# CREATING COMPLEX CUT LINES IN ADOBE ILLUSTRATOR 2024

This document will guide the user on how to create cut lines around complex shapes/images. And then later, have the images printed and cut using a vinyl printer/cutter. These set of instructions were created with a Roland Vinyl Printer/Cutter in mind.

Note: For this kind of project, it seems that an image in jpg format seems to work the best. It is recommended that you ensure or convert your image to jpg before you start creating the cut lines.

1. Open the file in Adobe Illustrator using File>Open.
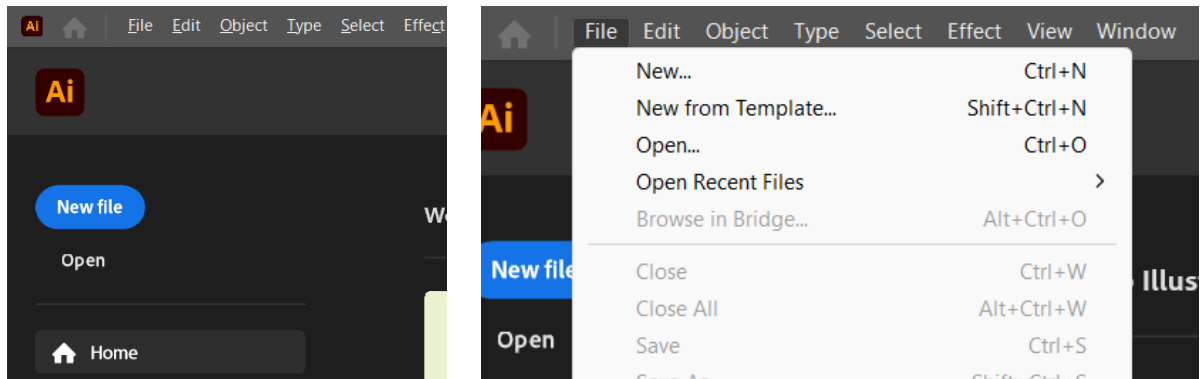
When you initially open the file, you might need to resize it to fit the work area. Make sure you have the Selection Tool selected. Click on the corner of the image and wait until the double arrows show up. While holding **shift and left click**, start dragging the corners inward or outward. This will adjust the size of the image without disturbing its aspect ratio. There should not be any stretching or skewing happening. If that does happen, just Undo or **Ctrl+Z**
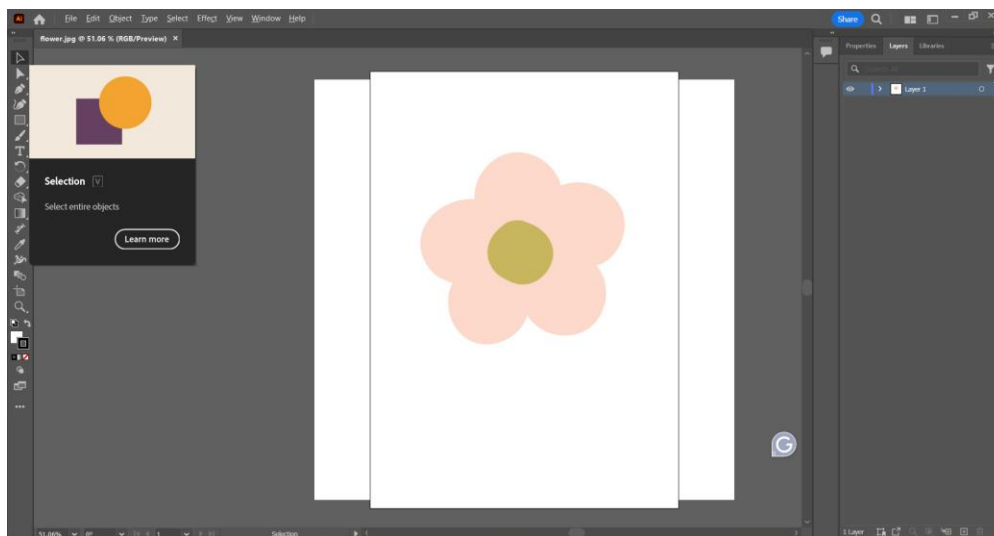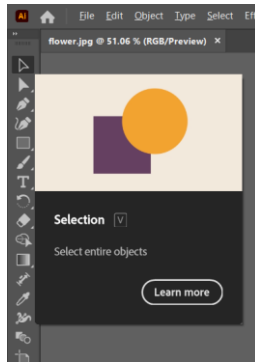
2. Go to Layers which should be on the upper right corner. Make sure that the Layers tab is active. You should see Layer 1 in that area. We now need to duplicate this layer. Go to the burger menu or 3 horizontal lines on the upper right corner of that area. Click on that menu.
