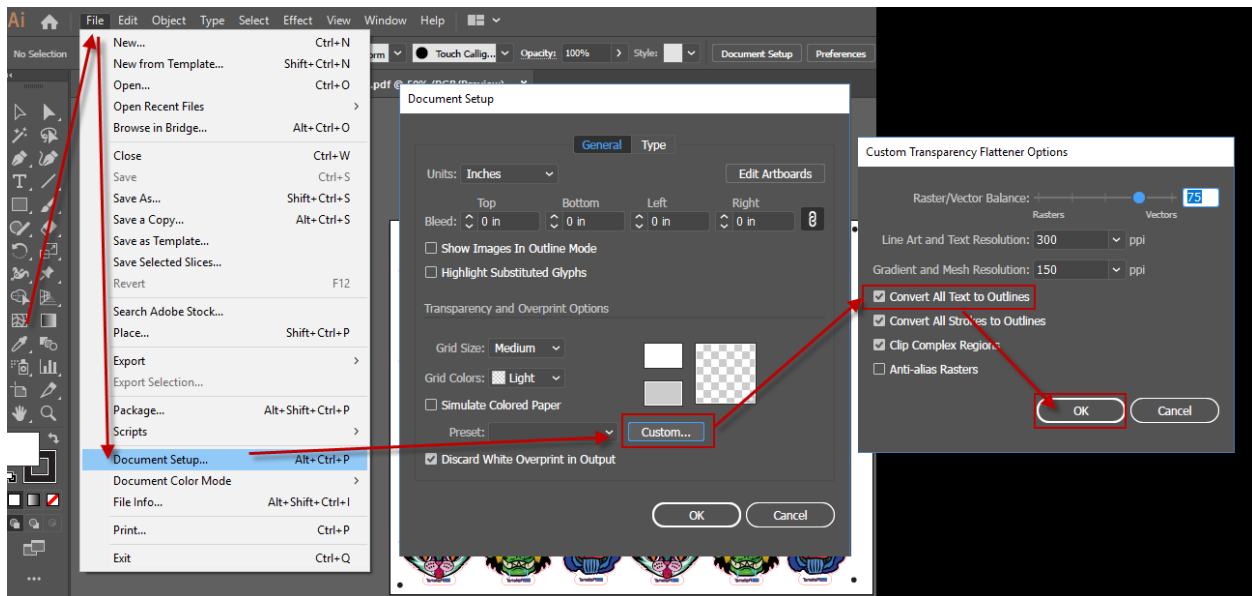


Imagine.

Converting Text to Outlines

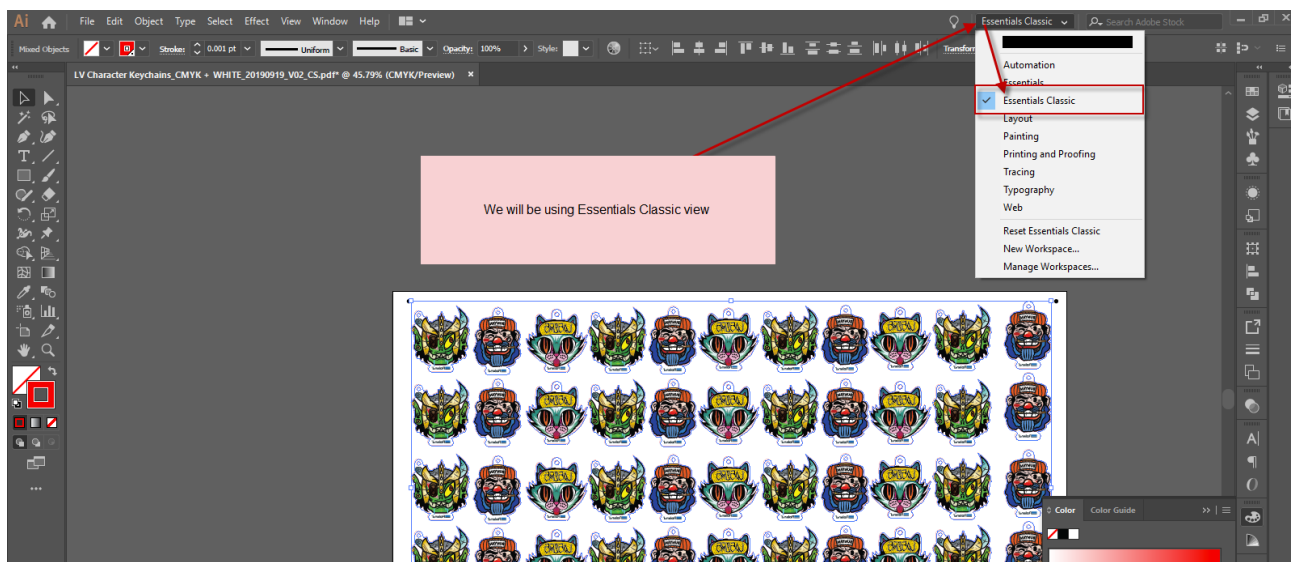
It is necessary to convert text to outlines for the LV to properly handle the text in the file.

In the File menu, select > Document Setup > Custom > then select “Convert All Text to Outlines” (see image below).
Click Ok



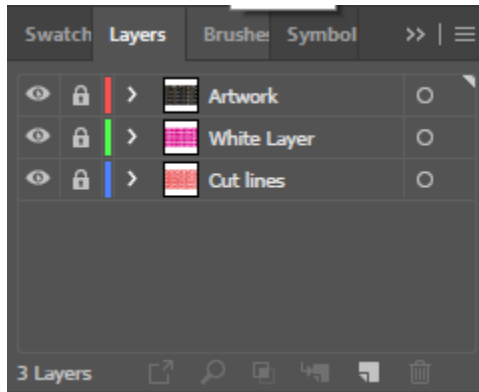
Change to Essential Classic View in Adobe3

1. At the top right, Click on the drop-down (image below)
2. Select Essentials Classic



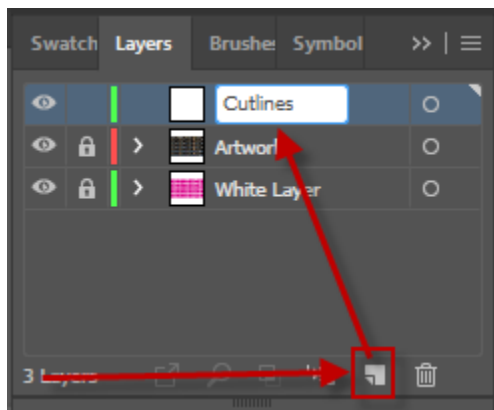
Imagine.

Creating a Separate Cut Lines Layer



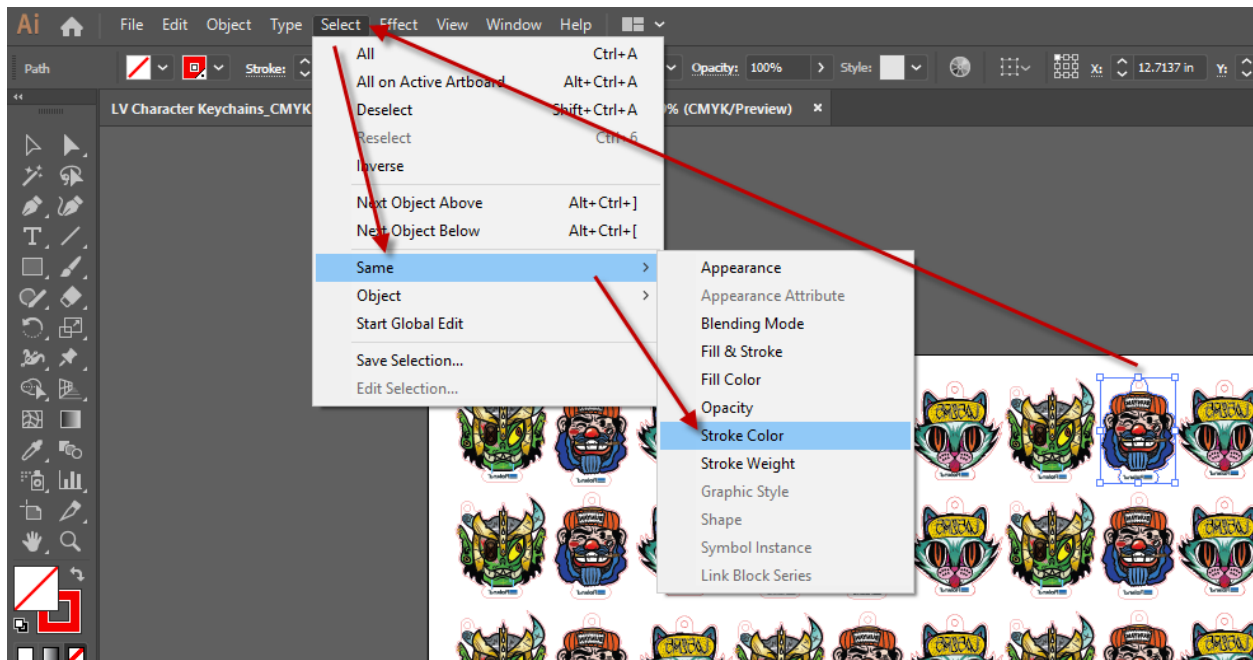
Cut lines need to be separated from other items in the file in order to isolate them for the LV. To do this, create a new layer.

