

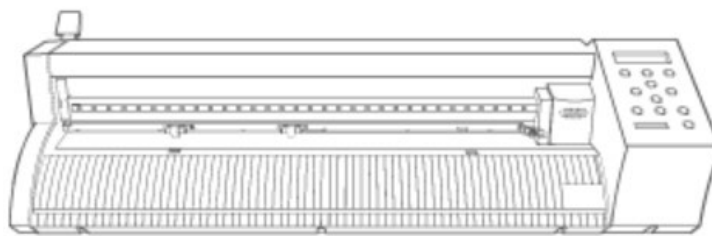
# Vinyl Cutter Basics

Inspiration Station: Geauga County Public Library's Maker Space Instructions

## Table of Contents

Introduction.....	1	Create a Cutting Project...	7
Load the Material.....	2	Save your Cut Job.....	11
Perform a Test Cut.....	5	Perform Cutting.....	11
Set the Origin.....	6	Remove the Material.....	12

## Introduction



The GS-24 CAMM-1 vinyl cutter can:

- Cut characters and shapes cleanly.
- Make one-color stickers.
- Cut perforated lines on a variety of materials.
- Handle large output designs smoothly.

### Loadable Material Sizes

Width	Length
2 – 28 inches (50 – 700 mm)	Flat Material: 4 inches (100 mm) or more
	Roll Material: No restriction

**CAUTION: Never load media that weighs over 11 lbs (5 kg)**

**Cutable material thickness:** 0.1 mm or less

**Maximum material thickness (including carrier paper):** 0.3 mm or less. Material up to 1 mm thick can be loaded depending on the blade.

### Cutable area:

Width: 22 inches (584 mm)

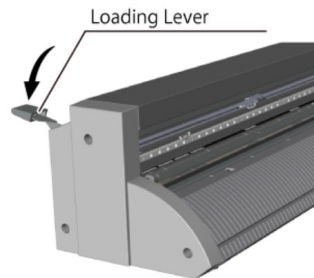
Length: 984 inches (25000 mm) or 82 feet

**Accepted File types:** BMP, JPG, JPEG, STX, AI, EPS, and PNG. JPG, JPEG, and PNG work best.

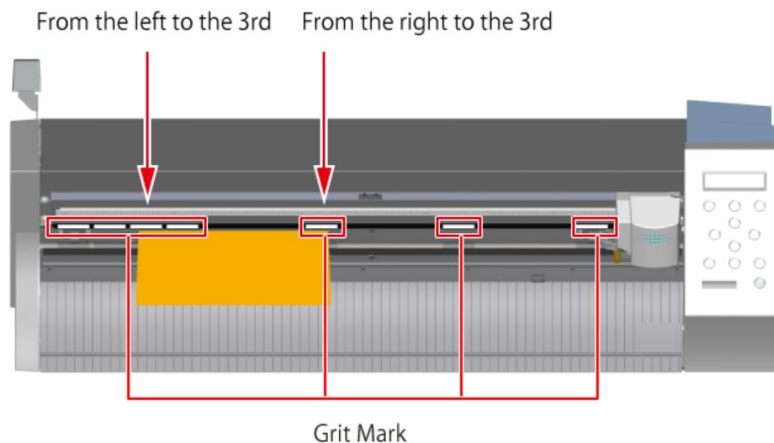
# Load the Material

Always load the material first before doing anything with the design. The machine needs to know the size of the media before the design can be cut.

