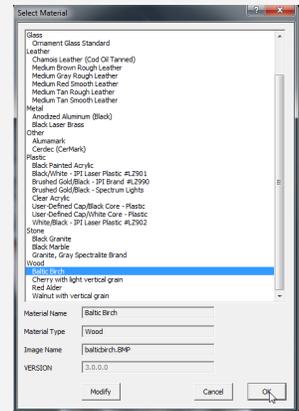


Tinker Tuesday Project - Photo Engraving

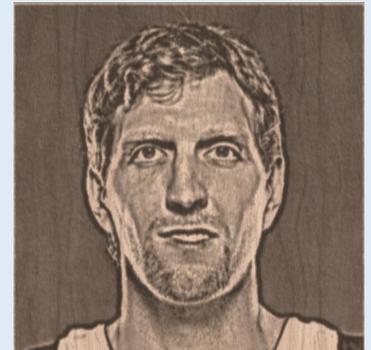
1. Open PhotoGrav. Click the “Open Image” icon near the top left corner of the screen. Select the image file that you would like to engrave, then click “Open.”



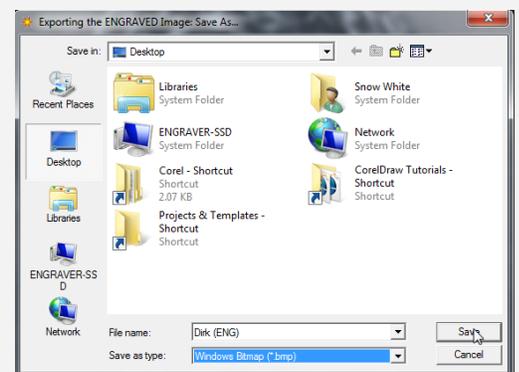
2. Click the “Select Material” icon. On the resulting menu, select the type of material on which you will be engraving, then click “OK.”



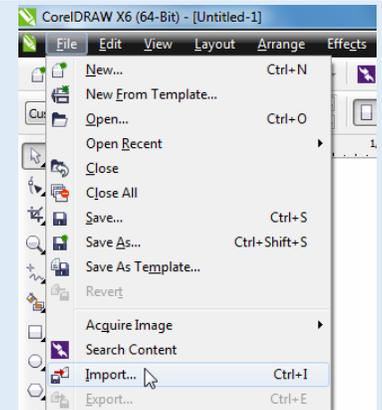
3. Click the “Final Process” icon. You will then see a simulated image of how your photo will look once it is engraved.



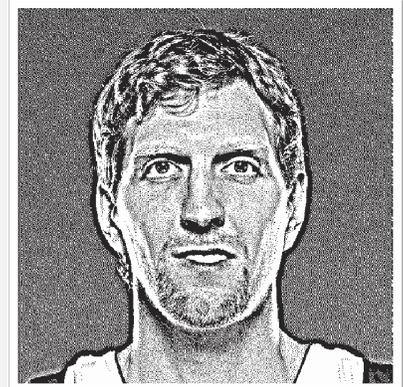
4. Click the “Save Image” icon. In the “Save as type” box, select “Windows Bitmap,” then click “Save.”



5. Open CorelDRAW and create a new document. Near the top left corner of the screen, click “File,” and then click “Import” on the resulting menu. Select an image from the desktop of the computer.



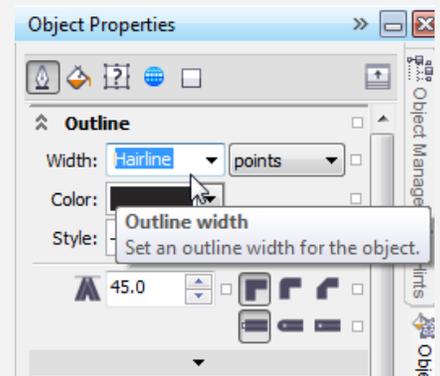
6. On your blank document, click and drag to import your image. Once your image is placed, you can click and drag any of the black squares surrounding it to resize it.



7. If you would like to remove the background your photo, you may attempt to do so with the eraser tool. Select the eraser tool from the toolbar on the left side of the screen, then carefully erase the background from your photo by clicking and dragging the mouse.



8. If you would like to cut out your image, first select the rectangle tool from the toolbar and create a rectangle around your image by clicking and dragging the mouse. Then, change the thickness of the rectangle by going 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.



9. 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.