1. In the Layers window, click on the new layers button as indicated below.
2. Rename the Layer – “Cut Lines”.

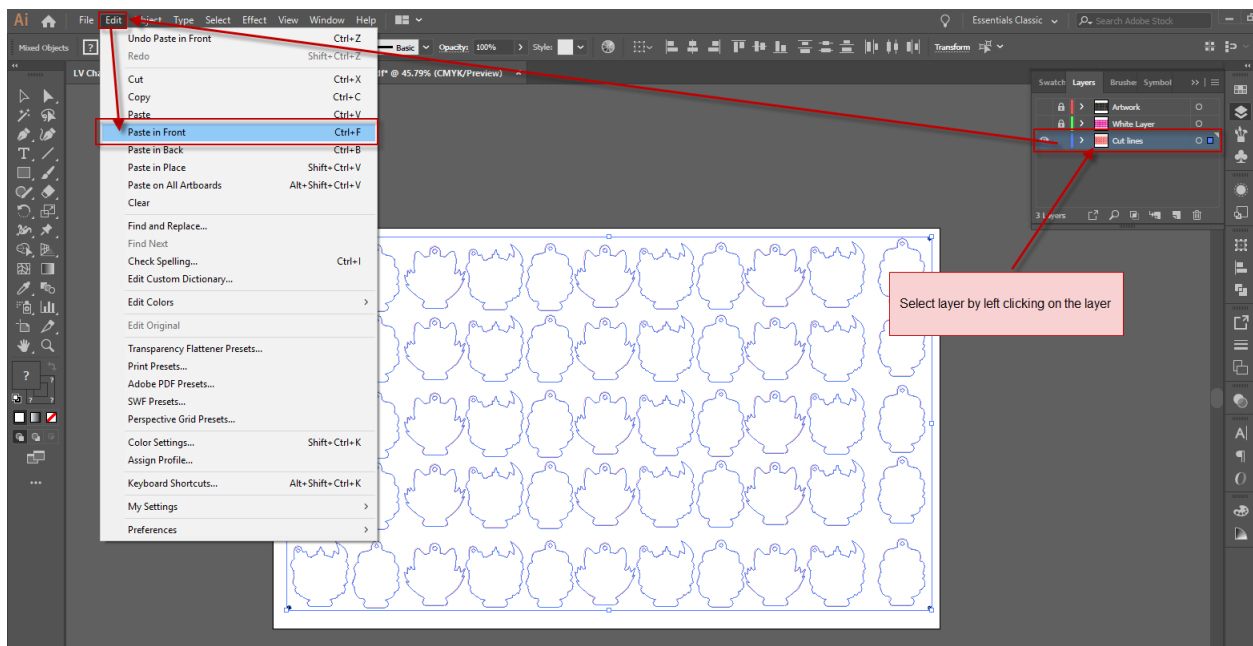


To select all your cut lines:

1. Click on one of the cut lines in the file.
2. Under the Select menu, choose: Same > Stroke Color (see below).



3. Under the Edit menu, select Cut.
4. Select the new layer in the Layers Window.
5. Select Edit > Paste in Front



Size and Location of Dots

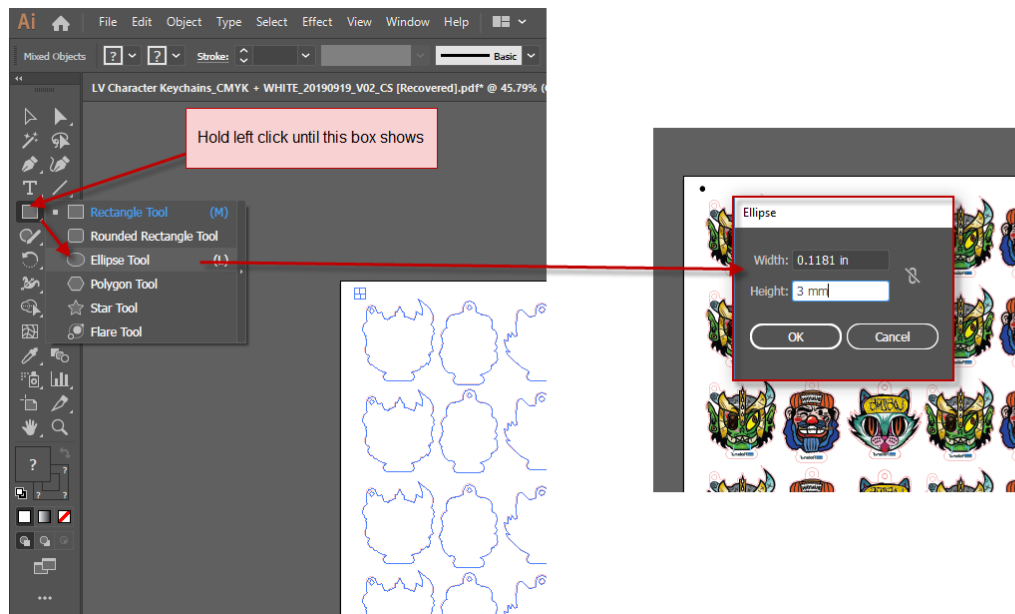
Place 3mm x 3mm dots, (.1181" x .1181"), at all four corners of your art board. The specific location of the marks is not important as long as they are located in all four corners. The marks should be on both the artwork and cut lines layers. The dots need to have an RGB value of "0,0,0" (black) with no stroke (outline).



Imagine.

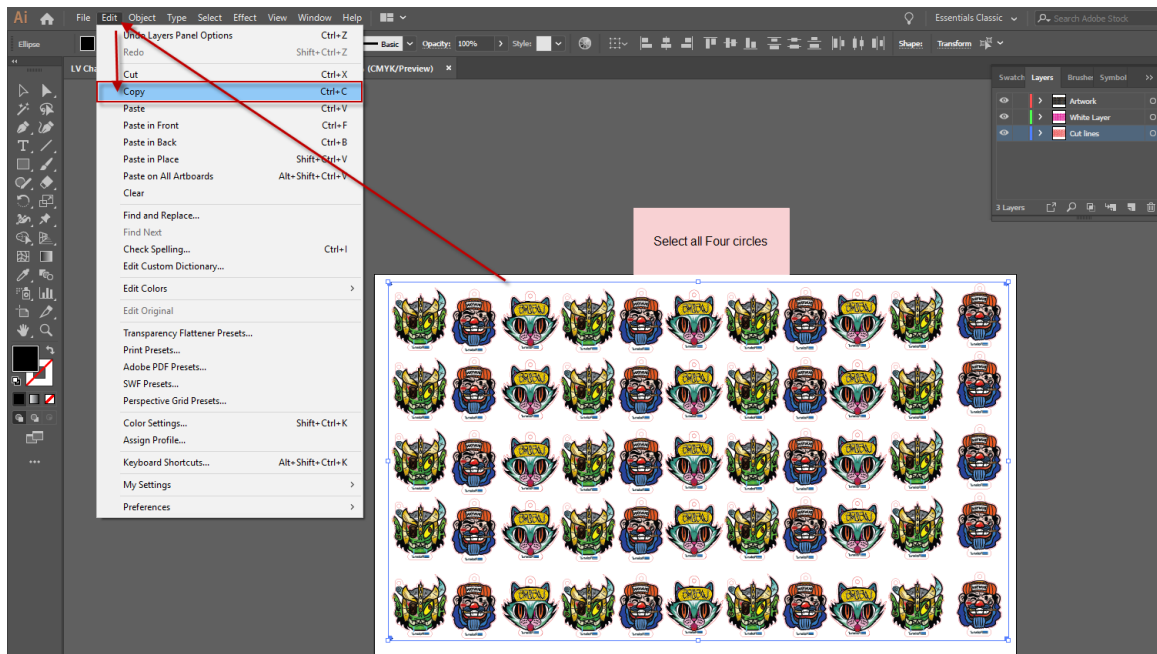
To create the circles:

1. Left click and hold on the rectangle icon in the tool bar which opens a slide icon that displays multiple choices for the tool.
2. Select the Ellipse Tool.
3. Click on the corners of your job and type 3 mm for both height and weight. **Note:** if your document settings are in inches, Illustrator will do the conversion for you. (Seen in Image Below)

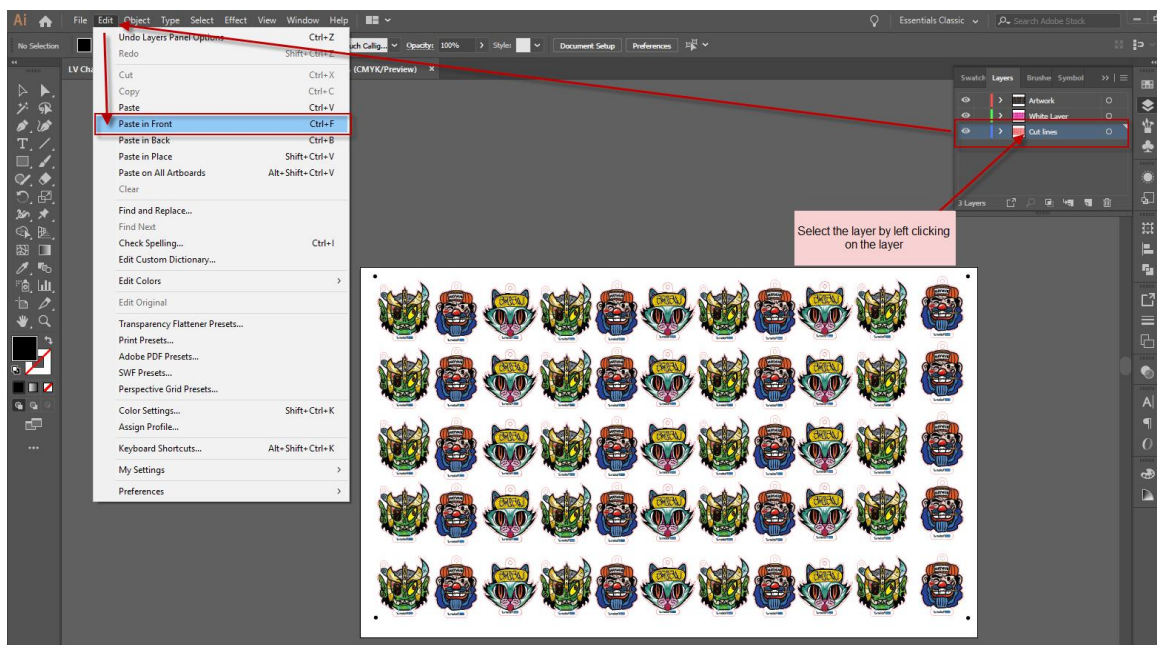


Place all four dots on the art board layer and the cut layer.

