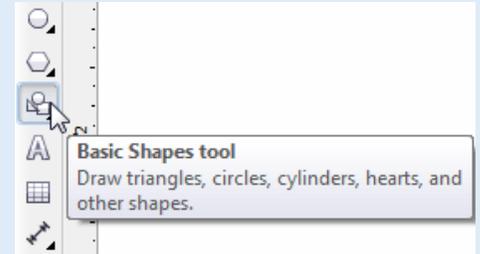
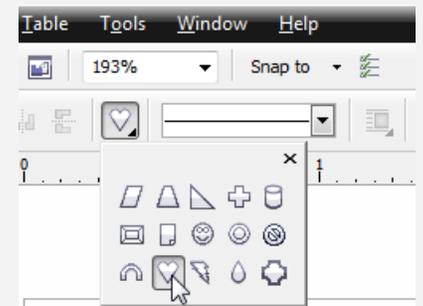


# Tinker Tuesday Project - Fabric Engraving

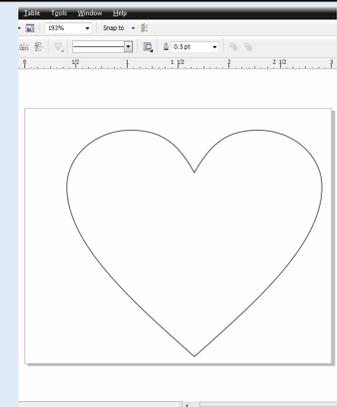
1. Open CorelDRAW and create a new document. On the toolbar on the left side of the screen, select the “Basic Shapes tool” icon. This will allow you to create simple shapes.



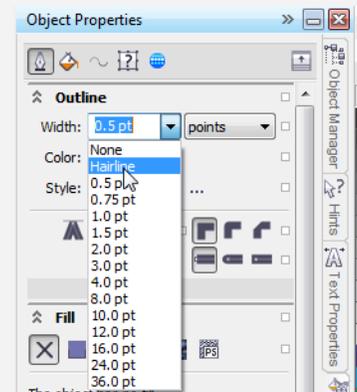
2. On the toolbar that runs horizontally across the top of the screen, click on the “Perfect shapes” icon and select the shape you’d like to draw.



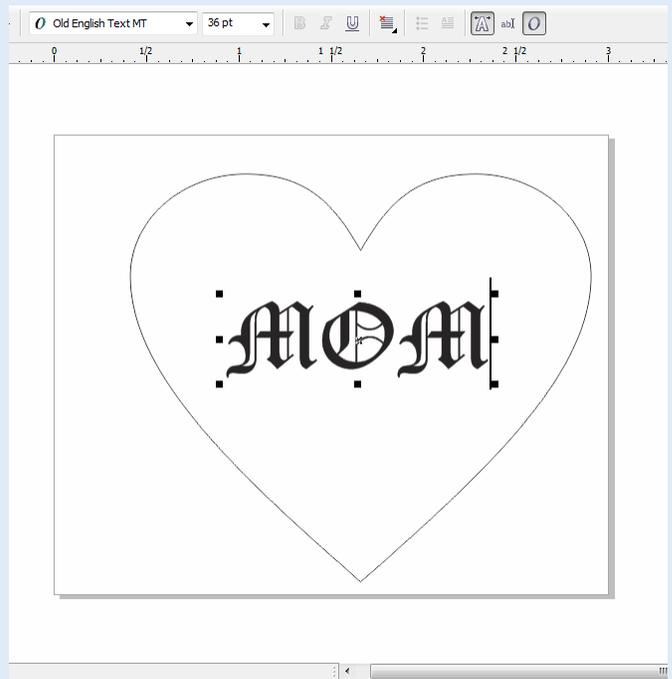
3. Click and drag the mouse in your document to “draw” your shape. You may resize the shape after it is placed by clicking and dragging the image from any corner.



