Cricut Maker 3
Vinyl Cutter

Introduction:
Our Cricut traces a thin blade along the surface of a sheet of vinyl, cardstock, or fabric cutting out a design. Our vinyl can be either an adhesive backed decal or a heat transfer design. Either option will be a single color when completed, though you can layer and stack colors to create multicolor designs. It can also draw images using a series of pen attachments.

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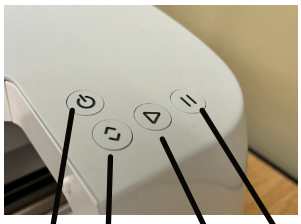
General information

Types of vinyl

The vinyl cutter has two types of vinyl we typically use. The first is decal vinyl, a sticky backed vinyl that comes in either a glossy "permanent" variety or a matte "removable" variety. The other kind is a heat transfer vinyl that fuses to fabric through heat. The Cricut only works with single color vinyl, not printable vinyl. To use printable vinyl, use the Wide Format Printer.

There is additionally a set of drawers near the Cricut with remnants. You are welcome to use a remnant piece at any time.

Parts of the Cricut



- Control panel - Used to turn the machine on, load material, and start projects.
- Tool holder - This holds the tools used for the job. Before you cut your project it will tell you to set certain blades in place. This is where they are placed.
- Storage tray - Holds a variety of tools to help with removing your project from the cutting mat. We also store extra blades in here in case you need to swap a tool.
- Cutting mats - We have four types of cutting mat in two sizes each that are used with running material through the Cricut.

Cutting mat usage

There are four kinds of cutting mat the Maker Studio offers for the Cricut. What each one is typically used for is listed below.

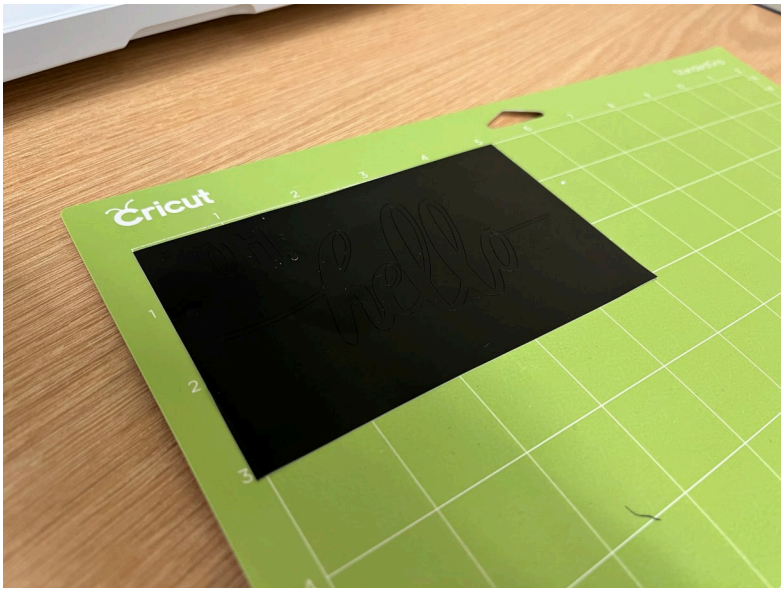
 Light Grip	Printer paper Thin cardstock Vellum Construction paper Vinyl
 Standard Grip	Cardstock Pattern paper Embossed cardstock Iron-on Vinyl
 Strong Grip	Thick cardstock Glitter cardstock Magnet material Chipboard Posterboard Fabric with a stiffener Leather
 Fabric Grip	Fabrics

Loading material onto a cutting mat

1. Select the appropriate cutting mat using the above guide or the chart on the wall. Peel the clear protective layer off the cutting mat.

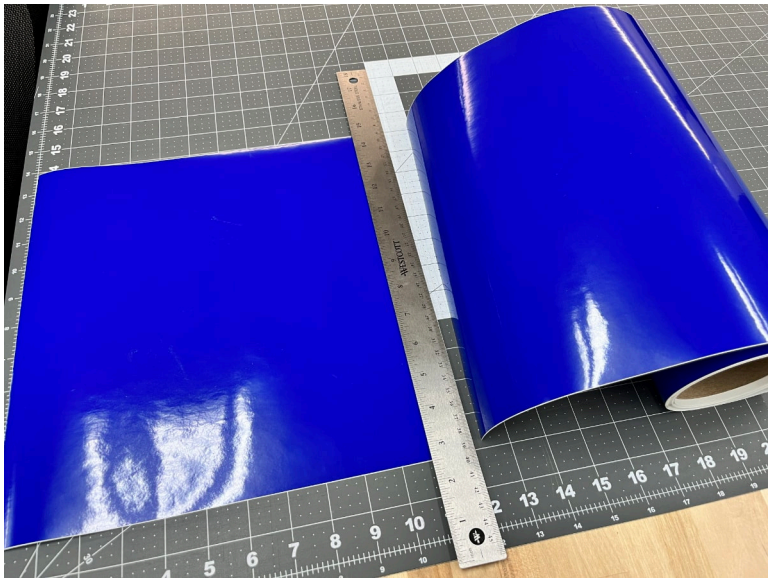
2. Remnant material can be found in the drawers organized by the type of material. Please use any remnants that are sufficiently large enough for your project.