1. Select all four circles you have placed and go to edit > copy.

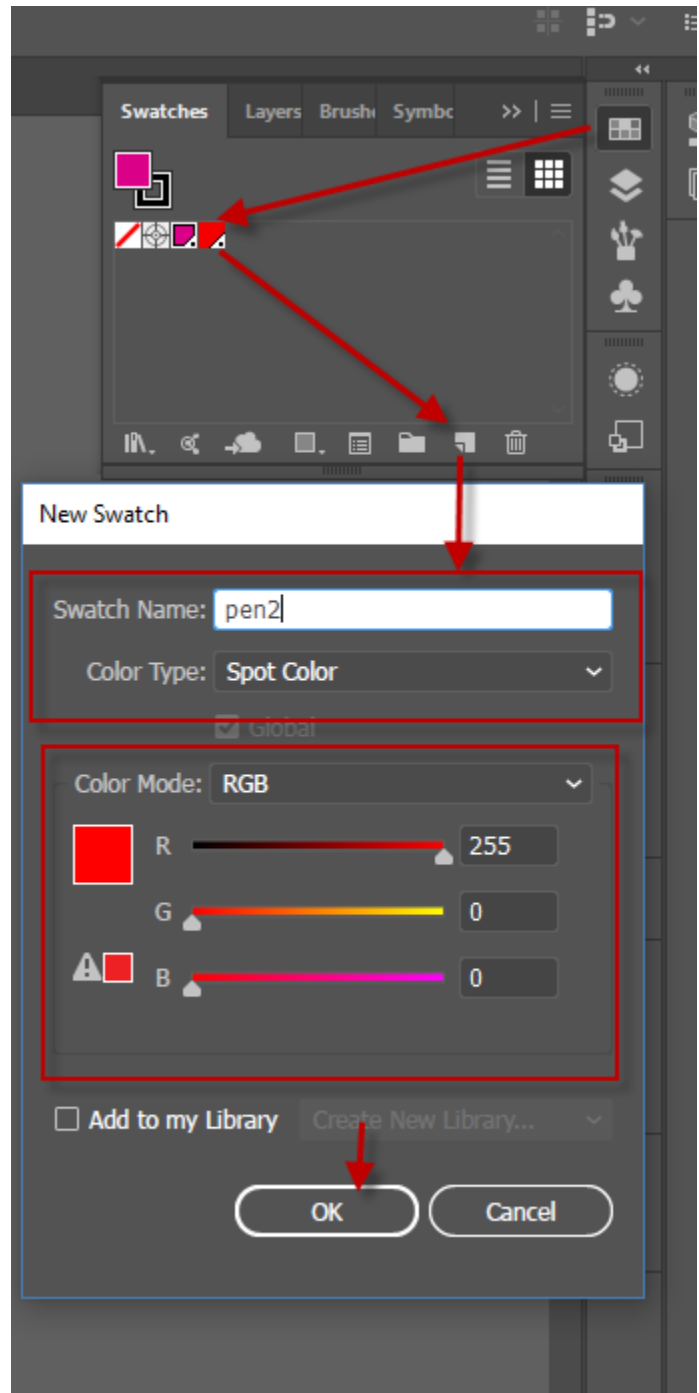


2. Select the layer you want to paste the marks to go on.
3. Edit > Paste in Front.



Creating Spot Color

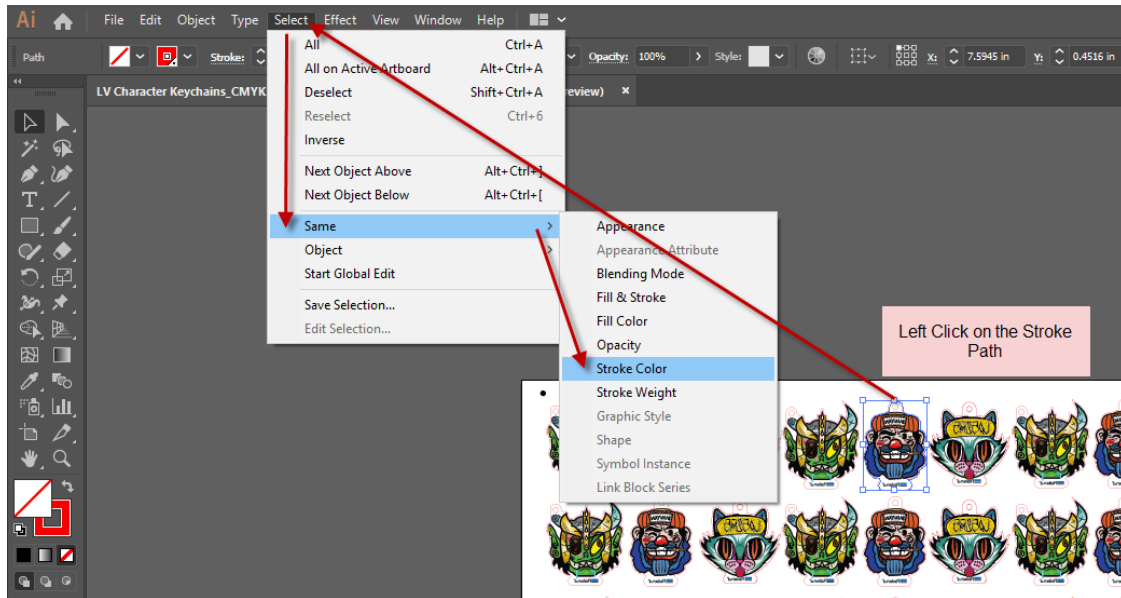
1. Click on the Swatch Tab
2. Create a new swatch option
3. Name swatch - pen2
 - a. This is case sensitive
4. Select Color Type as Spot Color
5. Change Color mode to RGB
6. Change Setting to
 - a. R = 255
 - b. G = 0
 - c. B = 0
7. Click Ok



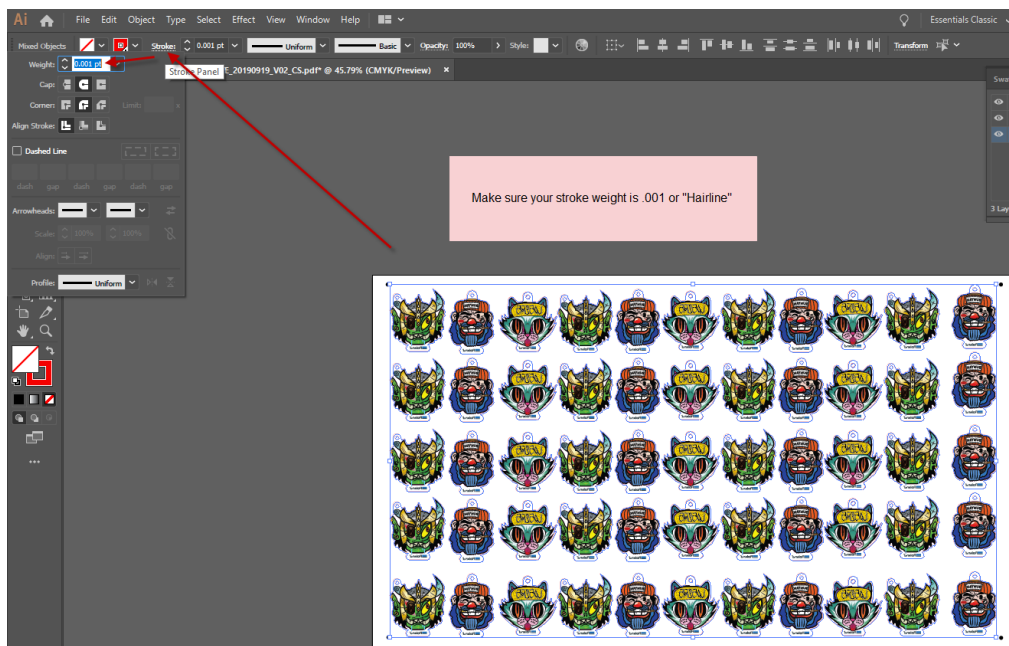
Imagine.

Changing Stroke to a Hairline Stroke and Assigning Spot Color to Stroke

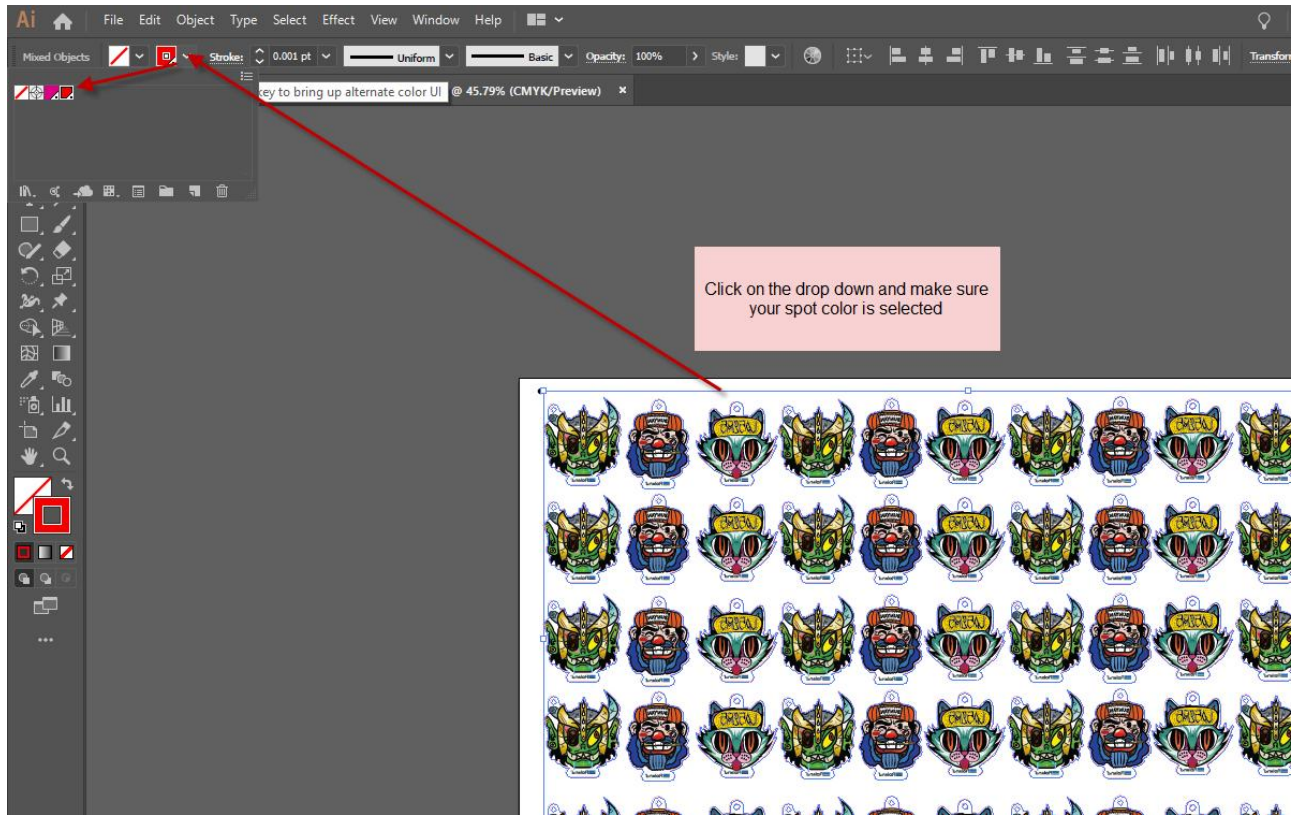
1. Click on the stroke path you designed
2. Select > Same > Stroke Color



3. Change the stroke weight to .001 aka as Hairline.
4. Click on Stroke
5. Type “.001” in the weight field
6. Press enter