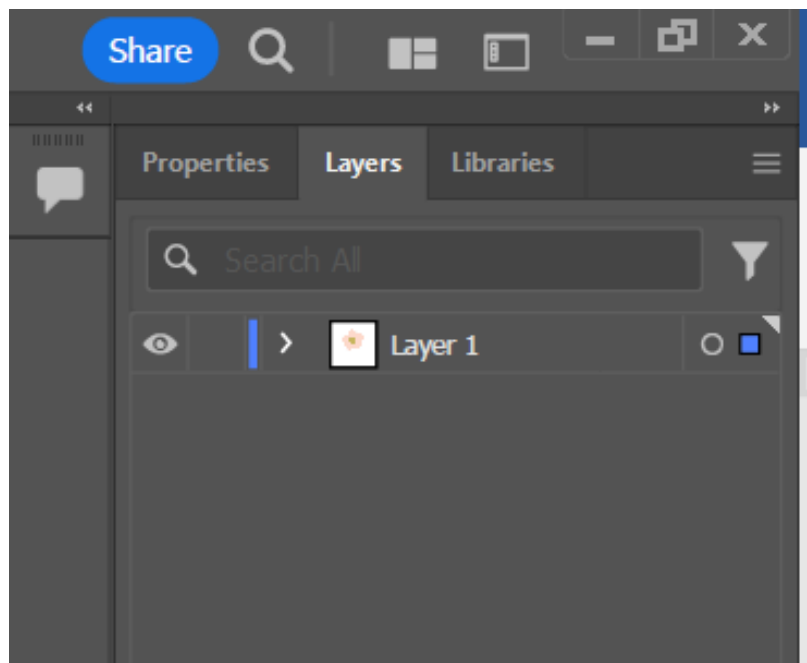
3. A drop down should appear. Choose Duplicate "Layer 1." A new layer should appear above Layer 1 now which will be labelled Layer 1 copy.
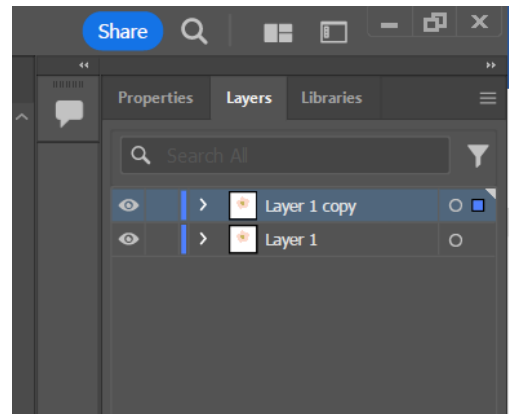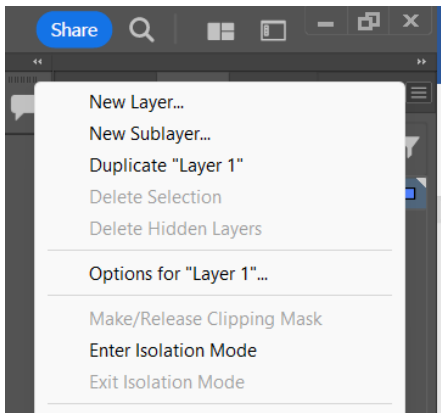
4. Click on the eyeball to the left of Layer 1. Layer 1 copy should still have the eyeball. Layer 1 copy should also be highlighted and to the right of it should be a blue dot. This means that this is the active layer. And that any edits or adjustments that are being done on the image is being done on that layer.