3. If using a remnant, place it into the top left corner of the mat. Press it down flat.



a. If you're using adhesive backed vinyl, the colored side should be facing up.
b. If you're using heat transfer vinyl, the shiny side of the material should be face down.

4. If in need of a piece larger than any available remnants, take a roll of vinyl off the rack. Using a cutting mat, align the edge with one side and cut a piece large enough to cover the size of your design. Place this cut piece on the mat just as you would with a remnant. Make sure this piece is slightly larger than the overall area of your design. You can choose to either cut any excess off the other dimension now or wait until after your project is complete.



Changing a blade

If you're ever working with a different material than vinyl, such as leather, mat board, or fabric, you may need to change the blade being used. Blades are kept in the storage tray of the Cricut.

1. Open the clamp on side B and remove the blade housing that is in the machine.

2. Take the new blade housing and insert it where the other was, with the outer edge of the housing sitting on top of the clamp area.

3. Close the clamp on side B to lock it in place.

4. Some housings have a gear on the top of it. If so, align the gear with the teeth in the machine.

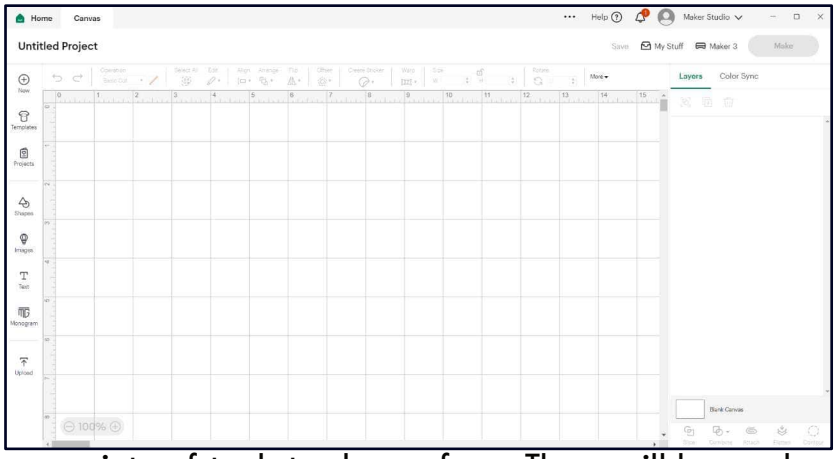
Cricut Design Space

Cricut provides their own software for running the machine. This is called Design Space. The first time you open this up you'll be prompted to sign in or create an account. You will need to create your own Cricut account. It is free to do so, and is required to use the software.

It is also something to point out that Cricut sells their "Access" subscription that will give you extra features, images, and tools. This is optional, and this guide will continue as if you do not have the subscription.

1. Upon signing in you should check the top right corner for New Project.

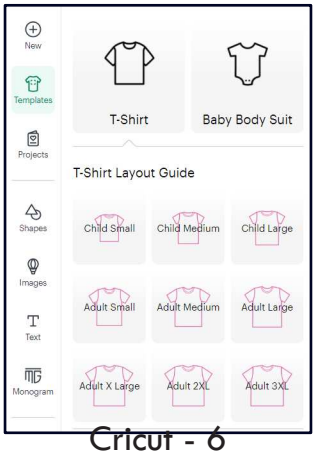
2. The next screen displays your Canvas, the area you'll create your design on.



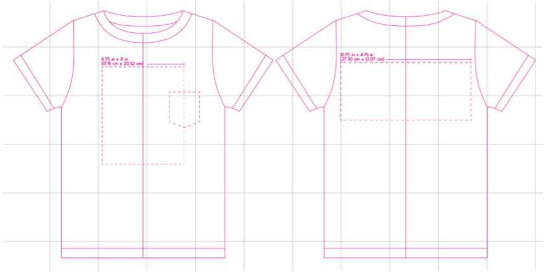
3. The left side has a variety of tools to choose from. These will be explored in the following sections.
4. Using any of the listed tools will add design elements to the Canvas. You can edit and rearrange them as needed.
5. Once your design is established the way you want it, you can proceed to cutting. See the section "Creating your design."

Templates

Templates are a useful reference for when you are creating your design but are unsure of the size you wish you work with. This provides a variety of common objects you could apply your design to. Some have multiple sizes such as shirts, and others like water bottles can be customized to the specific size that they are by applying measurements.



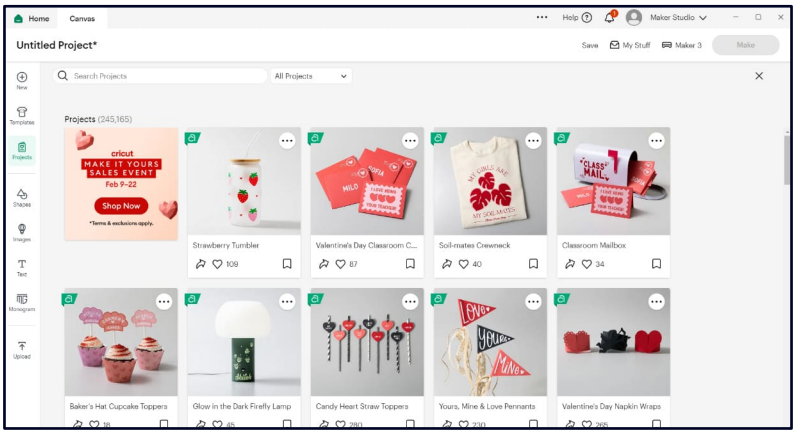
To access these, click the Templates button on the sidebar. This will then give you a list of a variety of different object options. When you click one, if there are multiple sizes in that object, those will then be displayed. Clicking any of them will display it on the canvas.