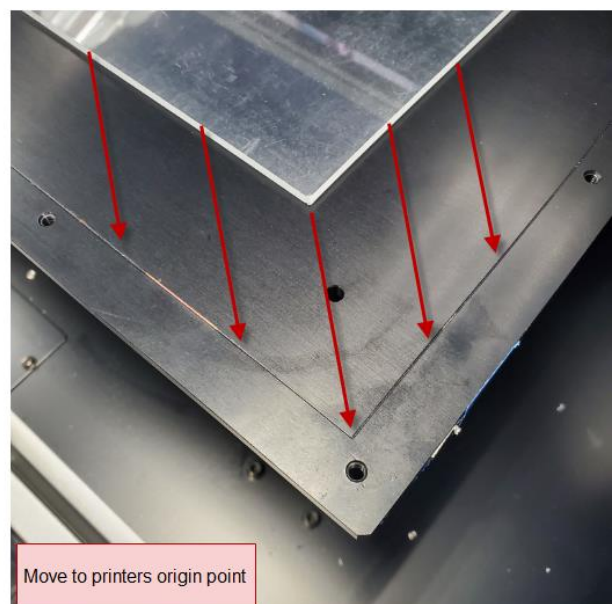


7. Click on stroke color drop down
8. Select the spot color you created pen2



Loading the media into the printer

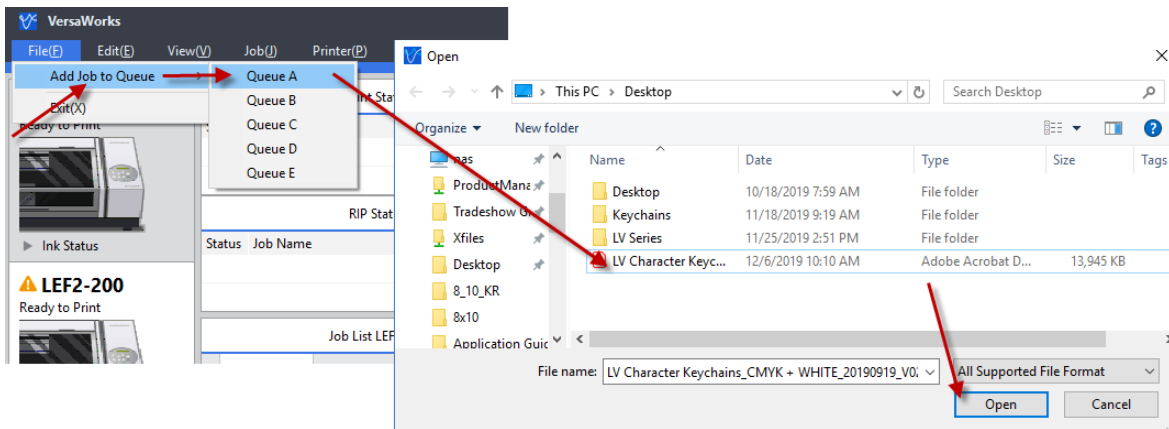
Peel off any protective film on the media if applicable and place on the corner of the origin point of the printer. See the LEF User Manual for determining origin point.



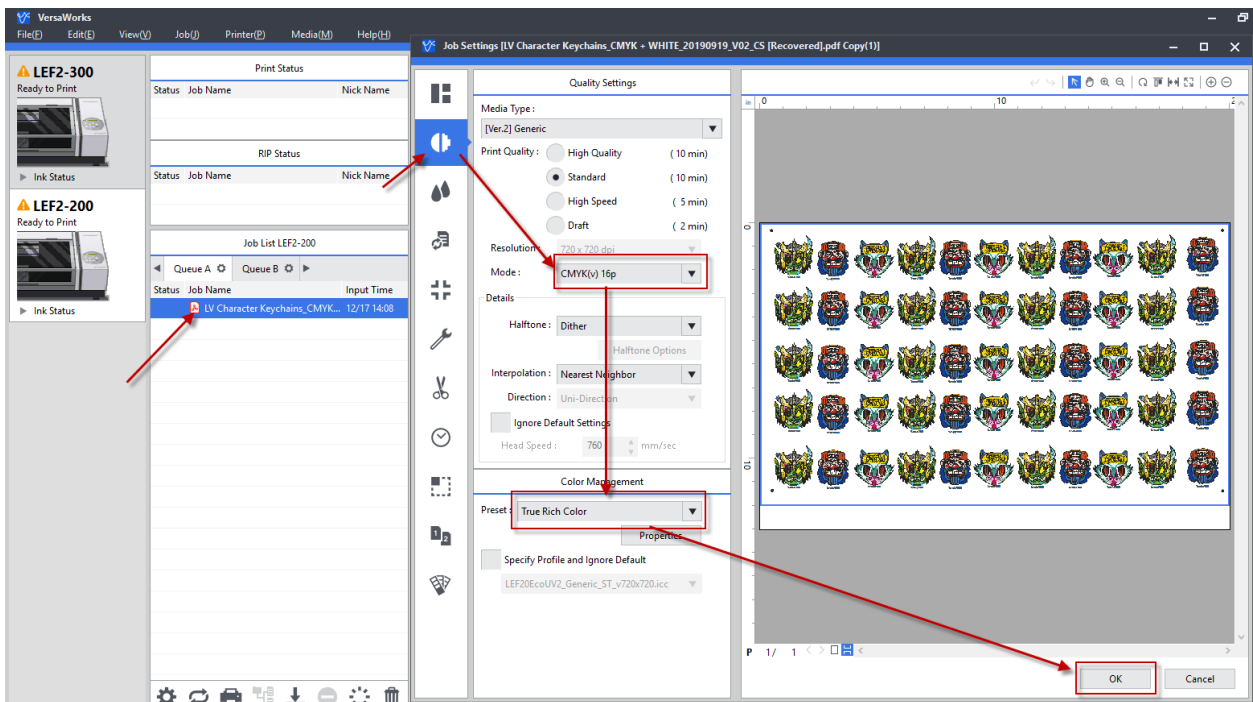
Loading PDF in VersaWorks

The process described below will demonstrate how to use the LEF printer and VersaWorks for performing a multiple layer print which would be used on a clear media like acrylic for viewing on both sides of the media (First and Second Surface viewing). This process can also be adapted for standard single sided printing.

1. Launch VersaWorks
2. Select File > Add Job to Queue
 - a. For this workflow we will be selecting Queue A.



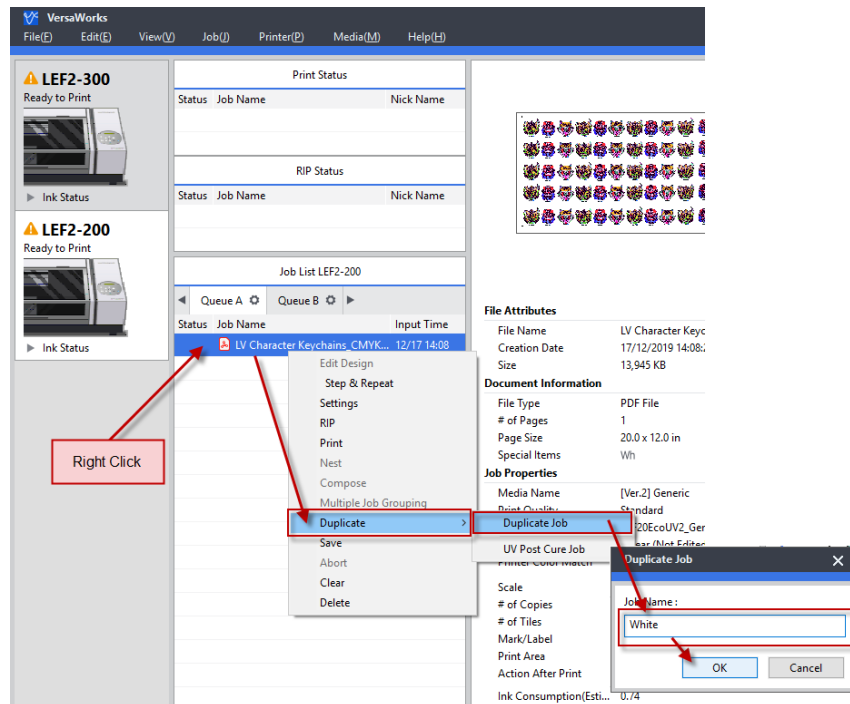
3. Double click on the job to launch the Job Settings dialog.
4. Select the Quality Settings and press Ok



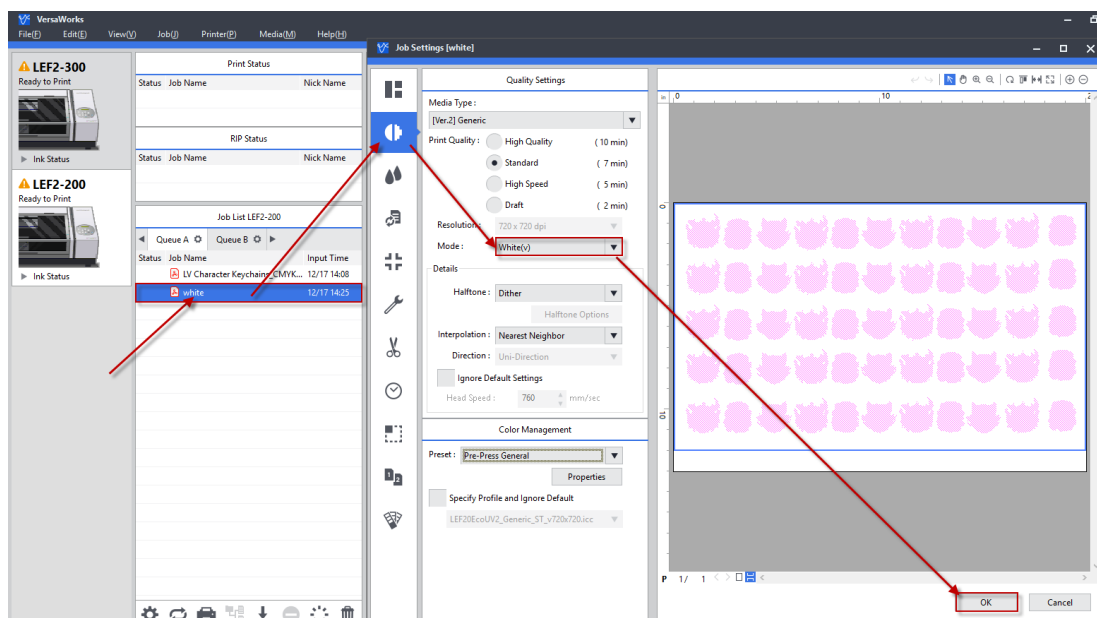
Imagine.

Duplicating a job to print white.