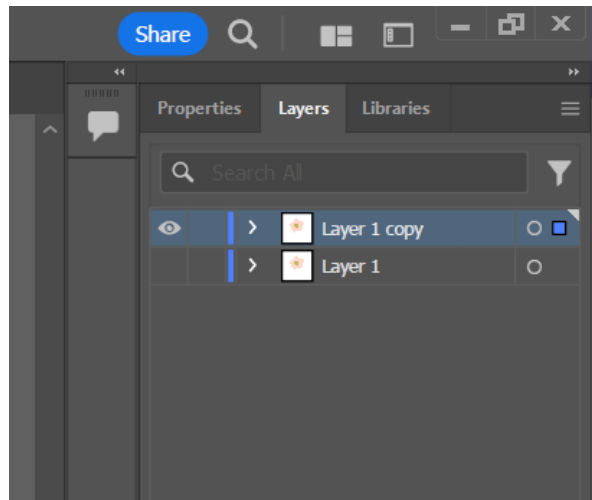
5. Now go to Window and bring up Image Trace. Under Image Trace, go to Preset and click the drop-down arrow. Select Sillhouettes. Once you do that, you will notice that your image has gone all black or became black and white. This is what we want to happen. Doing this identifies the boundaries of the image which will help us create the cutting path.
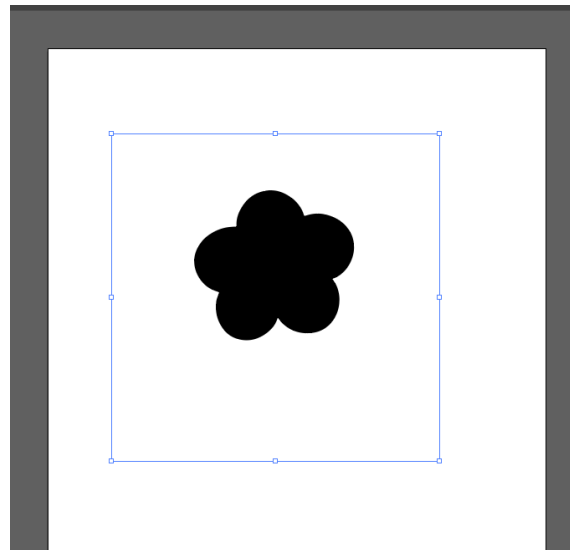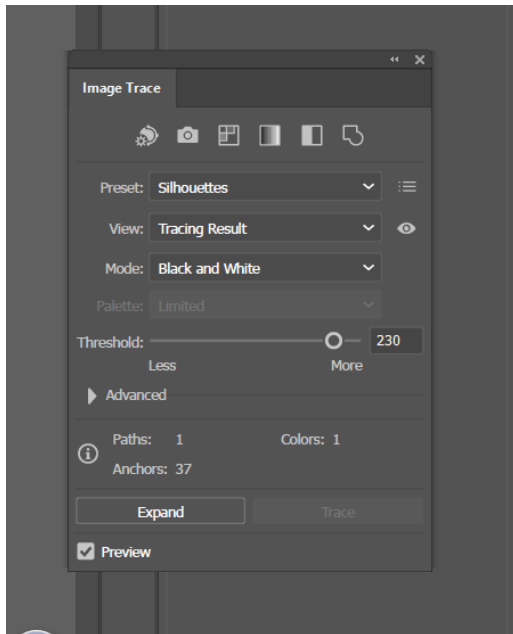

6. Now on the top menu, go to Object>Image Trace>Expand. This is a different Image Trace, do not confuse this with what was done in the previous step. This step will produce the outline for the image which will be the basis of our cutting path.

7. On the left side menu, go to Fill and Stroke. Click on the swap arrow. Once you click the swap arrow, the icon should be the solid square in the background having a red slash and the hollow square or frame should be black. You will notice that the image has changed too. It's not black or black and white anymore. It will just be the outline of the image.
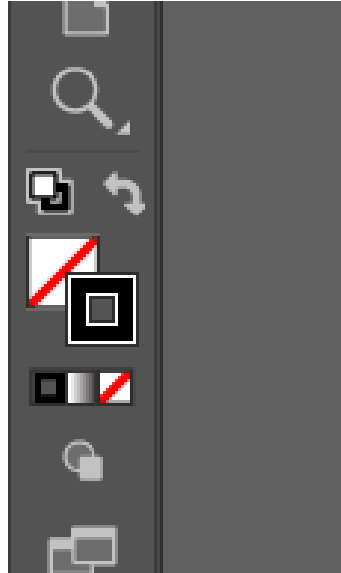

8. On the left side menu still, click on the Direct Selection tool. This tool is used to select cutting paths in the image. You will use this tool to select the cutting path and to delete any other paths so that the vinyl cutter won't cut those lines. To remove, click on the path you wish to delete and then press the "Delete" twice. You do not need to do this step when you don't see any paths that you wish to delete.