Templates are not permanent and are just for reference. When you actually go to cut your design the template will be ignored. You can turn it on and off by clicking the eye icon at the bottom of the right sidebar if it helps you not to see it anymore.

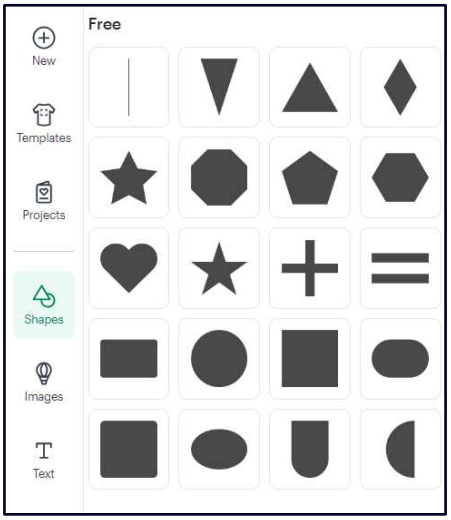
Projects

Projects are ready to complete designs. Many of these require payment and some of them require materials we don't have on hand and tools we don't provide. Check each of these in detail before you proceed with a design.



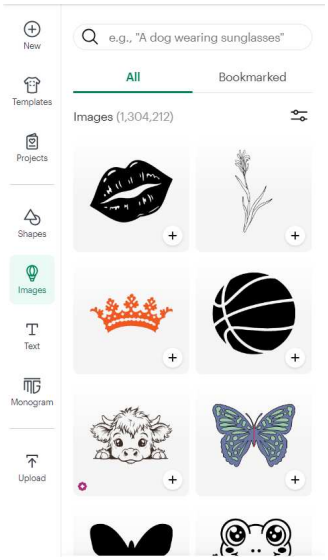
Shapes

Shapes are simple shapes that you can add to your design. There is a small subset that are free to use, and then many more if you have a subscription to Cricut Access. However, many of these can be created or modified from existing shapes, and some are available in a similar style in the Images section.



Images

Images are a collection of ready to go patterns, some multicolor, and some require payment.



When you open the Images button on the sidebar, you get a preview of designs. There is filter button that you can sort out the free designs, and a search bar at the top giving you the ability to find images you're interested in.

When you find one that you like, if you click on it, it will give you a few slight variations that you might like more, or you can press the + button to add it to the canvas.

There is one type of image worth pointing out, and that is "Editable images." These are text based designs with a section of text that can be edited. Common uses of this tool are for birthdays, celebrations, annual events where you can modify the date or quantity within the overall design. Editing text is described further in the next section.

Text

The text tool is how you add and modify words to your design. When you click the Text tool, you'll get a preselected text box with the word "Text" in it. Here you can type and change what the text says.

There is a toolbar that lets you modify the font, size, and more.

Do note that in the font drop down, the Cricut fonts are what it starts you with, but many of these require payment. It's advised you use the "System" fonts which are all the fonts installed on the computer. If you would like to use a different font not listed there, we recommend a website like dafont.com that has many free to use font choices. You can download one for free and use it with Design Space after you install them on the computer.

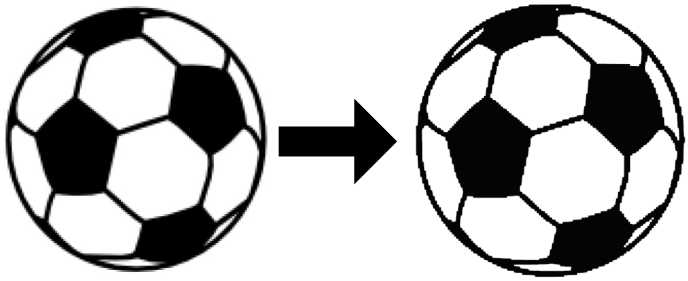
Uploading Images

Design Space gives you the ability to upload images into the program that were found or created else where. For the best results, use an SVG or a PNG with a transparent background. They key thing to remember as a difference between them is a PNG will upload as a single piece that cannot be adjusted. An SVG upload will have each separate piece of the design as its own element that may be moved, resized, or deleted from the rest. A PNG will work for a simple design, an SVG allows for more editing and a more adjustable final product.

Additionally, the broader the shapes the better the finished product will be. Below are some images of a soccer ball. They are arranged from worst to best and reasons are given for the ranking.

Bad	OK	Great
This image has a lot of hand drawn elements with the fill of the shapes. Depending on the size of the finished product, it may not cut those details well. Note: If this was a large scale design, something like this could work well.	This soccer ball is good. It has big broad shapes, however the edge lines are a bit thin. That's not to say this won't work, but having a thicker outline would help with the finished product.	This is a great soccer ball image. The lines are thick, the shapes are filled in, and overall it would be easy to work with and produce a great finished product.