1. Right click on the job and select duplicate > duplicate job.
2. Change Name to have "White" in the name.

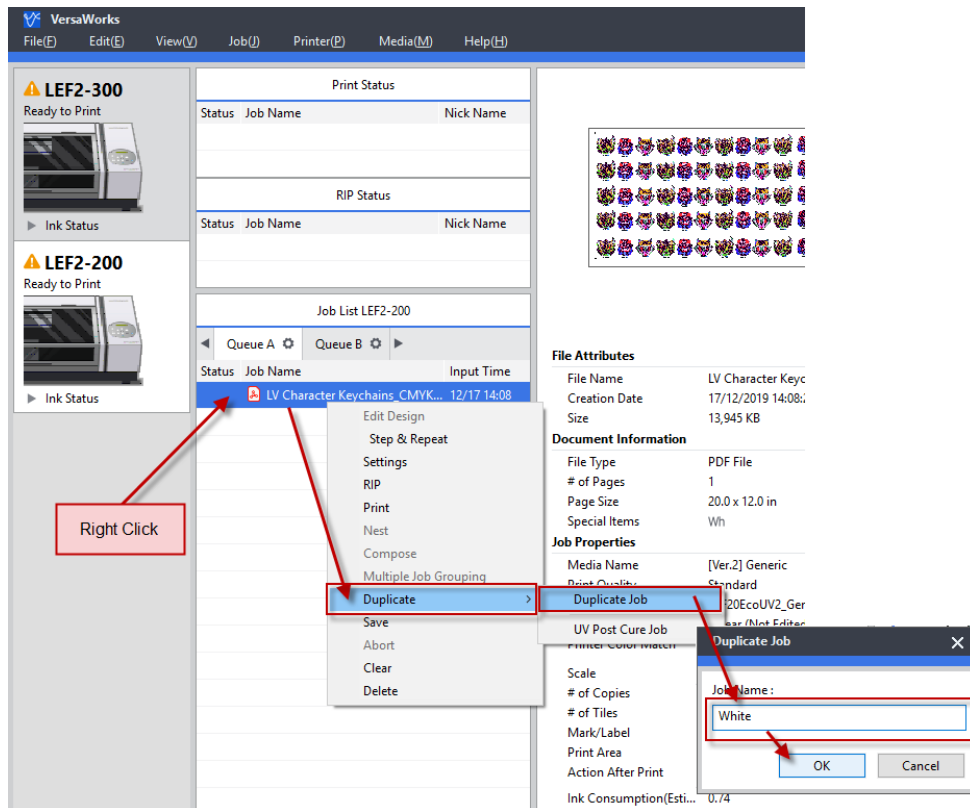


3. Double click on the job and click on the Quality settings tab.
4. Change Print mode to White and click ok.



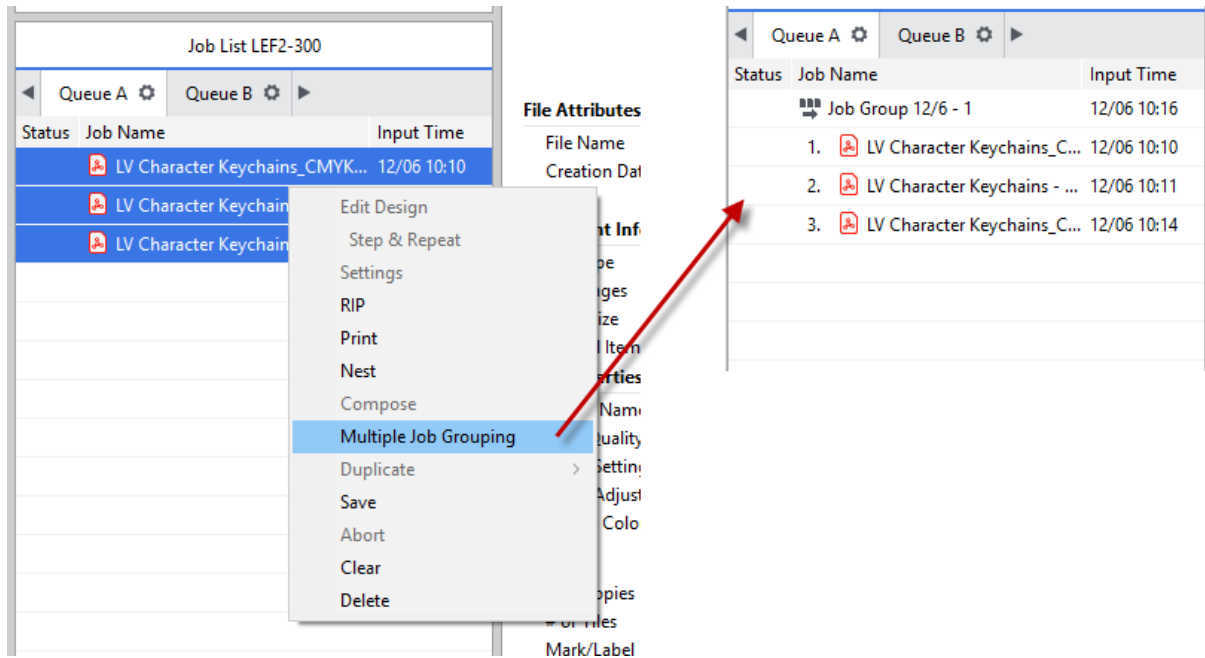
Imagine.

5. Duplicate Original job again. This is done in order to print CMYK both under and over the white layer.
6. Right click on the original job and select > duplicate > duplicate job and select Ok.



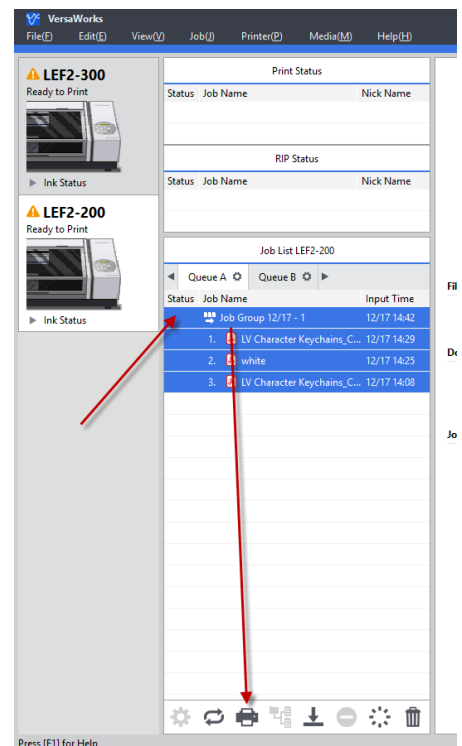
Group each of these jobs in to one larger job.

1. Press and hold down the CTRL key on the keyboard and left click to select each job in order they will be printed.
2. Right Click on highlighted jobs.
3. Select "multiple job grouping"



Now the job is ready to be printed or saved for archiving purposes.

4. Click on the Job Group and press the print button.



Imagine.

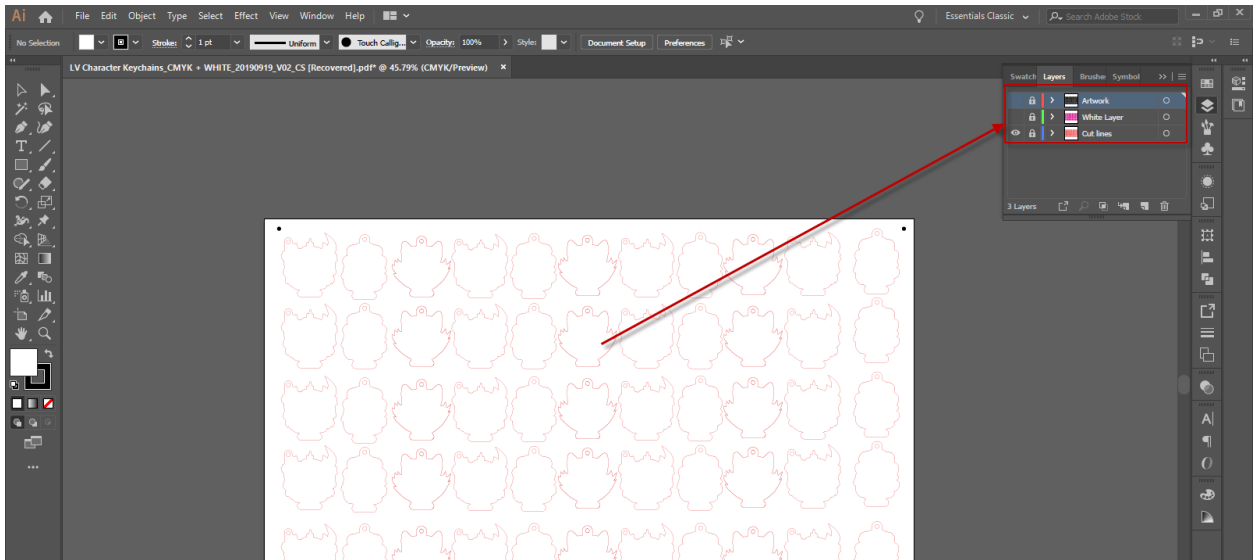
Image of completed print job



Imagine.