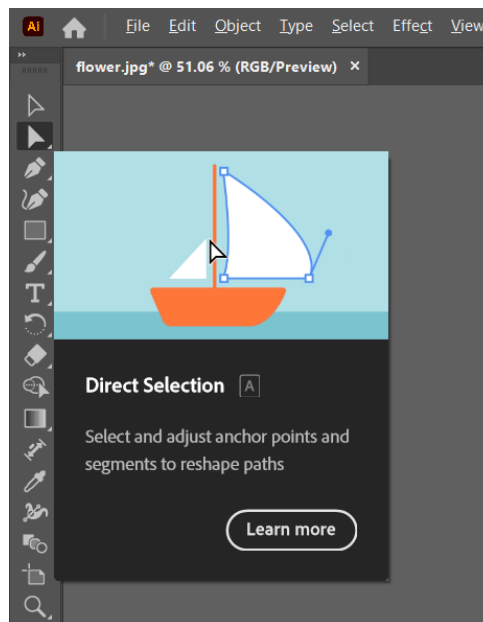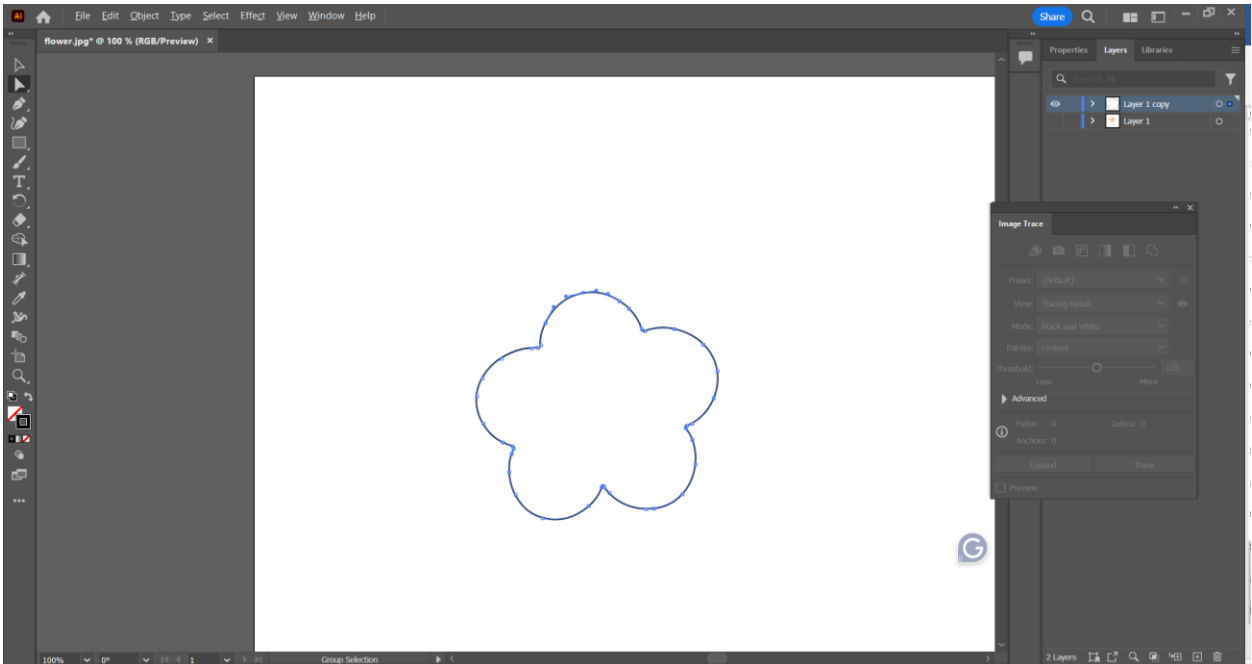
9. Offsetting – Sometimes you don't want to cut right at the boundary or edges of your image, you sometimes want a bit of space around it. This is called offsetting. To place some offset on the image, click on the path that you wish to offset. Make sure you are still using the Direct Selection tool. Go to Object>Path>Offset Path. The Offset Path menu should pop up and the value that you want to adjust is offset. Put the value that you wish. The higher the value, the wider the offset.