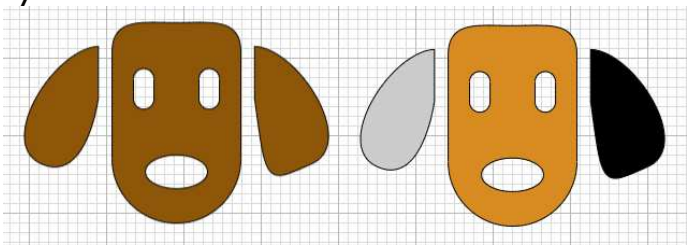
The other thing to consider is having a high quality image. One that is pixelated will not translate well through the upload process. This advice does not apply to images that are intentionally pixelated as a design feature. This mostly refers to a lower quality image that wasn't intended to look pixelated to begin with.



PNG vs SVG

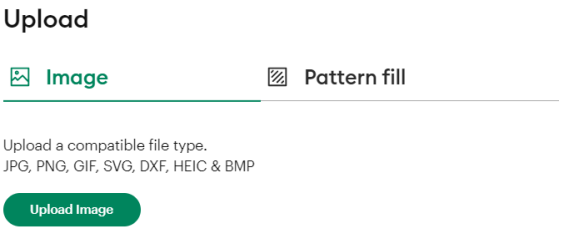
The main consideration when uploading a PNG or an SVG is how you want to use it. They may appear the same, but a PNG is locked as one item. So it can only ever be one color. However if you wanted to use different color vinyls to create your design, and SVG can be

modified by the individual shape. With this example, the dog on the left was a PNG and can only ever be one color. However, the one on the right was uploaded as an SVG and the face and each ear could easily each be their own color.



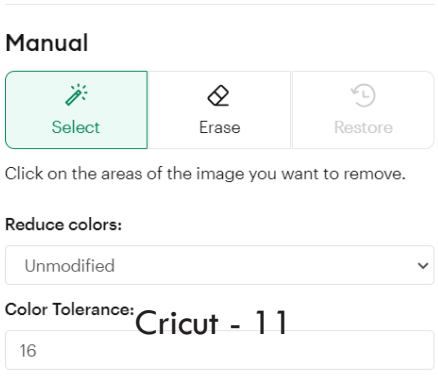
Uploading a PNG

1. Click on the Upload icon on the tool bar.
2. On the next screen select "Upload Image," then Browse and select the image you want to use.

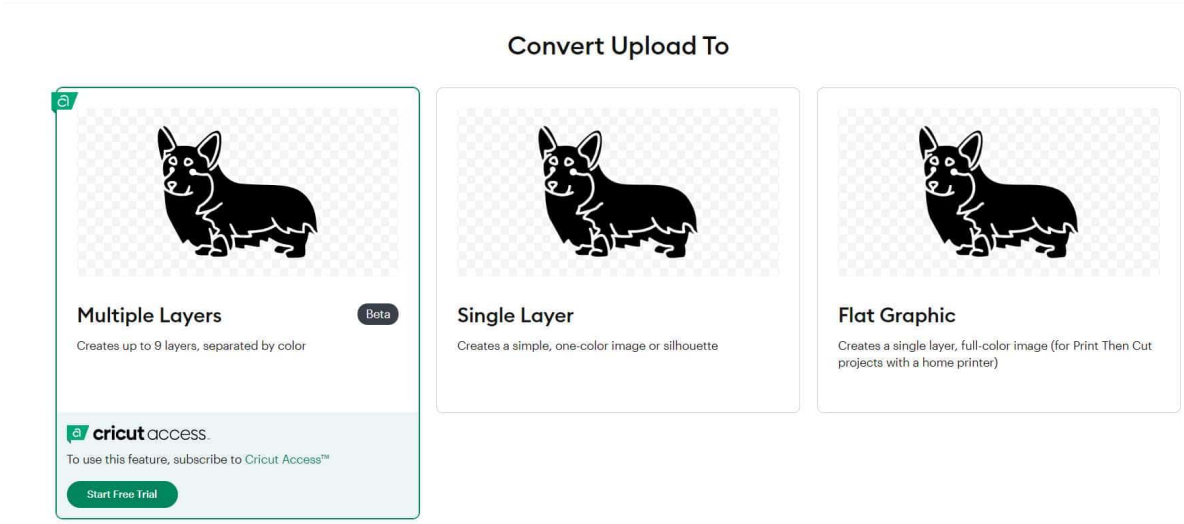


3. With a raster image, it will show you an image of your design. Say Continue.

4. From here you have the option to erase any parts of it you don't want to use. This is particularly important to do if your image does not have a transparent background as you'll need to remove out the background to effectively use the image. The "Select" feature will remove a region of the same (or similar) color from the overall design, useful for removing a background out of a picture. The "Erase" feature will give you a direct eraser to remove individual bits from the design. Once done removing any part of the image you need to remove, click "Apply & Continue."