Generating a file for output to the laser

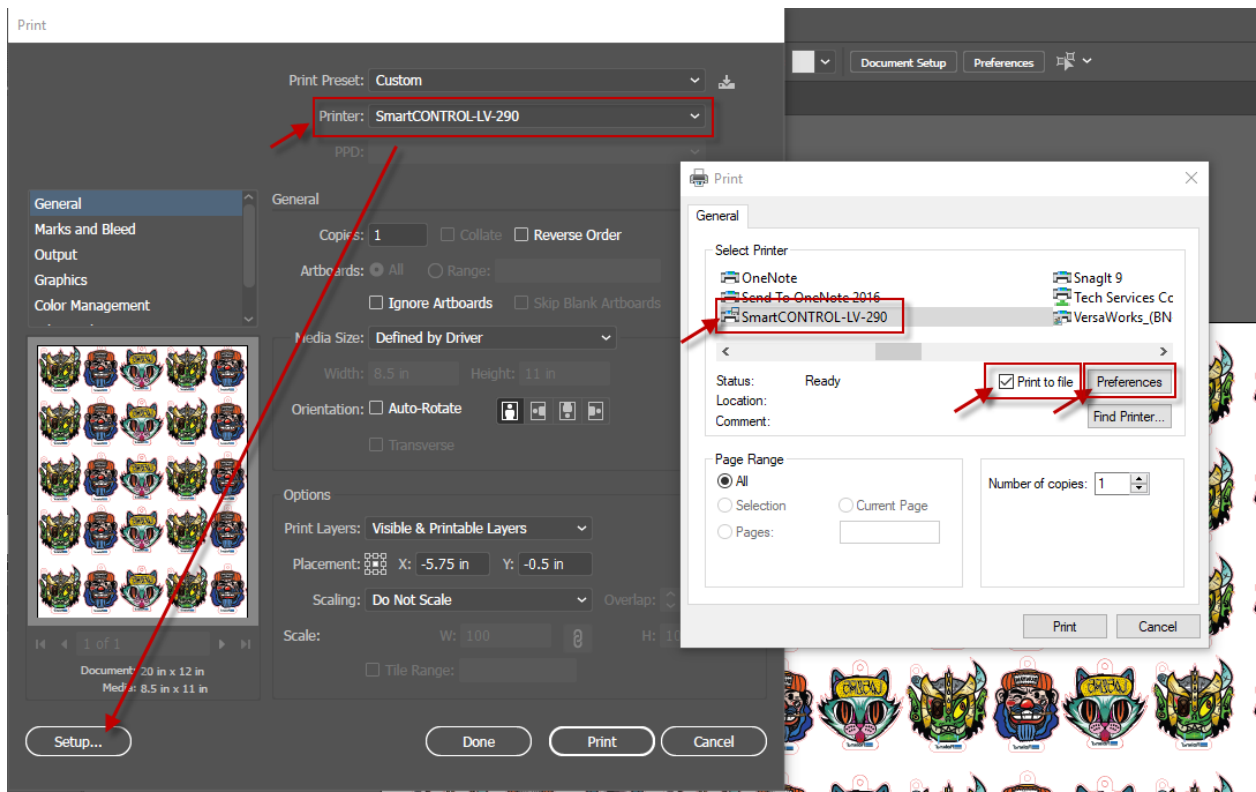
1. Go back to the Adobe Illustrator file.
2. Under the layers tab, turn off all layers except the cut lines layer.
 - a. You can do this by clicking the eye marker in the layer you want to toggle on or off.



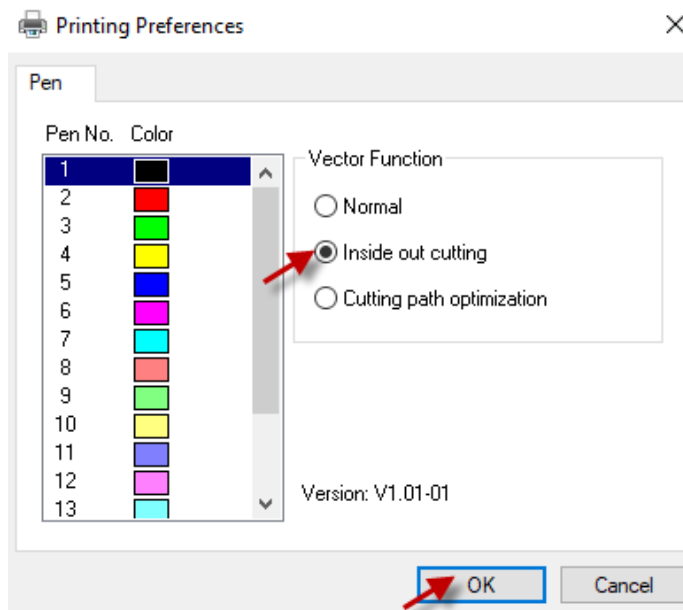
Note: The software is expecting vector data that is a hairline stroke. If there are any objects that are not vector data this could cause an error in your cut. The only non-vector areas should be your 3 mm circles on the corners of your job.

3. Go to File > Print
4. Select SmartControl-LV-290
5. Select Setup
6. Make sure that SmartControl-LV-290 is selected
7. Make sure that the "Print to file" is checked

8. Select Preferences

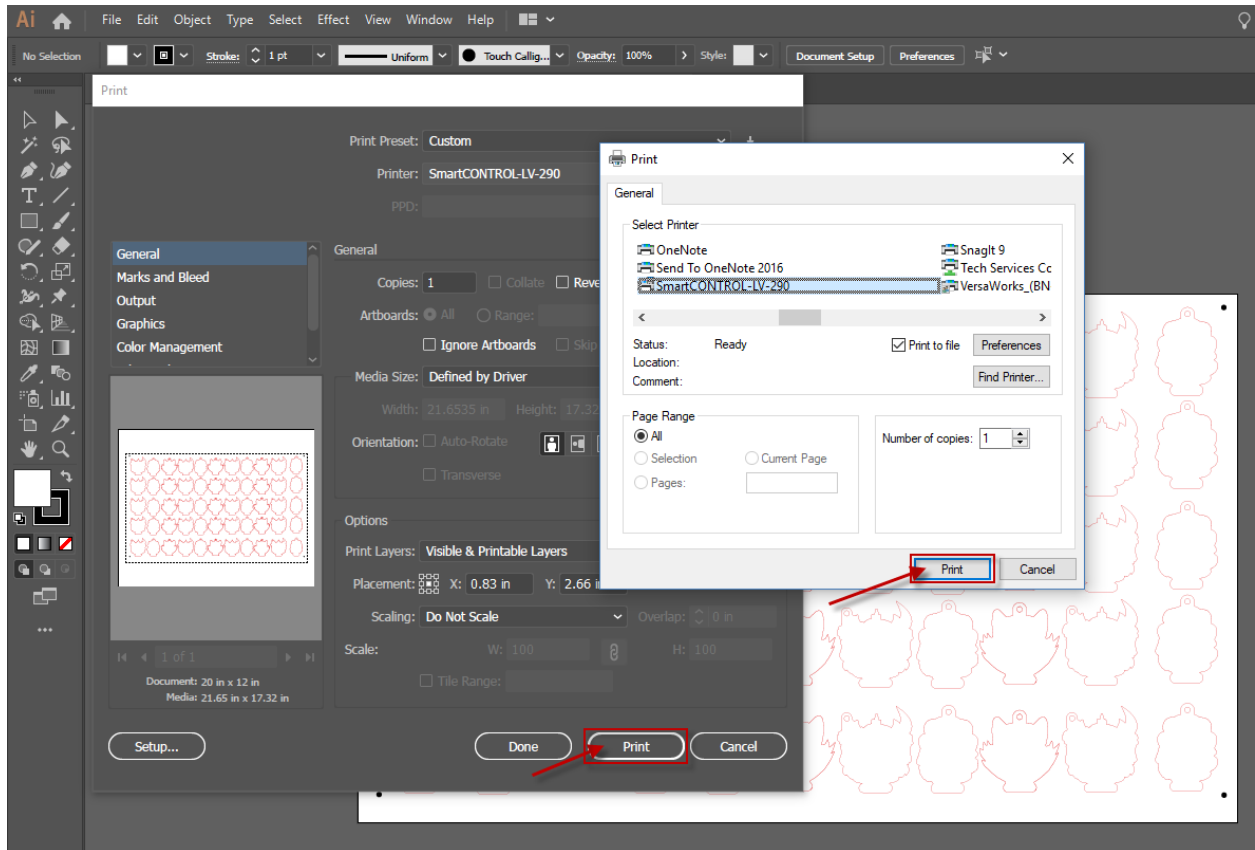


9. Select Inside Out Cutting

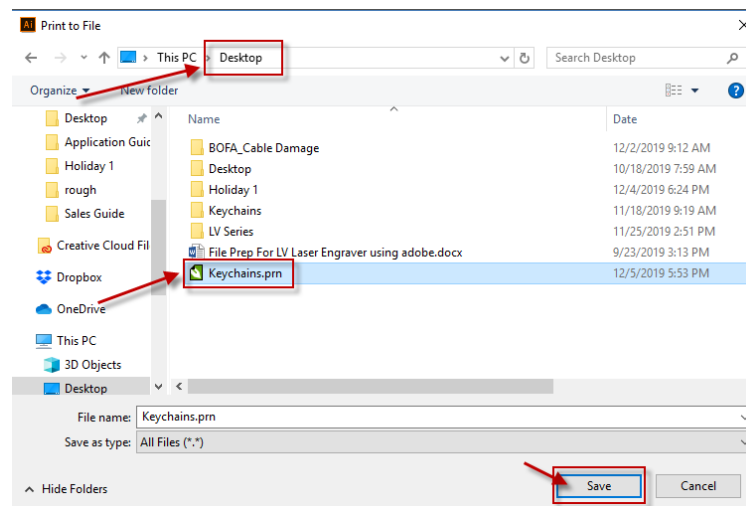


Imagine.

10. Press Ok
11. Press Print (in the print driver)
12. Press Print (in adobe illustrator)



13. Find the directory which you want to save the PRN file
14. Click Save



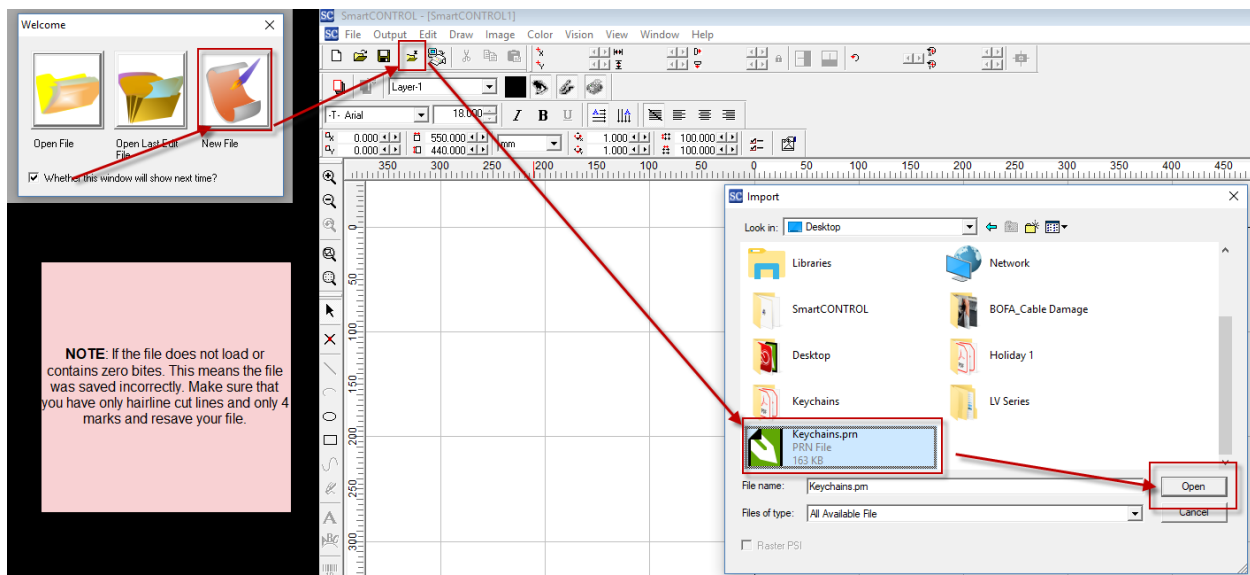
Imagine.