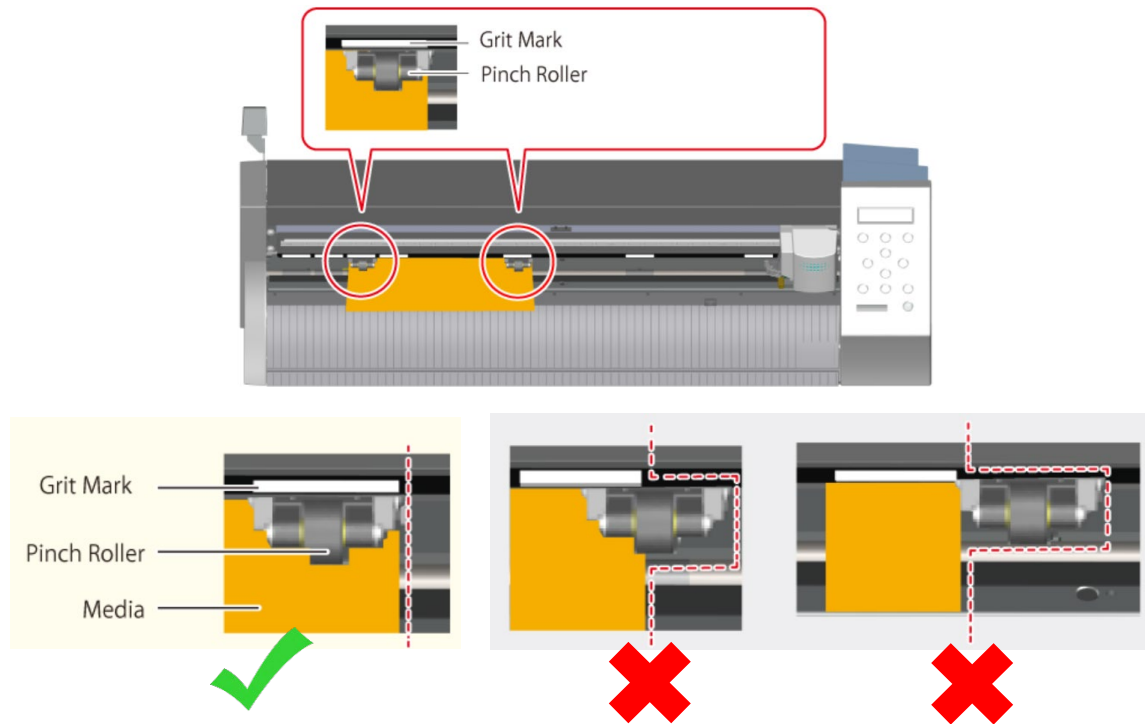
1. Lower the loading lever.



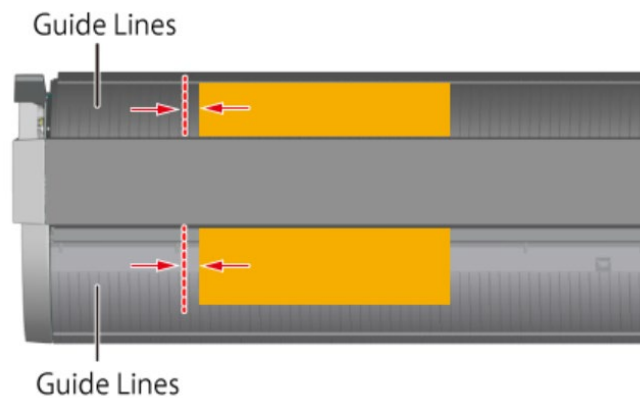
2. Load the material.
  - a. With the short edge of the material toward the front, pass the material through the machine.
  - b. If loading heat transfer vinyl, make sure the material is shiny side down. The shiny side is a heat transfer mask for transferring the design to fabric.
3. Set the material in the position shown.
  - a. The position differs according to the size of the material loaded.
  - b. Focus on the right side of the media. The left side purposefully has extra grit rollers to adapt to different sized media.



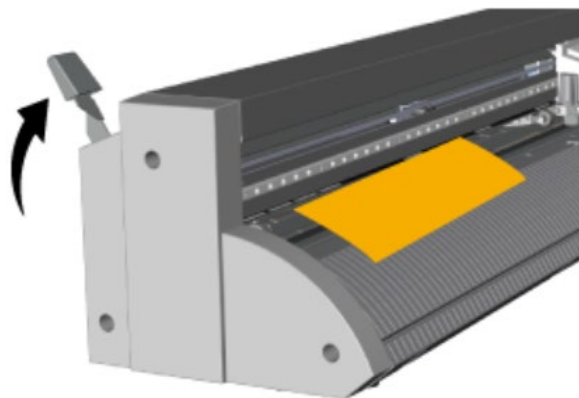
4. Move the pinch rollers to the edges of the material so that each one is within the grit marks.
  - a. The pinch rollers must not extend beyond the grit marks.