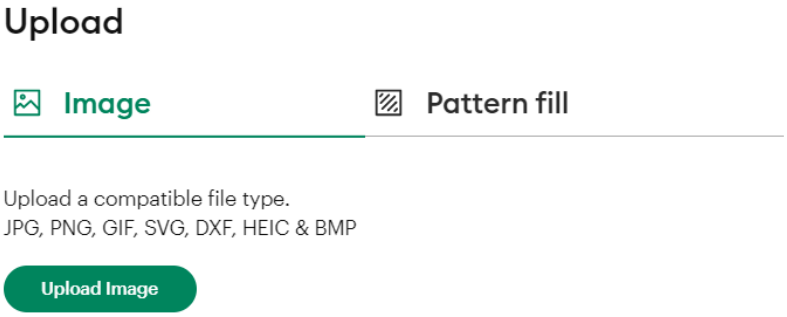
5. It will then give you a screen that asks for the upload type. The first is for multiple color images, and is restricted to users with Cricut Access. The option then is the middle one for Single Layer Design.



   a. Note, the "Flat Graphic" is used for a Print then Cut operation. This is not done commonly in the Maker Studio just because of our equipment layout.
6. Once you've selected your option, you can click Continue.
7. Now you can give your file a name and save it to a particular project folder if you desire. Once set, click Upload and it will add your design to the Canvas.

Uploading an SVG

1. Click on the Upload icon on the tool bar.
2. On the next screen select "Upload Image," then Browse and select the image you want to use.



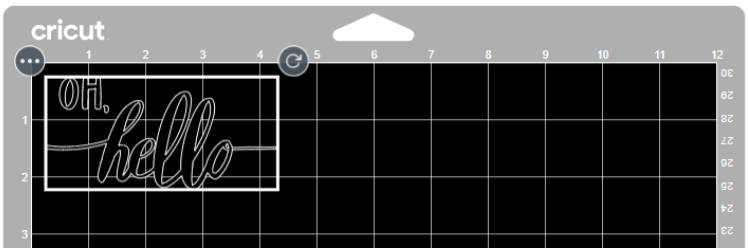
3. Once selected, you are given a preview of the image as a cut image. You can apply any names or save to project folders as you desire. Then click Continue to add your design to the Canvas.

Creating your design

Once your design is ready to cut, there are a few steps to follow. The first of which is to load your material onto a cutting mat. See the section, "Loading material onto a cutting mat."

1. If you uploaded an SVG or you have multiple elements within your design, select everything then join all the elements together using Unite under the Combine menu in the bottom right of the screen.
2. Click the "Make" button in the top right of the screen. Once again check it's set for the Maker 3.

3. The next screen will show your design laid out on to the cutting mat. If you have different colors in your design it will separate each color into their own mat layout. You can click on each part of your design and modify its orientation and position by dragging the rotation arrow in the top right of the image, or by dragging from the center of the design to

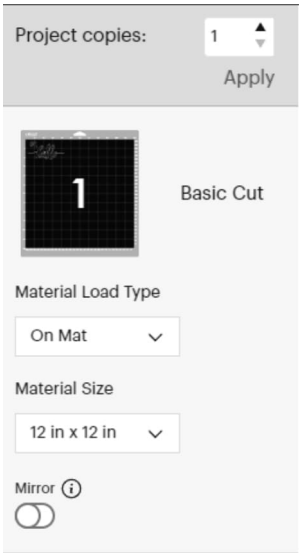


another point on the bed.

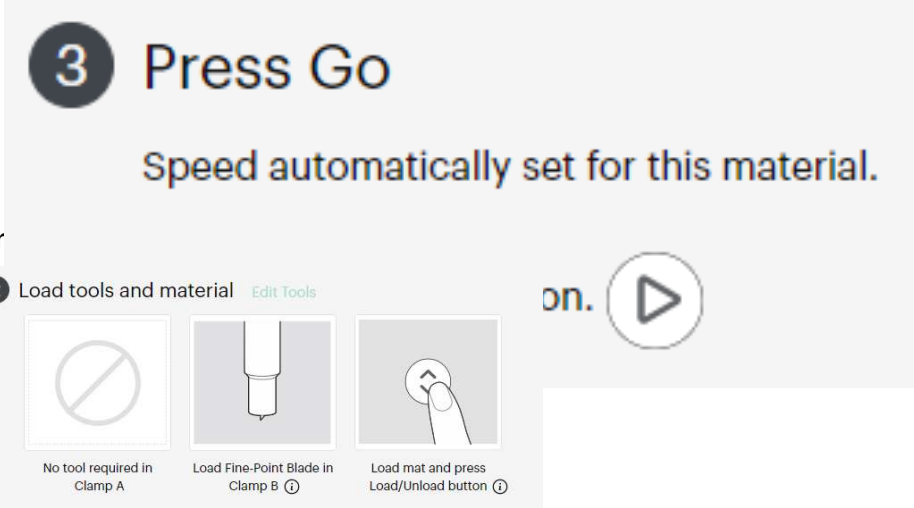
   a. If your design doesn't look the way you want, click Cancel in the bottom right and make any adjustments you need to do. One common solution to an improper layout is to Unite your objects before clicking Make It.

4.

5. On the left side are some settings options for you. You can increase the number of copies of your design it will make, and you can adjust the cutting mat size if you need. Lastly, the mirror option is necessary to turn on if you are using heat transfer vinyl, or if you intend to put this on the inside of a window facing outwards.



6. The next step is to wait for the machine to connect. Ensure the power is on.
7. You'll then be greeted with a selection of material types. If using the Maker Studio's vinyl, you will want "Permanent Vinyl" for the adhesive, and "Everyday Iron-On" for the heat transfer. If you are using something other than the vinyl we provide, you may need to explore more materials and experiment to achieve the proper finished product.
8. You'll load the cutting mat into the machine by pressing the ⌄ button. Ensure the correct blade is loaded into slot B. We have the fine point blade, deep cut blade, engraving tip, and the rotary blade. If your material requires a different blade, you may need to go back and select a new material that matches the blades we offer. (See the section on changing blades for more information.)
9. Once everything is proper



   a. If something goes wrong during the process you can press the pause button. Check the screen for further instructions on how to proceed or cancel the job.
10. Once the Cricut is finished, press the ◇ button once again to eject the cutting mat.
11. Peel the vinyl off of the cutting mat and replace the protective cover on the cutting mat.

