

VINYL CUTTER GUIDE for 12x12



Silhouette Cameo 4 (12x12 inch bed)

** The cutter uses Silhouette Studio software*

PREPARE YOUR DESIGN

1. Prepare a **.PNG** or **.JPG** file of your design with high contrast so the cutter software can trace the cut lines. Black and white is ideal.

NOTE: you may scan drawings to JPG, use high-contrast JPG photographs, or export vector files as PNG or JPG.

NOTE: The Silhouette Cameo 4 vinyl cutter has a 12x12 inch cutting bed, and the size of the design is further limited by the size of the vinyl pieces on hand. You may tile your design onto multiple pieces of vinyl to assemble a larger stencil.

*NOTE: The **Silhouette Studio software** is on the computer attached to the vinyl cutter, but you may **download it for FREE** to your device here: <https://www.silhouetteamerica.com/software>*

SET UP THE VINYL CUTTER

2. Turn the vinyl cutter on by pressing the power button on the right-hand side of the machine (the glowing power button or panel buttons indicate that the scanner is already on). Make sure the cutter USB-A cable is plugged in to the computer.

3. Choose a piece of vinyl appropriate to your use and no larger than 12x12 inches.

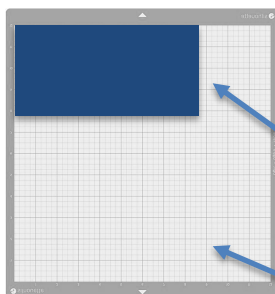
NOTE: for stencils color does not matter, but having an adhesive side may be necessary.

4. Remove the vinyl cutter mat from the mat storage space, then remove the protective sheet that covers the adhesive side of the mat.

NOTE: Please re-adhere the protective sheet after use.

5. Adhere the vinyl to the area of the mat that will correspond to your design; usually the vinyl should align with the upper left-hand edge of the mat grid at 0x0 inches.

NOTE: Make sure the vinyl is facing up and the backing to the vinyl is adhered to the mat.



Mat

Adhere vinyl starting at the top left of the grid

6. Insert the edge of the cutting mat into the machine taking care to make sure it is properly aligned with the guides on the machine. Once it is aligned, press the glowing UP ARROW button on the panel at the right-hand side of the machine; press the DOWN arrow if needed to remove the mat.. The machine should load the cutting mat up to the edge of the vinyl.



OPEN THE SOFTWARE

7. Go to the top menu bar on the computer desktop and click on the magnification glass icon on the right-hand side of the menu bar. This will open the search function, called "Spotlight Search"



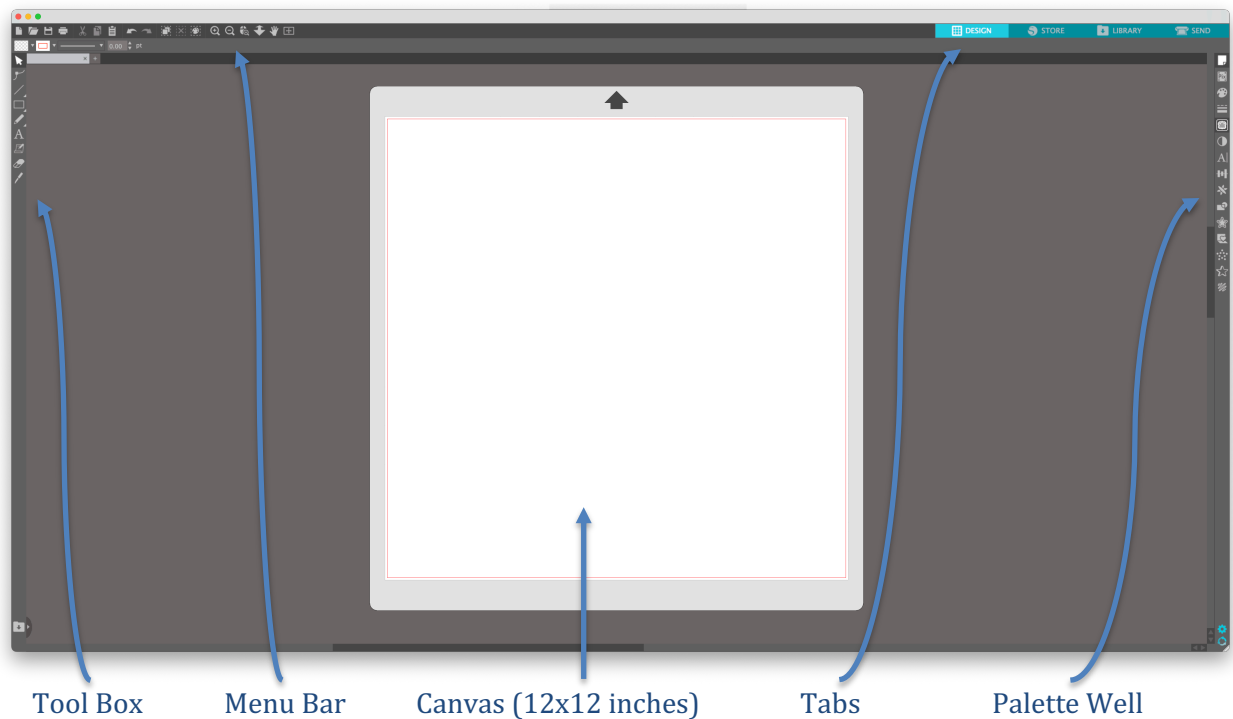
8. Type: **Silhouette Studio** into the search field.