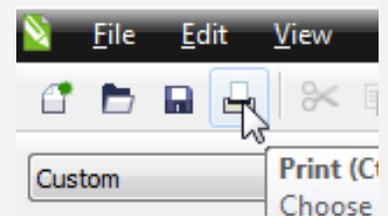
10. The interface pictured on the right is found on the top side of the engraver, toward the lower right. It is used to control the laser arm, as well as to start and stop jobs. After opening the lid of the engraver and placing your wood flush against the top right corner of the grid, press the Focus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

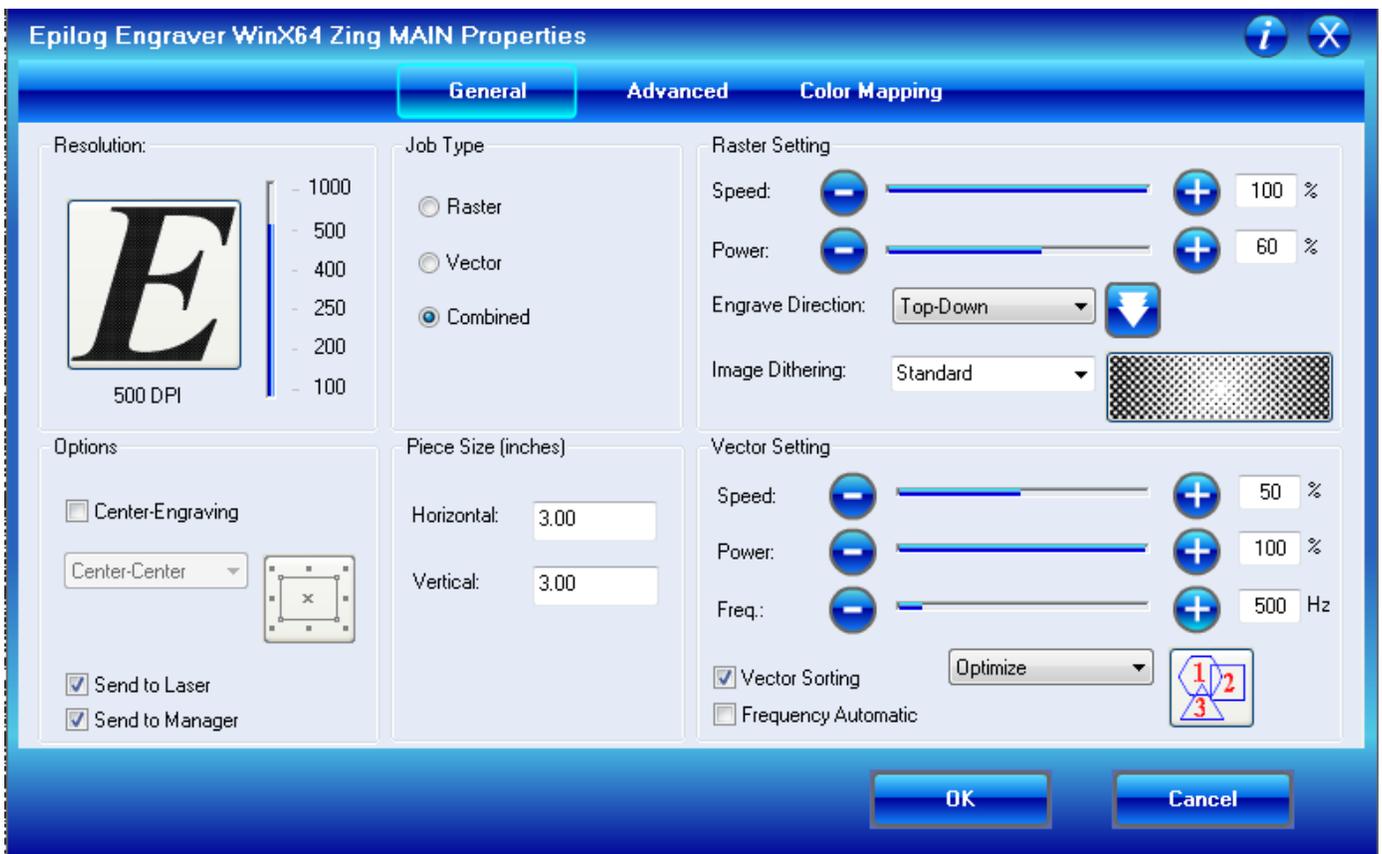


11. Release the spring attached to the arm of the laser so that it is oriented vertically. You can raise and lower the bed of the engraver as needed by using the up and down arrows on the interface pictured in the panel above. Your goal is to raise the bed to a level at which you feel a slight resistance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



12. 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. On the resulting menu, click "Preferences."





13. 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 or fewer of the settings, for photo engraving, you'll be using four:

-Job Type: If you plan to cut out your photo as well as engrave it, select “Combined.” “Vector” is for cutting objects, “Raster” is for engraving them, and “Combined” is for both engraving and cutting. If you only wish to engrave your photo, select “Raster.”

-Piece Size: In most cases, the dimensions you set here will need to match the size of your CorelDRAW document. If your document is 3x3, set your horizontal measurement to 3 and your vertical measurement to 3.

-Raster Setting: The speed setting determines how quickly the laser arm moves back and forth as it engraves, and the power setting determines the amount of laser power that is applied to the material. The settings you use should use depend entirely upon the type of material you are using. For engraving a photo on wood, set the speed slider to 100 and the power slider to 60.

-Vector Setting: As with the raster settings, the settings you should use depend entirely upon the type of material you are using. For cutting eighth inch thick wood, set the speed slider to 50 and the power slider to 100. Set the frequency slider to 500.

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

14. 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.



15. 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.



16. 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 a small photo should take around 5 minutes. 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.



17. 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.