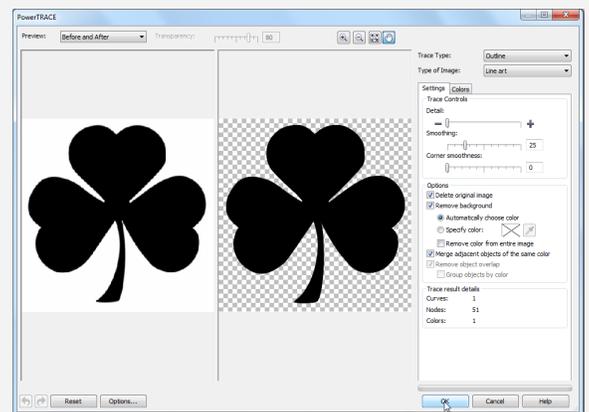
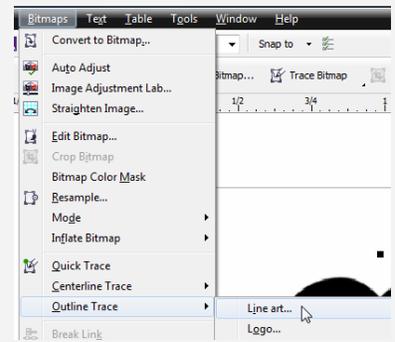
4. CorelDRAW determines which lines need to be cut by the thickness of the line. Any line set to “hairline” thickness will be cut out. To change the thickness of a line, go to the Object Properties area on the right side of the page. In the area titled “Outline,” click the “Width” box and change the setting to hairline.



5. If you would like to add text to your design, select the text tool from the toolbar on the left side of the screen. Then, click within your document and begin typing. You can change the font and font size in the toolbar that runs horizontally across the top of the screen.



6. If you'd like to use an image from the Internet or elsewhere, you may add it to your document by going to "File -> Import" and selecting your image file. When importing images, though it may not look like it, your image likely has a white background behind it. This background needs to be removed. On the top menu bar, click "Bitmaps," then "Outline Trace," and then "Line art." CorelDRAW will perform a "trace" of your image, leaving only the image without a background. Be sure the "Delete original image" option is checked, then click OK.



*Note: The trace feature will not work well for all images, especially complex ones.*

7. If it isn't already on, power on the engraver by pressing the button on right side of the machine. You'll hear the engraver start up and see the arm of the laser slowly move to its home position.



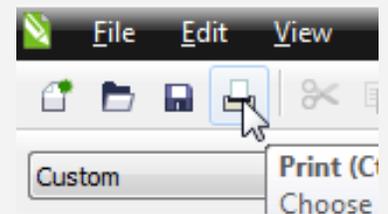
8. The interface pictured on the right is found on the top side of the engraver, toward the lower right. It is used to control the laser arm, as well as to start and stop jobs. After opening the lid of the engraver and placing your fabric flush against the top right corner of the grid, press the Focus button.