5. Align the left edge of the material so that it lies approximately parallel to the guidelines.

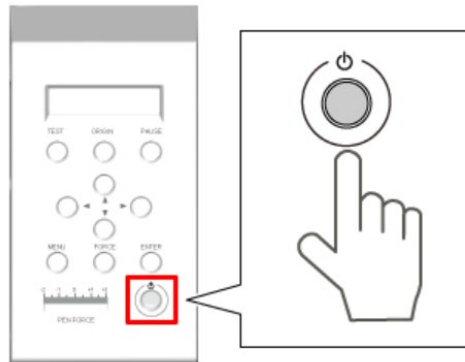


6. Raise the loading lever. The material is secured in place.

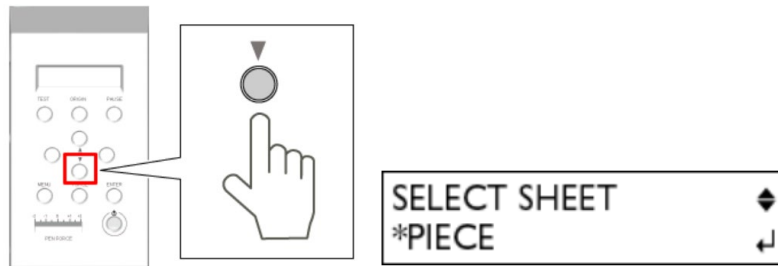


## 7. Turn on the machine

- Make sure the machine is plugged in.
- Plug the USB cord into the laptop
- Make sure the wheels are locked (at least 2 of them) to avoid shifting while cutting.
- Press the **Power** button.



## 8. Select Sheet by pressing the down arrow to the proper material (Roll, Edge, or Piece).



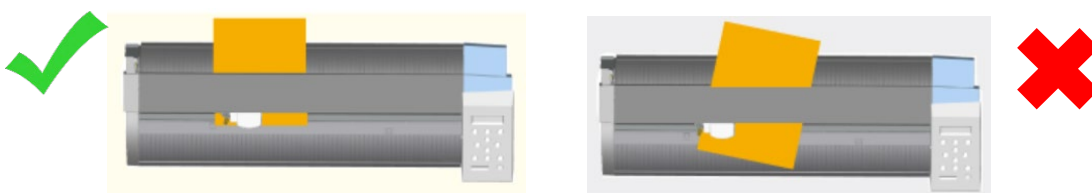
- Roll: for rolled vinyl, the machine will measure the width and not the length.
- Edge: for any type of vinyl, as it only measures the width and not the length (least popular).
- Piece: measures the width and the length. Great for small sheets of vinyl.

9. Press **Enter**.

- The cutting carriage moves to the left pinch roller position, and the material moves forward and backward.
- The cuttable width and length (if applicable) will appear on the display.

W : 180mm  
L : 250mm

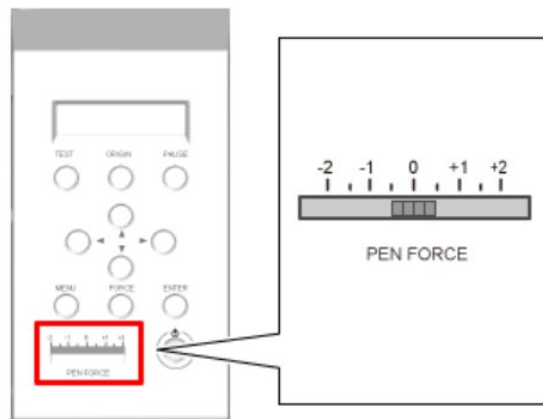
## 10. After the operation stops, check that the material has not come loose.