Output to Laser

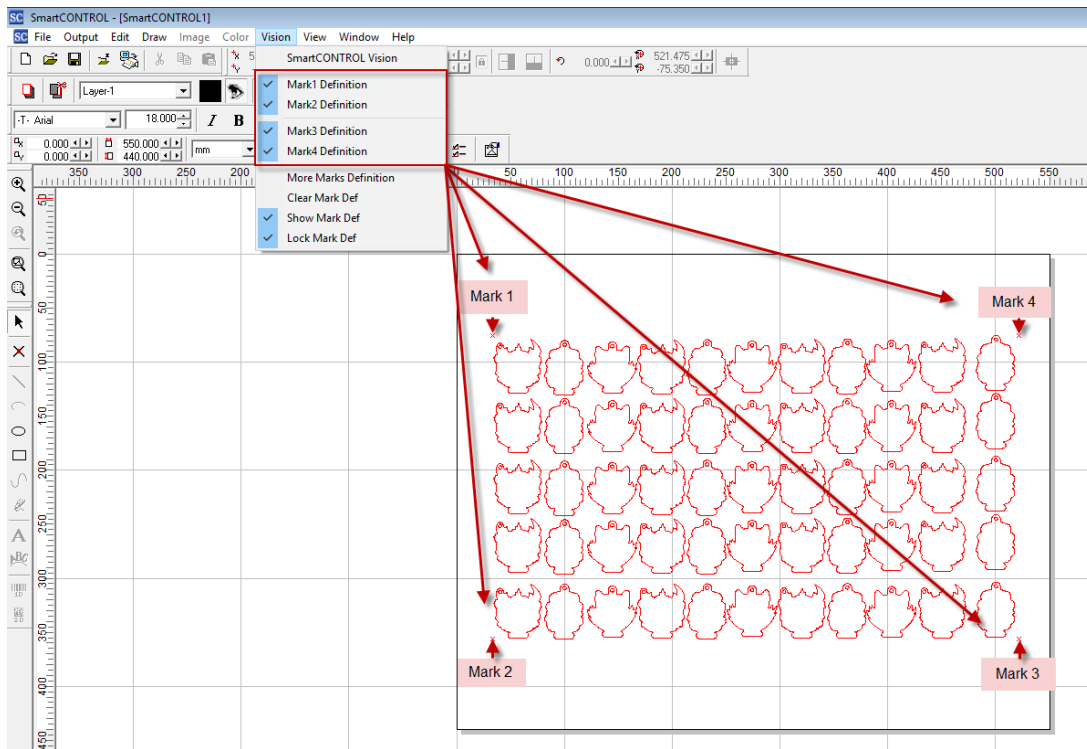
1. Launch SmartCONTROL software by double click the software from your desktop.



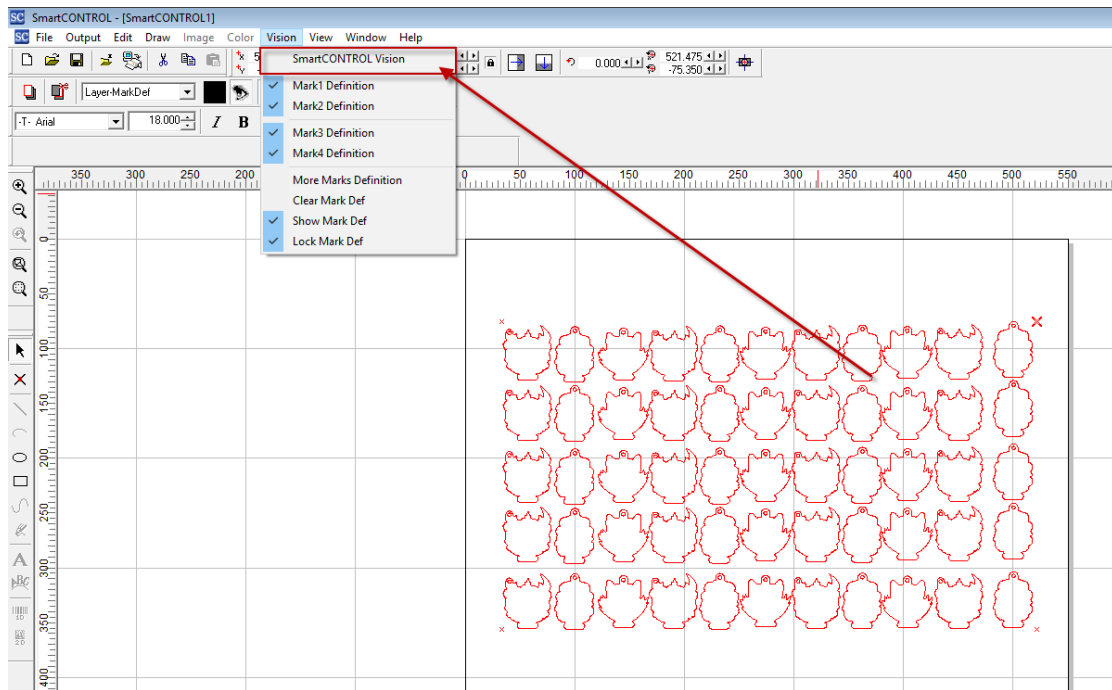
2. Select New File
3. Import the PRN file.



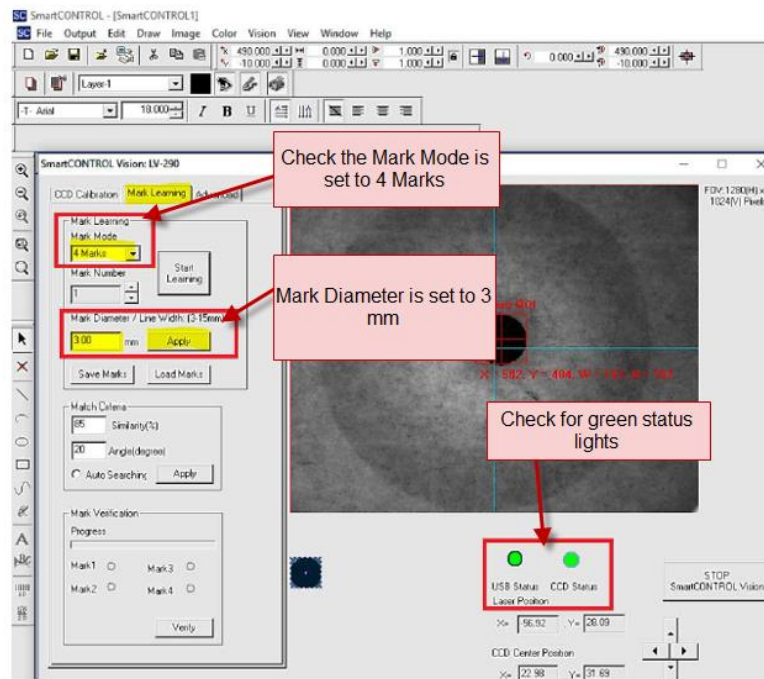
4. Verify that all marks are defined



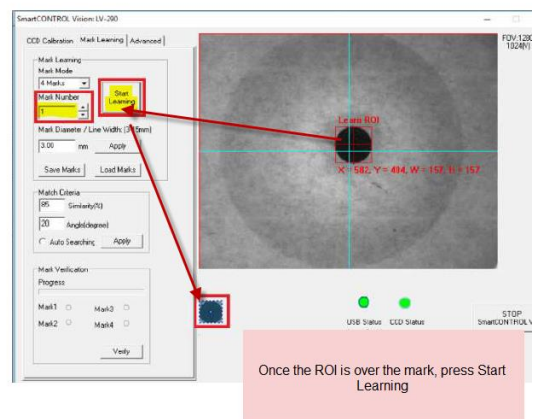
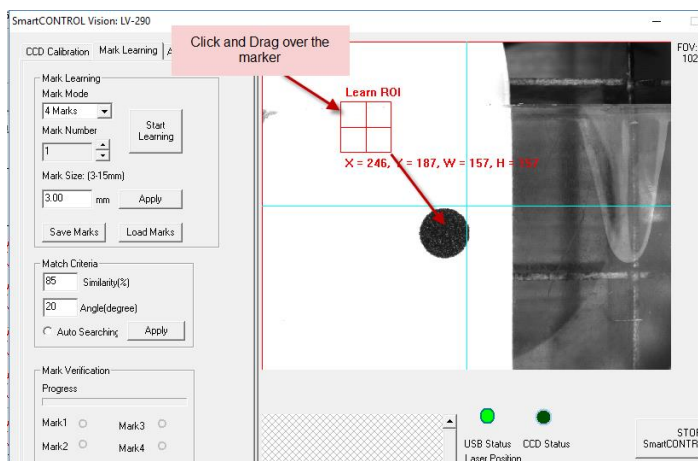
5. Select Vision > SmartCONTROL Vision



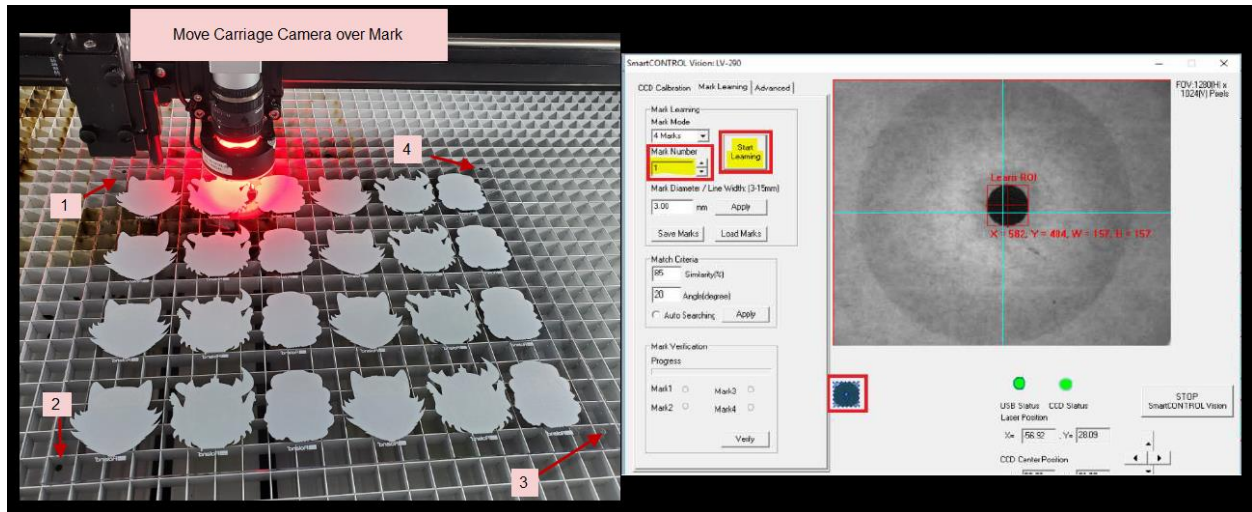
6. Verify USB and CCD Status are both green.
7. Change Mark Mode is set to 4 Marks
8. Change Mark Diameter is set to 3 mm.