Finishing your cut design

Weeding vinyl

After your design is cut, you'll need to weed the excess vinyl around your design.

1. Set your cut vinyl on a cutting mat and select your weeding tool. Either a weeding hook or a craft knife will do.

2. Starting at one corner and working your way at a 45 degree angle, peel away everything from the outside of your design first.

3. Then carefully remove the interior shapes until your design is completely weeded.
   a. Note: It can be helpful to take a craft knife and make some shallow relief cuts around your design to help break large portions of vinyl into smaller, easier to weed sections. Just be careful not to cut too deeply where you cut through the backing material.

Applying transfer tape

Once your design is fully weeded, you may need to apply a transfer tape. This is a large sheet of masking tape applied evenly across the entirety of a single color decal.

Note, heat transfer vinyl does not need a transfer tape applied to it.

1. Place the roll of transfer tape on the table and unroll enough to cover your design. Leave the tacky side face up.

2. Place your weeded decal face down on the tacky side of the transfer tape. Set it with just one edge down first and lower the rest of it down from one side to the other.

3. Take a squeegee and press from the center of your design outwards in all directions to remove air bubbles.

4. Cut the transfer tape with a little margin around your design to free it from the roll.

5. Flip your design over and squeegee it again from the front, once again going from the center outwards in all directions.

6. Using a knife or scissors, cut the excess transfer tape off from around your design. This can help to prevent the transfer tape from getting stuck on something else before your ready to apply your design. If applying your design immediately, you can skip this step.

Applying your decal

When you're ready to apply your decal, follow these steps.

1. Peel the transfer tape off the vinyl backing paper. Do this slowly. If a part of your decal does not come off with the transfer tape, replace the transfer tape and press it down once again to get the transfer tape to stick.

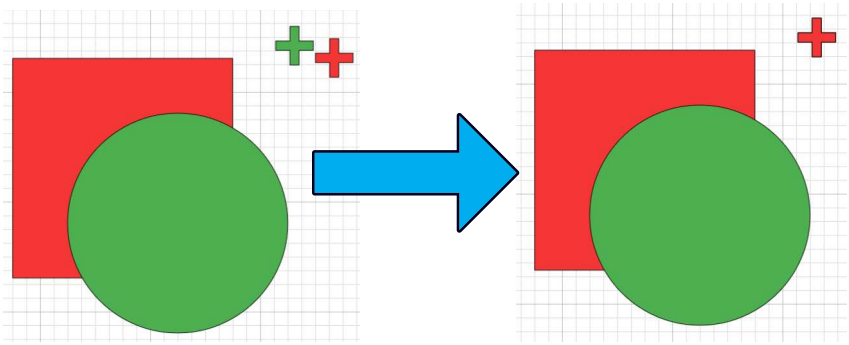
2. Place your decal with the transfer tape onto your desired surface. Once again place it starting at one edge and working your way to the other side. Press it down using a hard edged object.

3. Peel off the transfer tape from the surface. Do this slowly. If a part of your decal doesn't peel off of the transfer tape, place the transfer tape down once again and press it some more until it releases cleanly.

Multi-color Decals

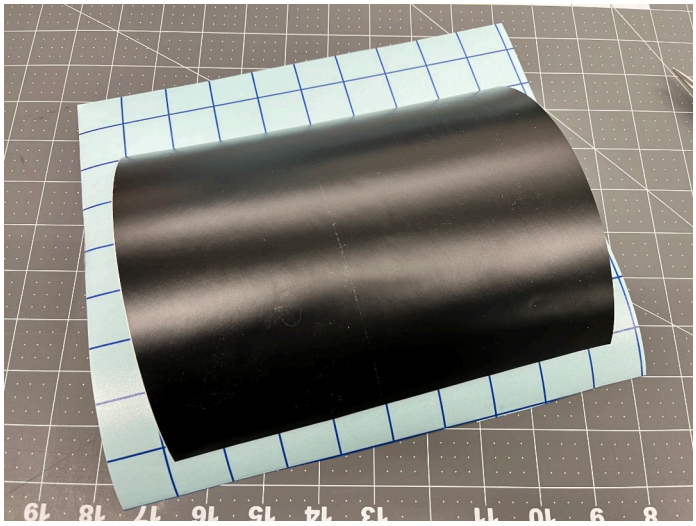
Multiple color designs are possible to do with the Cricut, but each color must be cut separately, then layered together for a finished product.

1. Put some marks in the edges of your design like a + sign, one for each color, and completely overlapping to serve as a registration mark.