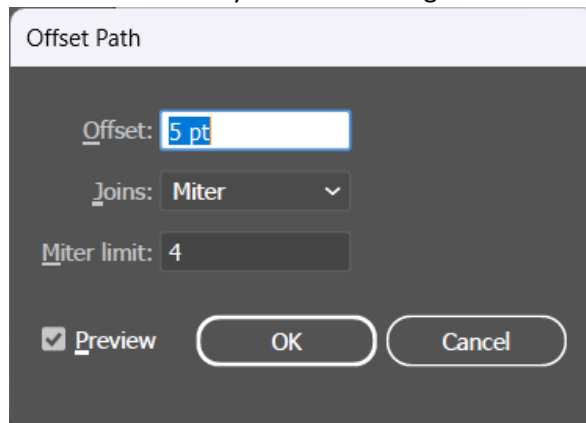

10. Now you should have two outlines there. If you want the machine to cut the offset, delete the inner paths following the earlier instructions on how to delete unwanted paths. There should only be one pat remaining now.
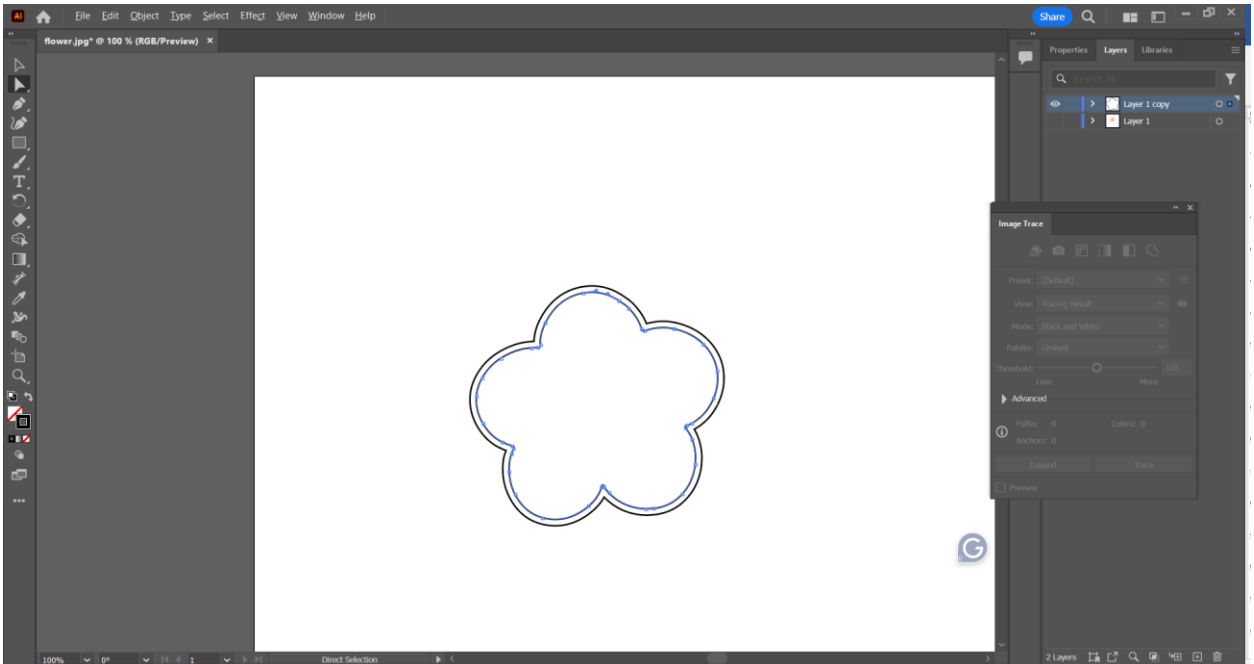
11. For the Roland Versaworks software to recognize this as a cut line, it needs to be a specific colour (Magenta). To add that colour, open up Windows>Swatches. Once that panel is open, click on the burger menu or 3 horizontal lines on the upper right and select "Open Swatch Library." Select Roland Versaworks. Depending on how the computer is set up, you might need to select "Other Library" sometimes and choose the Roland folder from there. The swatch file you want is Roland Versaworks.