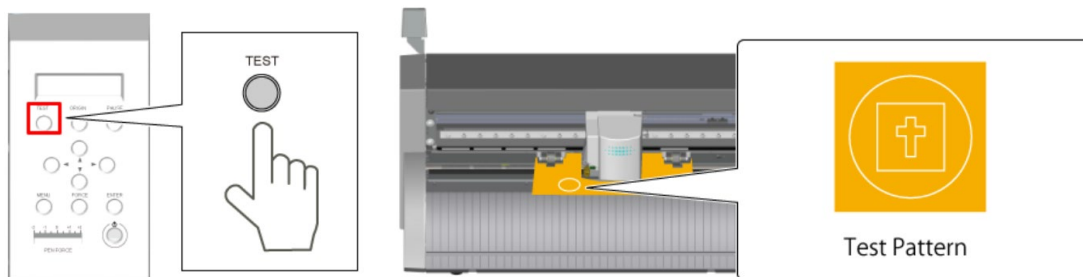
# Perform a Test Cut

Carry out a cutting test to check the quality of the material before you perform your actual project. If you already know the proper pen force for your media, you can skip to Create a Cutting Project.

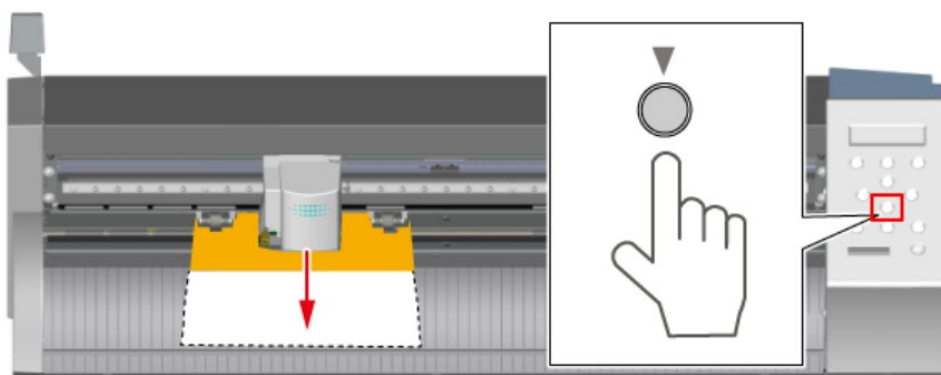
1. Check that the **Pen Force** is set in the center at **zero (0)**.



2. Hold down the **Test** button for one second or longer, until the machine starts to move.
  - a. The test pattern will cut.



3. Press the **Down** button to feed the material forward.



4. Peel off Circle 1, then peel off the Rectangle 2. You should be able to see faint traces on the material's carrier paper and all pieces should peel off easily.



5. If the cut was not clean, increase the **Pen Force**. If the cut is too distinct or too deep, decrease the **Pen Force**.

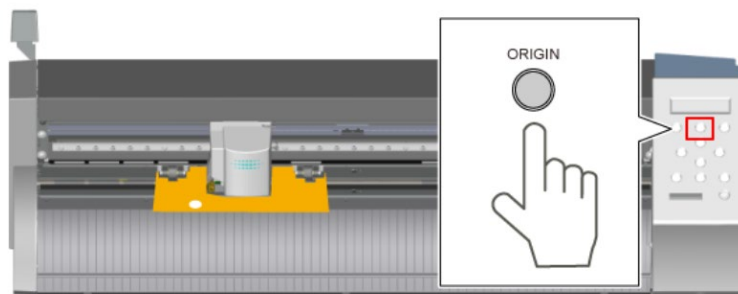
## Set the Origin

**OPTIONAL:** If using the same media for multiple projects, you can change the origin – where the blade begins cutting a job. You also may want to do this after doing a test cut. Otherwise skip to Create a Cutting Project.