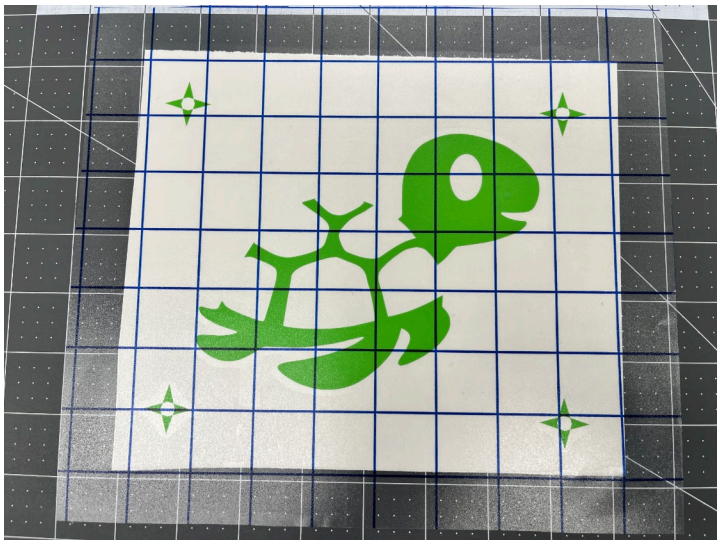


2. After each color has cut, weed them each, keeping the registration marks in the corners of each color for alignment.

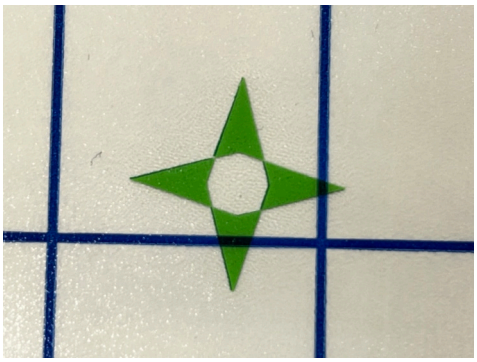
3. Cut a sheet of the clear transfer tape slightly larger than your overall design. The clear transfer tape has the gridlines printed onto the clear side.

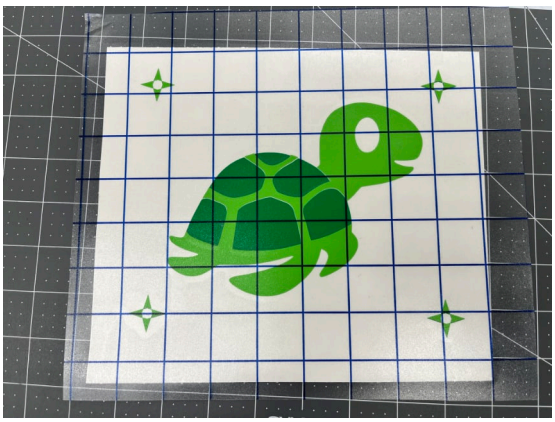


4. Selecting your "top color" as in the one that takes up the most space, place the transfer tape on it just like you would a single color design.

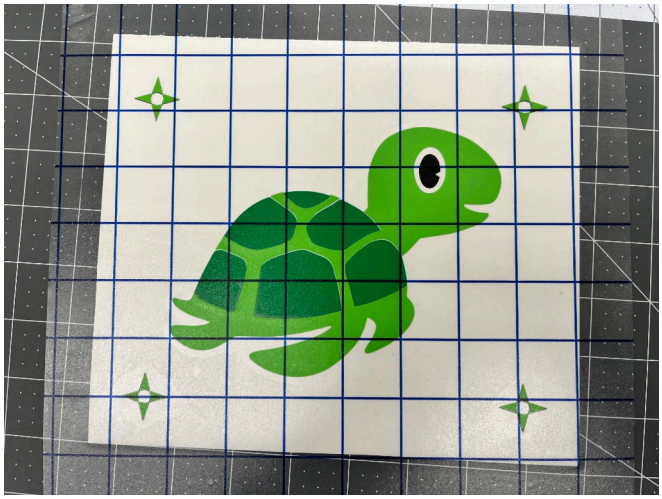


5. Peel that design off the backing paper, and then carefully apply it over your next color. Begin by aligning one set of registration marks, then a second. Lay your design down the rest of the way. If done properly, you shouldn't see more than a sliver of the second color showing underneath the top color.

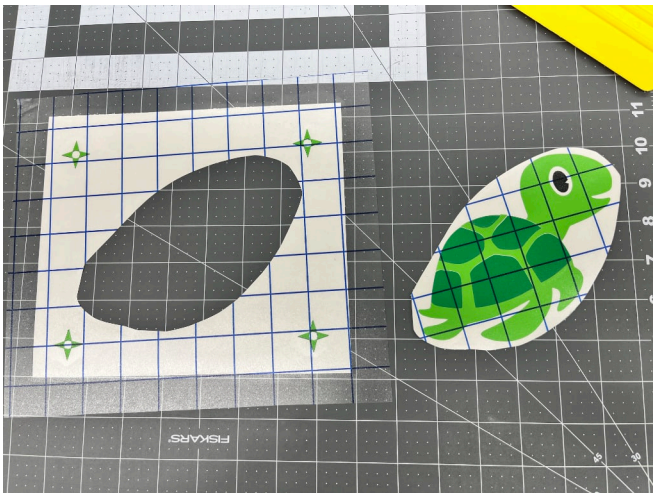




6. Repeat until all of your colors have been aligned and added to the overall design.



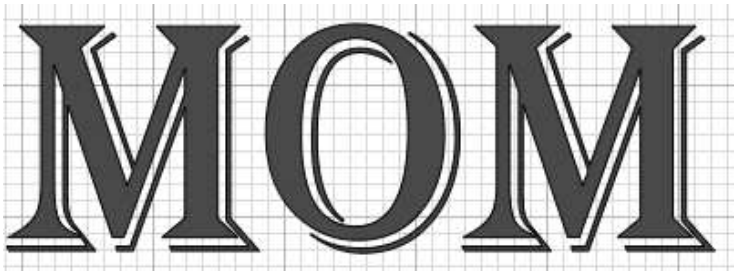
7. Cut out the design from the overall project so that you leave behind the registration marks and all the excess material.