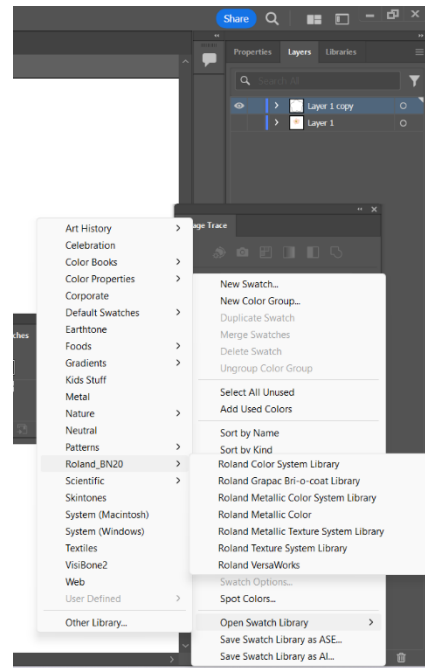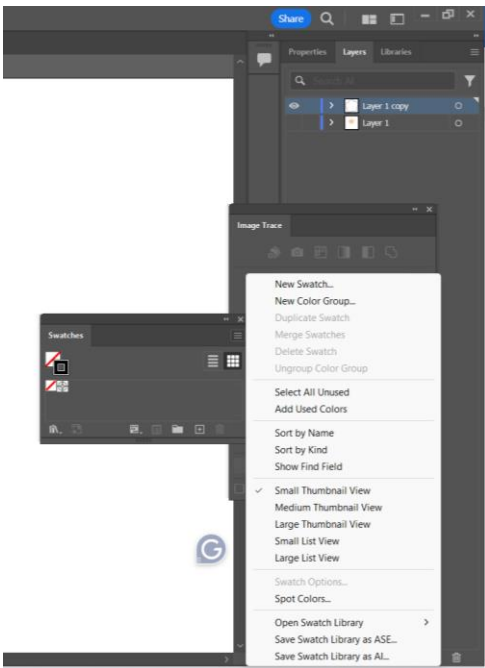
12. Once you have chose Roland Versaworks, the corresponding panel will pop up. You should see the magenta colour there. It is also labelled CutContour when you hover over it.
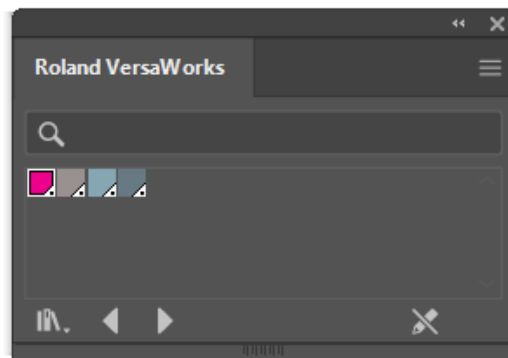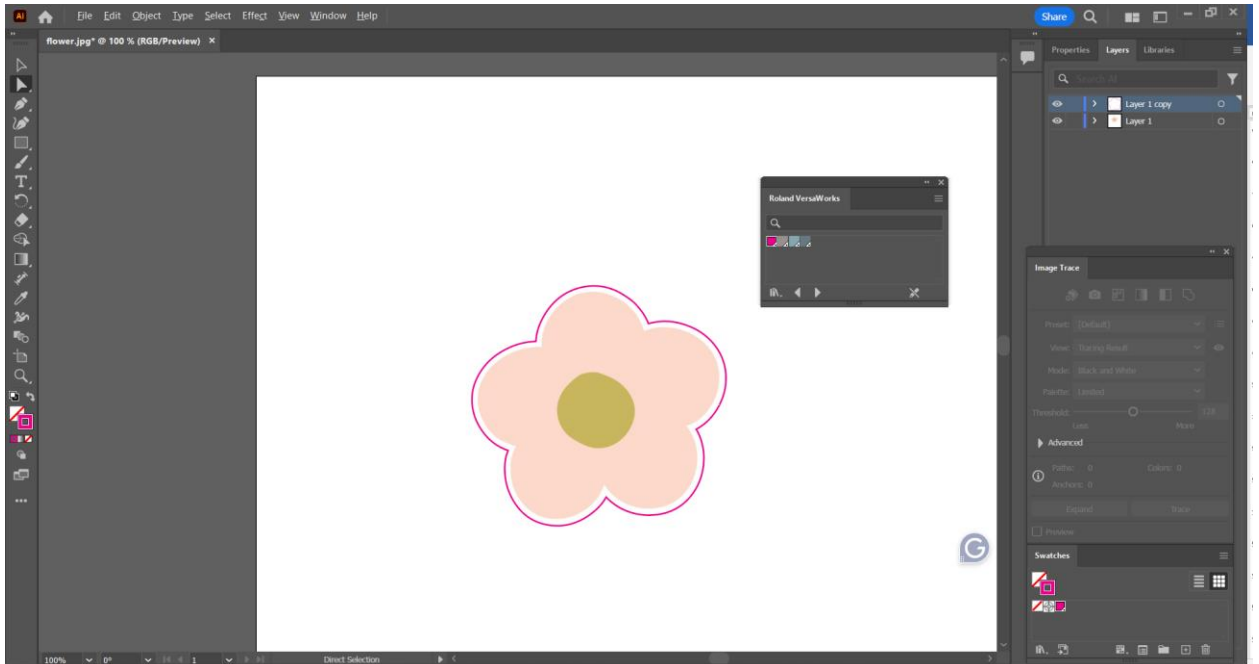

13. Making sure that you still have the Direct Selection Tool clicked, click on the outline that you