1. Press the Right and Up arrow buttons to move the cutting carriage to the location you want to set as the origin.



2. Hold down the **Origin** button for at least one second.




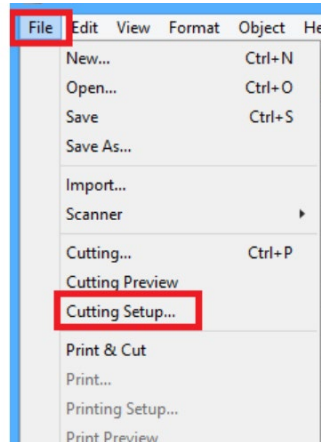
- a. The display will flash "Origin Set"

ORIGIN SET

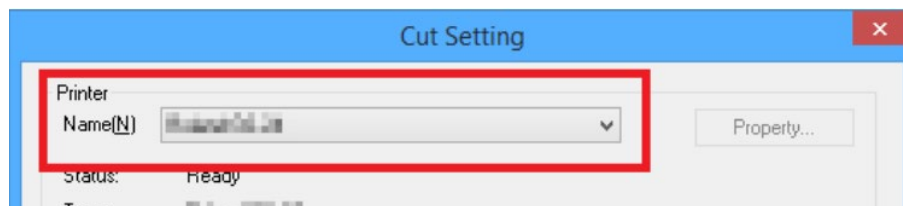
3. You are ready to cut.

# Create a Cutting Project

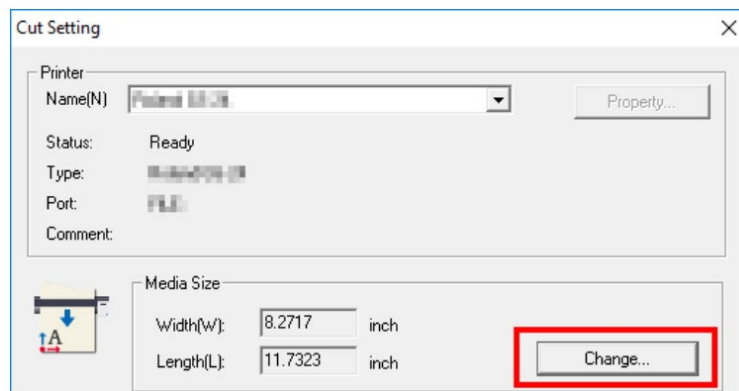
1. Click on **CutStudio** on the desktop: 
2. Click on **File** and then click **Cutting Setup**.



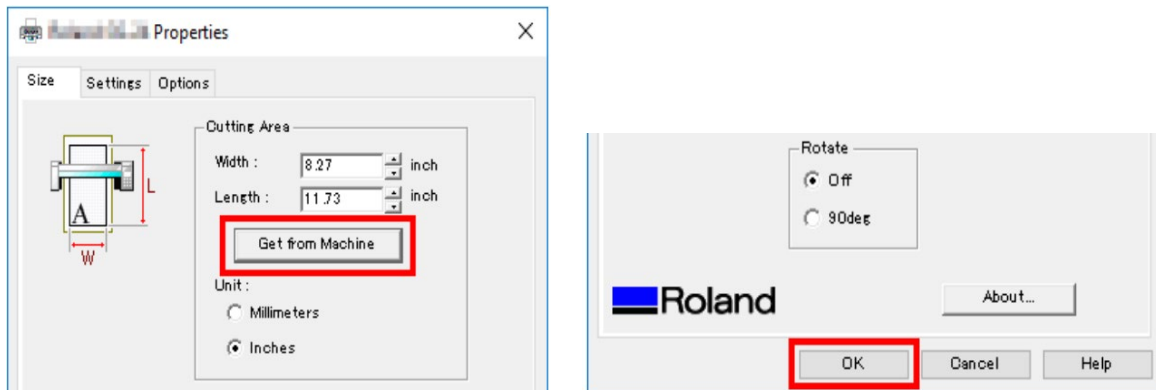
3. Make sure the name **Roland GS-24** is the chosen Printer.