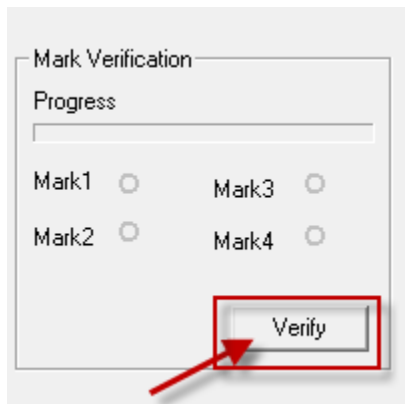
9. Move Camera over the first marker and click start learning.
 - a. This can be done by moving the laser carriage by your hand or by the arrow keys on the control panel.
10. Move ROI box over the Marker.
 - a. You do this by clicking on the ROI box and dragging it over the circle. (image below)



11. There will be a snapshot be taken of this marker
12. Repeat these steps for the other three markers.

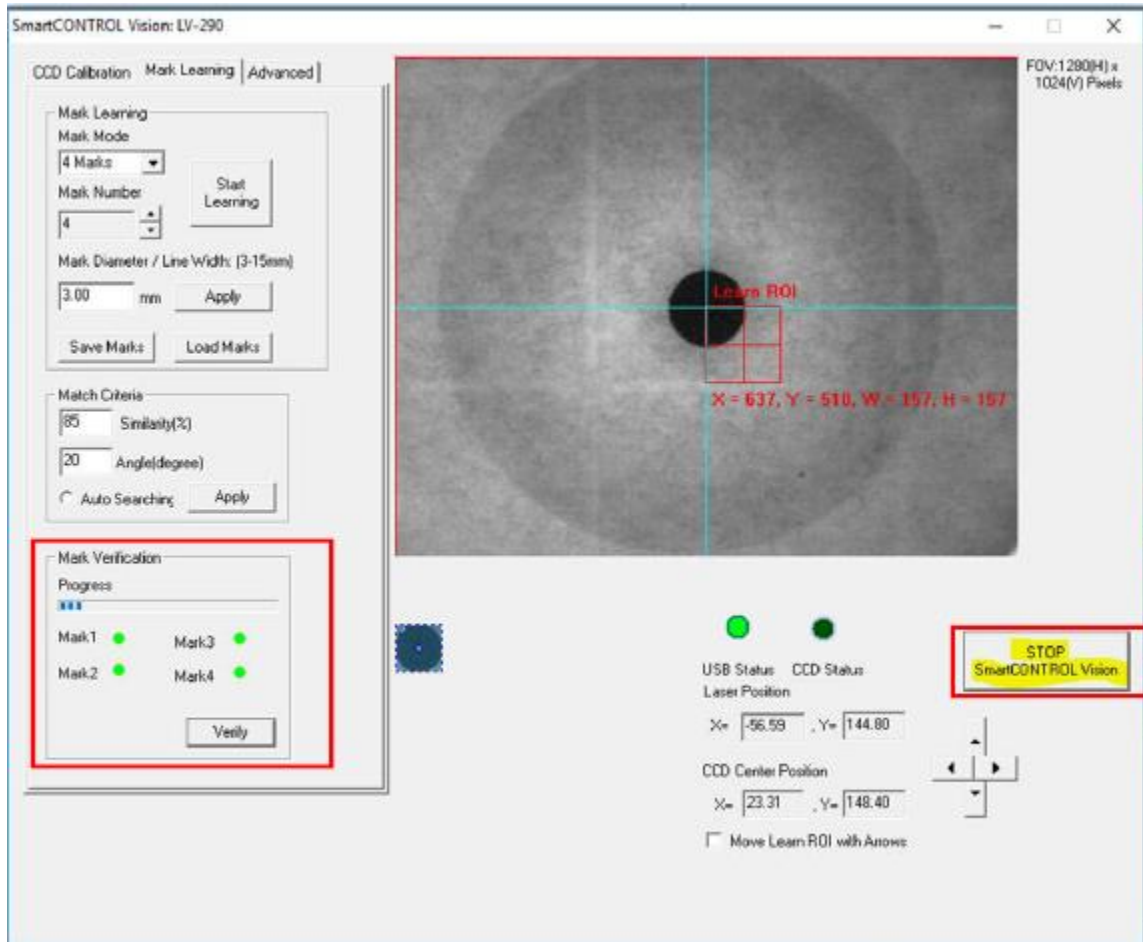


13. Select Verify



Note: At this point, laser carriage will go over each mark and verify the positions. The icons will turn green when the mark has been verified.

14. Once all four crop marks are green select Stop SmartCONTROL Vision.



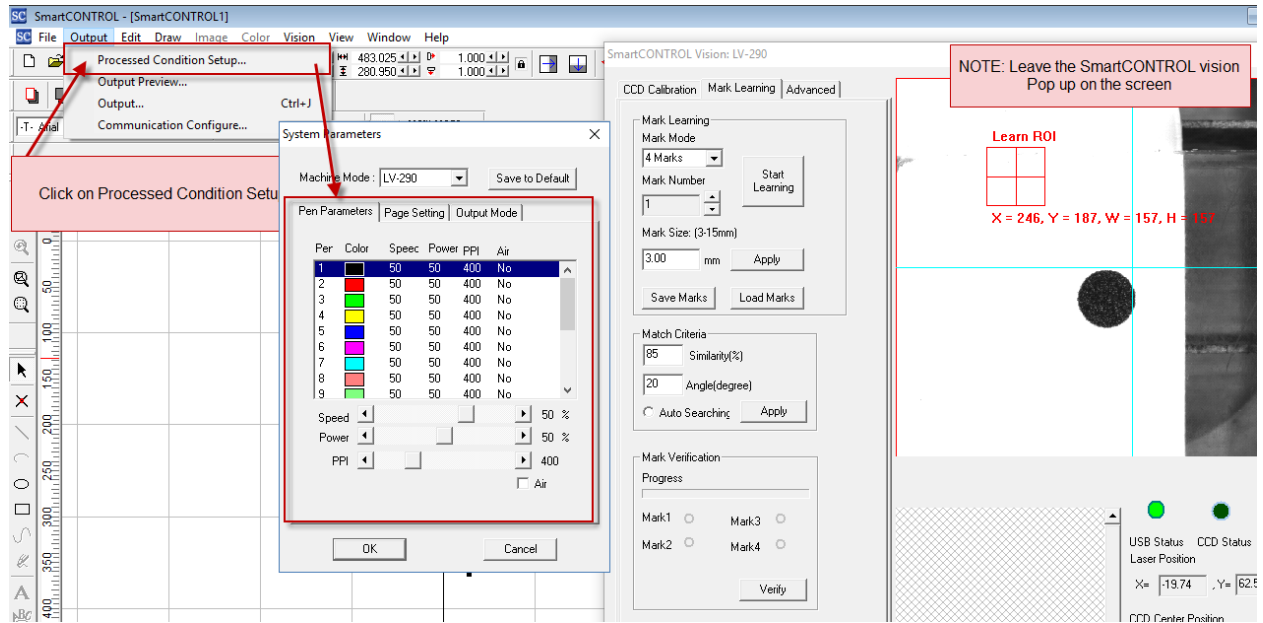
Imagine.

Important: You will need to leave this window open. Depending on your computer's resolution, you may need to drag this box off to the side or minimize the box. Please do not close this popup. If you accidentally do, please go back to the beginning this step.

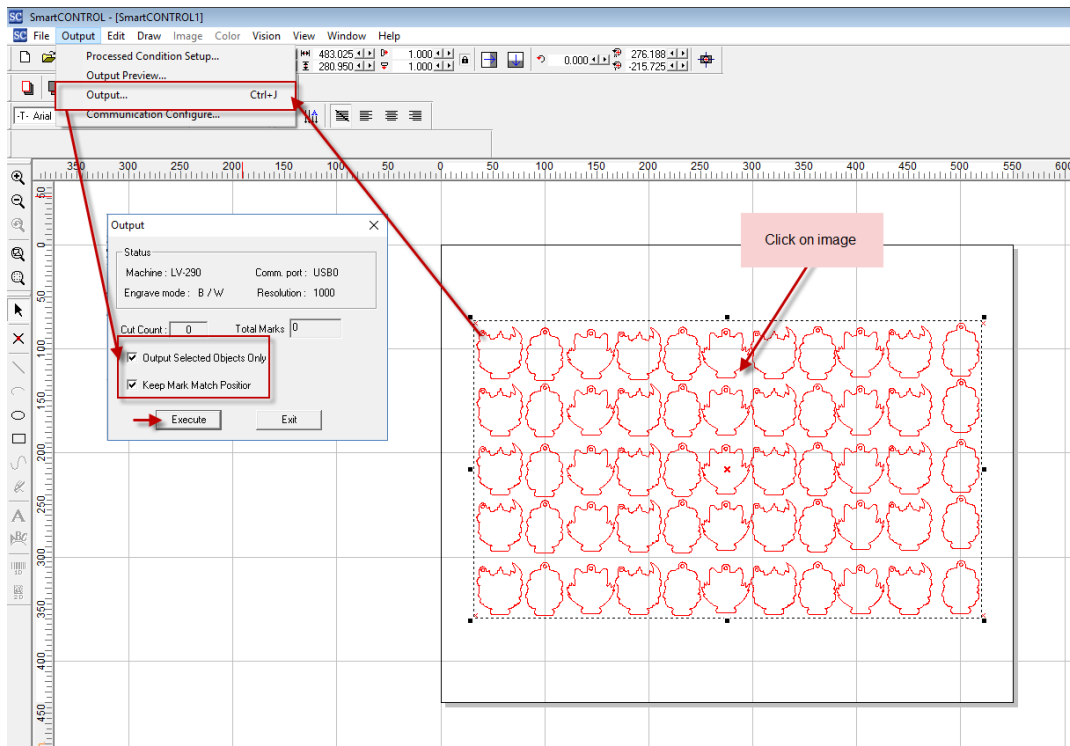
15. Select Output >Processed Condition Setup...

16. Change the Pen 2 setting to 2.0 and power to 100%,

17. Click OK



18. Click on the Image
19. Click on output > output
20. Select both check boxes
21. Press Execute



The carriage will locate all four marks and then begin cutting.