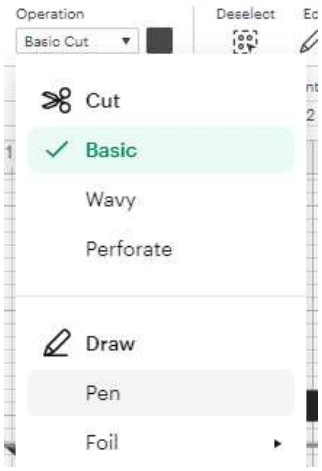
Using the Pen Feature

Cricut offers the ability to draw instead of cut by tracing a special pen along what would normally be the cut line.

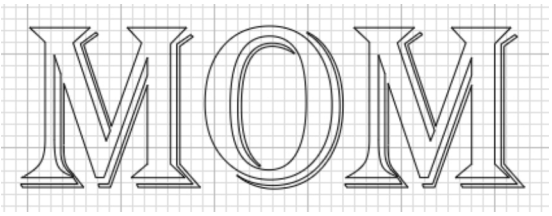
1. Create your design like you would normally, in this example we'll be using text.



2. At the top of the screen there is a drop down box for "Operation" which should say Cut by default. If you click on this you can choose Pen from the list.



3. Your design will be converted to just a pure outline shape.

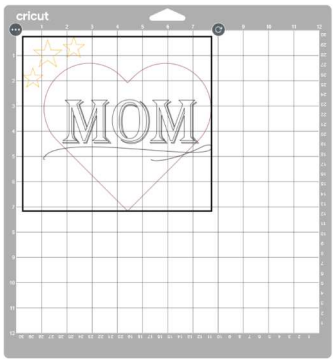


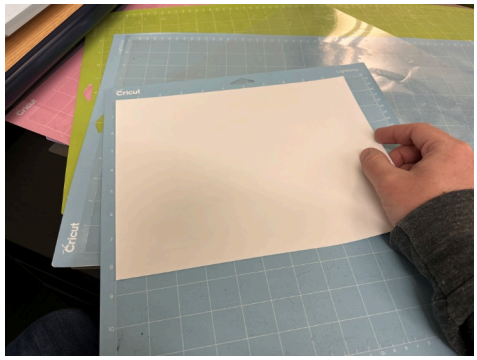
4. You can add other elements to the design just as you normally would and overlap them if you wish. You can change the color of these so that different color pens draw different elements of your design.

5. Once your design is set, select everything and choose Attach at the bottom right of the screen.

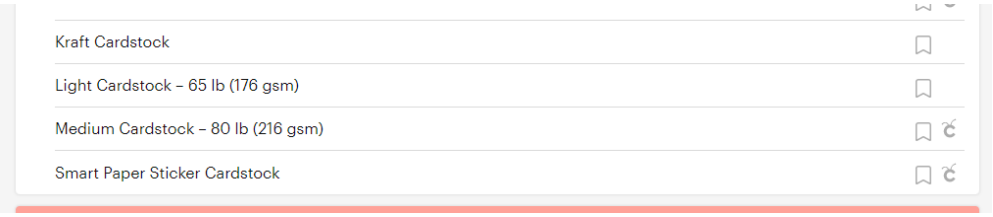
6. Then click Make.

7. It will display what your design looks like on the mat. Place your cardstock or paper on the cutting mat in the position that covers the full area of your design.

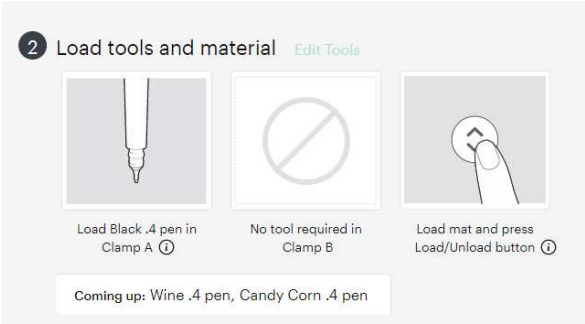




8. For the material you'll want to choose the correct cardstock. This can be done by choosing "Browse all materials" and finding the cardstock section, then choosing the most accurate option.



9. On the next screen it will tell you to install a pen in side A.



10. Open the clamp on side A.

11. Select a pen from the pack, remove the cap, and press firmly until it is inserted fully.

12. Once inserted fully you should see the tip of the pen extend past the bottom of the housing.

13. Close the clamp on side A.

14. Then press the play button on the Cricut.
15. If you have used different colors of pen, it will stop after each one and ask you to change the color. To do this, open the housing and pull the old pen out of the housing before placing a new one.
    a. Note, just like with vinyl, the color of pen used does not need to match the design. But whatever pen you put in is what color your design will be.