9. Choose the Silhouette Studio App.



10. Silhouette Studio Software will open to the **DESIGN** tab (*the tabs are located in the upper right*). The square canvas in the center matches the 12x12 cutter bed of the machine; the arrow at the top indicates the top edge of the cutter bed that will be fed into the machine.



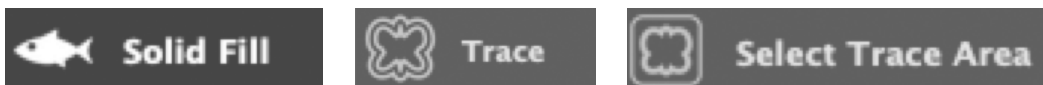
11. Go to FILE on the menu bar and down to OPEN.
Then scroll to your design file (.PNG or .JPG) and open it.
12. Resize your design by using the nodes at the corner of the design.
Use the “live ruler” that appears as you resize your design to determine the size you need, or if you need a precise size, type the size into the sizing box in the upper left on the menu bar.
13. Use your cursor or the arrow keys to move your design to the space on the canvas that corresponds to the area you want to cut on the cutting bed.
14. Once your design is complete, determine if you need to mirror your design.
NOTE: Stickers, wall vinyl, and painting stencils usually DO NOT need to be mirrored. Screen printing stencils and stickers that are mounted behind glass usually DO need to be mirrored.
To mirror, **select the design elements** that need to be mirrored by clicking on them.
Then go to **OBJECT** in the menu bar, then down to **MIRROR**, then choose **horizontal mirroring**.
15. Go to the Palette Well on the right-hand side and down to the TRACE PALETTE (butterfly icon).
The TRACE PALETTE will open.



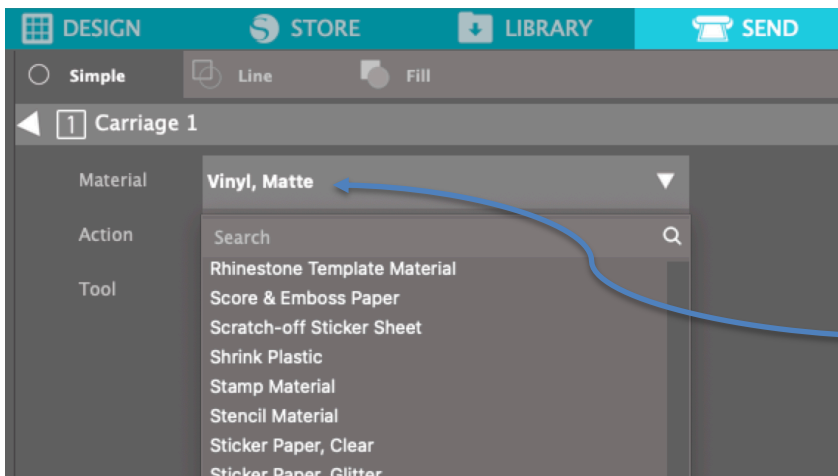
16. Next choose SELECT TRACE AREA
Use the cursor (no special tool needed) to draw a box completely around your design to select it.
This should highlight your design and show the **cut lines in tiny red lines** around your work.

*NOTE: If you can't see the **red cut lines** very well, go to the **tabs** on the upper right-hand corner of the software window and switch from the **DESIGN** tab to the **SEND** tab. The **red cut lines** are easier to see in this tab. Switch back to the **DESIGN** tab if you need to keep working.*

17. If the trace doesn't match your expectations, go back to the TRACE PALETTE
Choose SOLID FILL (fish icon) from the palette.
Then choose TRACE.
Then choose SELECT TRACE AREA again
Then use the cursor again to draw a box completely around your design to select it.