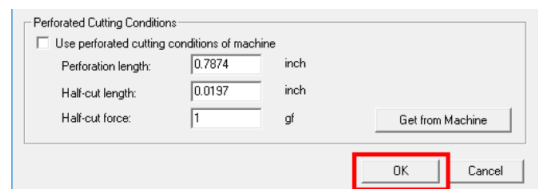
4. Under Media Size, click **Change**.



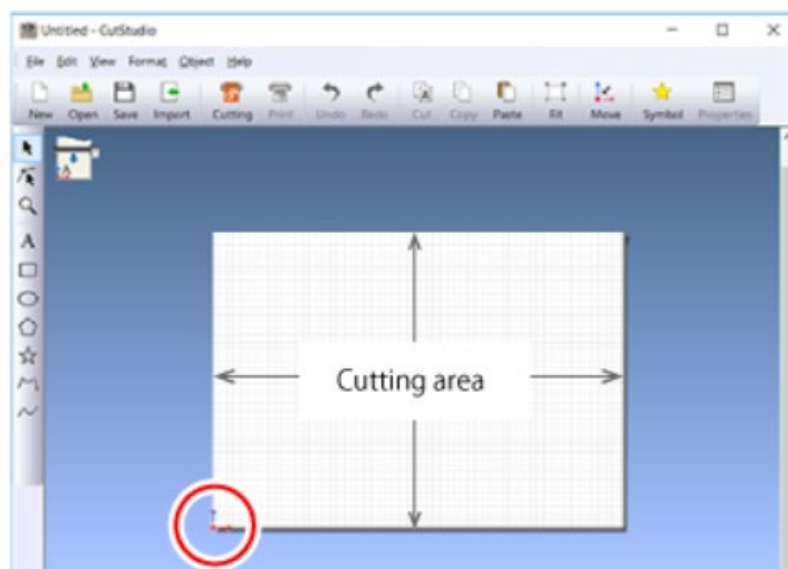
5. Click **Get from Machine** then click **OK**
  - a. The cuttable area is displayed.
  - b. This is the number that you received after loading the material.



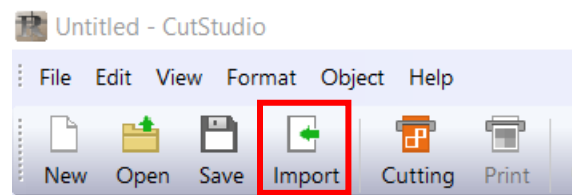
6. Click **OK** to close the Cut Setting window. The cutting area is set.



7. The origin point is in the lower left of the cutting area.



8. Create your design. Or you can open a design you already made by clicking **File** → **Open**.  
a. To upload an image, click **Import**.



b. Choose your file from your USB drive and click **Open**.



- i. **Accepted File types:** BMP, JPG, JPEG, STX, AI , EPS, and PNG. JPG, JPEG, and PNG work best.