want to be the cutting path. Once the path is selected, click on the magenta. The outline should now be magenta.
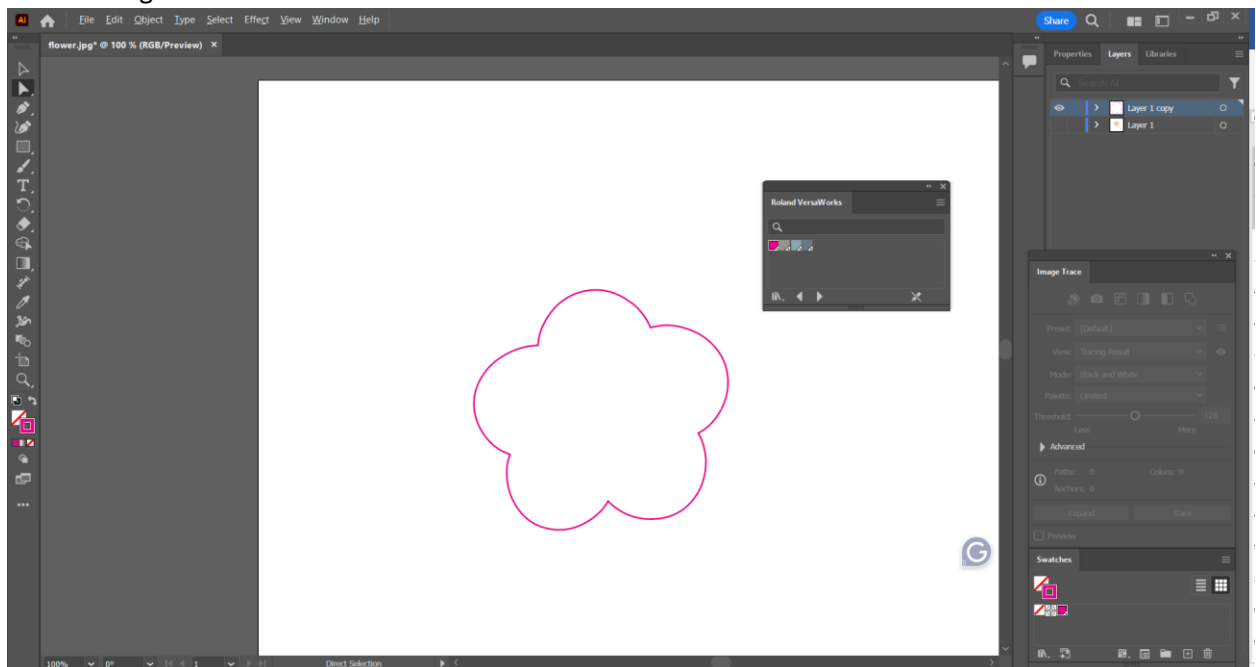
14. Go back to the Layers panel and unhide Layer 1.
15. Your image should now have a magenta outline around it.

16. To save the image, go to File>Save As. Choose the .EPS (Illustrator EPS) file type. When the EPS options panel show up, there is nothing to adjust there, just click ok.