18. Once the **red cut lines** look good to you
Go to the **SEND** tab in the top right of the software screen.
19. The palettes will now display the **SEND** tab settings.
Go to CARRIAGE 1
Go to MATERIAL
Scroll down to the material you are using. This will often be VINYL, MATTE or VINYL, GLOSSY.



An incorrect material setting can damage the cutting blade and result in a failed cut.

20. The settings for the material you chose will appear. Use the default settings for the material.
*NOTE: you may go down to the **TEST** button to see how the design will cut.*
21. Go down to the **SEND** button and hit **SEND**.
The cutter will begin.
22. Once your design is cut:
Save your digital file as needed.
Remove the vinyl from the mat.
Put the protective sheet back on the mat and return the mat to its storage location.
Turn off the vinyl cutter using the button on the right-hand side.
23. You may need to “weed” out the extra parts of the vinyl that you do not want to be part of your design. Use an X-acto knife or other tool to remove those pieces from the backing paper.

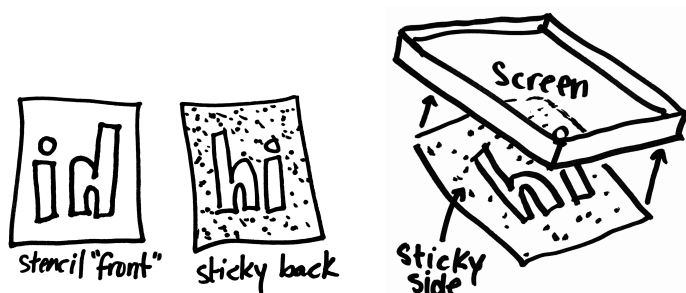
ENJOY!

FOR SCREEN PRINTING:

*NOTE: Screen printing stencils should be **MIRRORED**.*

Any text should be “backwards” so it looks correct when it is mounted on the print-side of the screen.

24. Screen printers WILL need to “weed” out the extra parts of the vinyl that you do not want to be part of your design. The open areas are where the ink will come through. The vinyl is the area that will block the ink.
25. After “weeding”, grab a piece of transfer medium (similar to contact paper). Pull the backing off the transfer medium and apply the sticky side of the transfer medium to the design. It can be helpful to have an extra set of hands, and to apply the transfer medium sheet from one corner of the vinyl design to the opposite corner to reduce any air bubbles. I use a credit card or similar tool to scrape out any bubbles and make sure the vinyl is fully adhered to the transfer medium.
26. Next, prepare your screen for the vinyl. Wash/degrease your screen and wait until it is fully dry.
27. You will want to apply the vinyl to the print-side of the screen (SEE BELOW).



The sticky side will adhere to the print-side of the screen.

The well-side on top of the screen will remain open for ink.

The stencil image should have the correct orientation (text is legible) when the screen is well-side up.

28. Gently peel the vinyl backing off the vinyl so the vinyl remains on the transfer medium sheet. This can be tricky. It can be helpful to have an extra set of hands. I tend to almost roll the backing off the vinyl while checking to make sure the vinyl sticks to the transfer medium and not the backing. If it sticks to the backing I roll the backing back down, use a credit card or similar tool to rub the vinyl back in to place, then try to roll the backing off the vinyl again. It can be a slow process.
29. Now you are ready to put the vinyl on the screen. The process is very similar to #25 above. It can be helpful to have an extra set of hands, and to apply the transfer medium sheet to the screen from one corner of the vinyl design to the opposite corner to reduce any air bubbles. Use a credit card as needed to remove bubbles.
30. Optional: Once adhered to the print-side of the screen, grab a piece of newsprint (or at least use a clean area) and put the screen print-side down. Grab another sheet of paper and use the credit card to press over the screen mesh. This process uses the support of the table to press the vinyl and mesh together.
31. Now remove the transfer medium from the screen leaving just the vinyl stencil. The process is very similar to #28 above.
NOTE: The sheet of transfer medium can be used again, so if possible re-adhere the backing and save it for future use.
32. Once the vinyl is adhered, you are ready to tape your screen edges and start the printing process or you can store your screen in our classroom to print later in the week. The vinyl can last on your screen for a decent run of prints as long as it doesn't get too much moisture. If you are over-flooding your screen with ink or if you attempt to wash out your screen, the vinyl will begin to come off. If you have a little vinyl peeling you can try to re-adhere it with ink or temporary adhesive (like the hinge-board adhesive in the classroom) or you can cut a piece of tape to match the problematic vinyl piece and adhere the tape to the screen.

*NOTE: The cut vinyl stencil method usually only **lasts one print session** since the stencil will come out if you wash the screen to change ink colors (changing ink colors without washing would be fine) or when you clean the screen at the end of the printing session.*

HAPPY PRINTING!