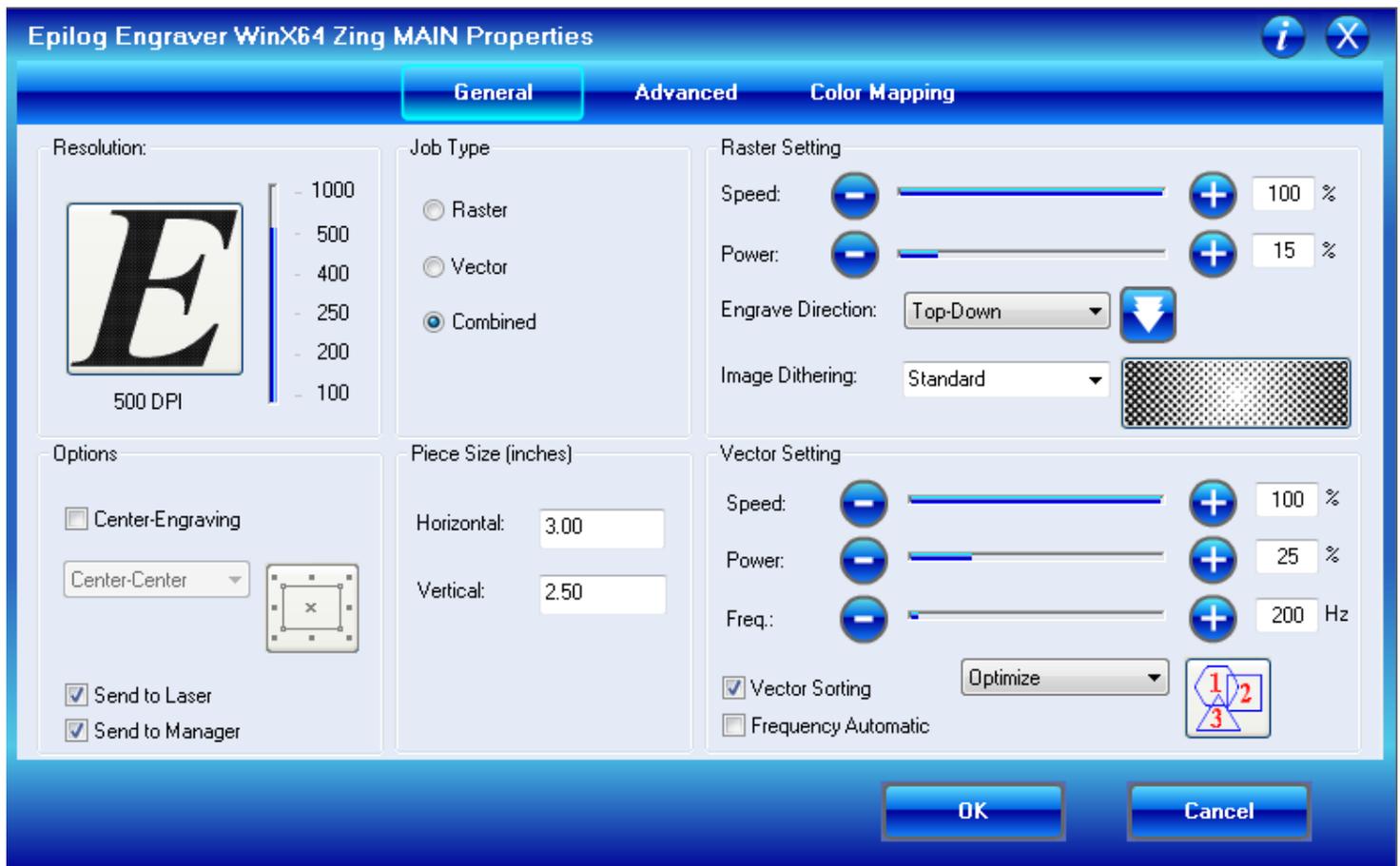


9. Release the spring attached to the arm of the laser so that it is oriented vertically. You can raise and lower the bed of the engraver as needed by using the up and down arrows on the interface pictured in the panel above. Your goal is to raise the bed to a level at which you feel a slight resistance on the spring.



10. After tucking the spring back on the laser arm, move back to the computer. Click the print icon near the top left corner of the page.





11. The Preferences menu is crucial to the engraving process, as it is where you specify all of the settings for your job. While with other engraving jobs, you may use more of the settings, for fabric engraving and cutting, you'll be using four:

-Job Type: Click the "Combined" button. "Vector" is for cutting objects, "Raster" is for engraving them, and "Combined" is for both engraving and cutting.

-Piece Size: In most cases, the dimensions you set here will need to match the size of your CorelDRAW document. If your document is 3 x 2.5, set your horizontal measurement to 3 and your vertical measurement to 2.5.

-Raster Setting: The speed setting determines how quickly the laser arm moves back and forth as it cuts, and the power setting determines the amount of laser power that is applied to the material. The settings you should use depend entirely upon the type of material you are using. For engraving felt, set the speed slider to 100 and the power slider to 15.

-Vector Setting: As with raster settings, the vector settings you should use depend entirely upon the type of material you are using. For cutting fabric like felt, set the speed slider to 100 and the power slider to 25. Set the frequency slider to 200.

Once you have adjusted all the necessary settings, click the "OK" button. On the resulting menu that appears, click "Print."

12. Turn on the vent switch on the bottom half of the engraver. When the vent is on, you should see a small green light on both the switch and next to the green check mark to the right of the switch. If you see the yellow or red light on, DO NOT engrave; notify a library staff member.



13. On the interface on top of the engraver, you should see the name of your file appear in display window next to the word "job." Press the green Go button to begin engraving.



14. Depending on the size and complexity of your design, the engraving process can take anywhere from a few seconds to an hour or more. Engraving and cutting small images out of fabric can be done in under a minute. Please wait by the engraver and keep an eye on the progress of your job so that you may stop the machine or notify a library staff member if you notice problems.



15. When the engraver is finished with your job, you will hear a beeping sound. It is then safe to turn off the vent, open the lid of the machine, remove your engraved object, and enjoy the finished product.



# Fabric Engraving Tips from Epilog

- Generally speaking, higher speed and lower power settings are necessary. The idea is just quickly burn away the top layer of fabric to produce the engraved contrast.
- Since you're only burning away a slight portion of the fabric, select a low resolution level from the Laser Dashboard™. This will help ensure your engraving does not go too deep
- Use sturdy materials that are closely knit. Loose knitting (like that found in terry cloth) is more prone to scorching than engraving.
- Fabrics that DO NOT engrave well include terry cloth (robes, towels, etc.) and plush (bathroom rugs, toys, etc.) For the most part, the threads are not tightly-knit and lend themselves to burning as opposed to engraving.
- Other fabrics that engrave nicely include fleece, felt, denim and genuine leather.