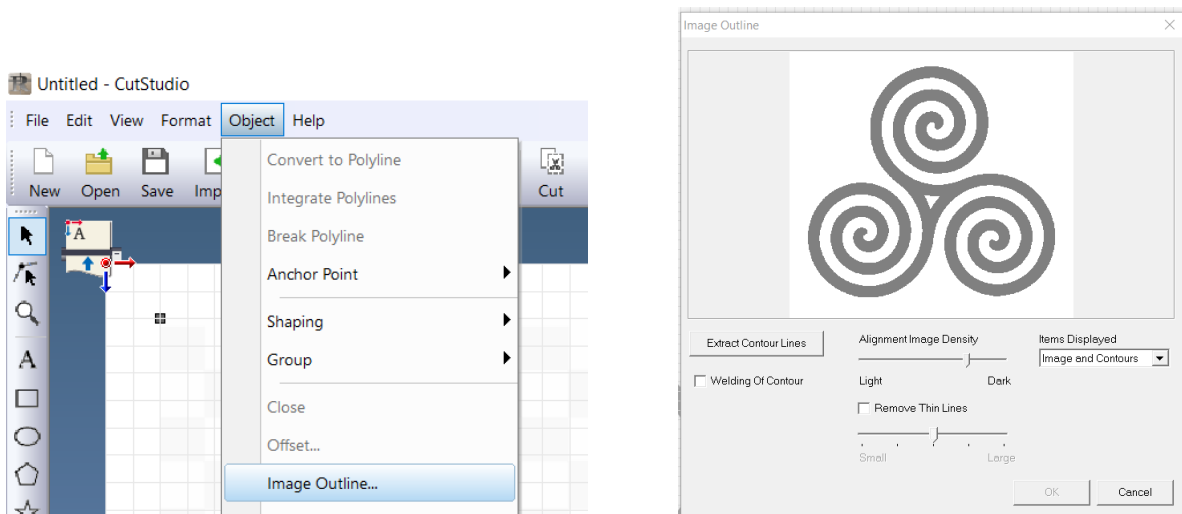


9. Your image will appear in the cut area.

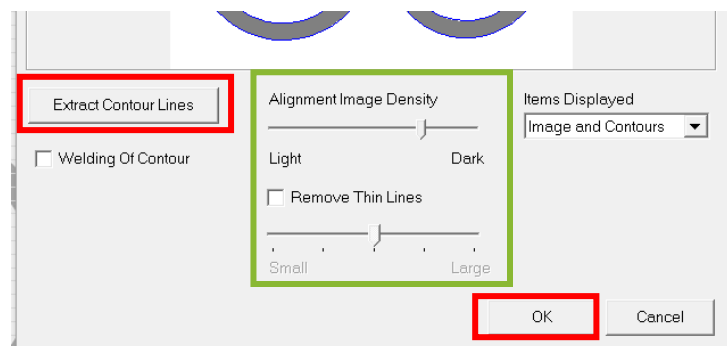


10. Change the image into a cut line by clicking **Object** then **Image Outline**.

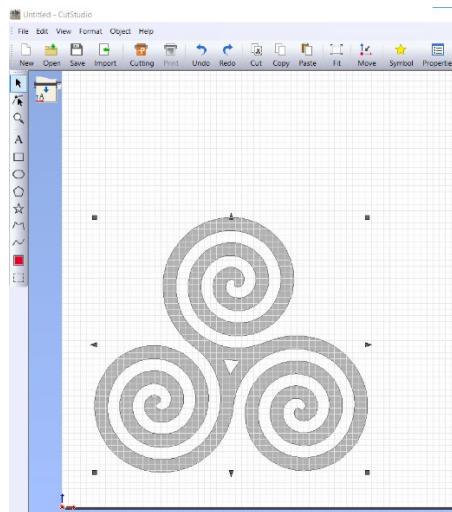
- a. A new window will open.




- b. Click **Extract Contour Lines** then click **OK**. You can edit the lines by changing the Alignment Image Density or Remove Thin Lines depending on your image.

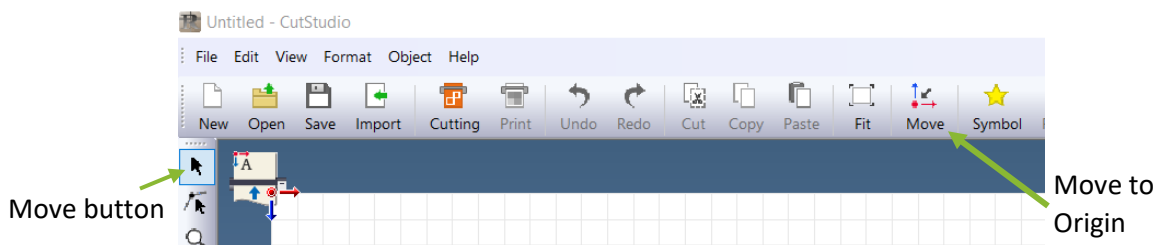


- c. There are now cut lines over your image that the vinyl cutter will follow.

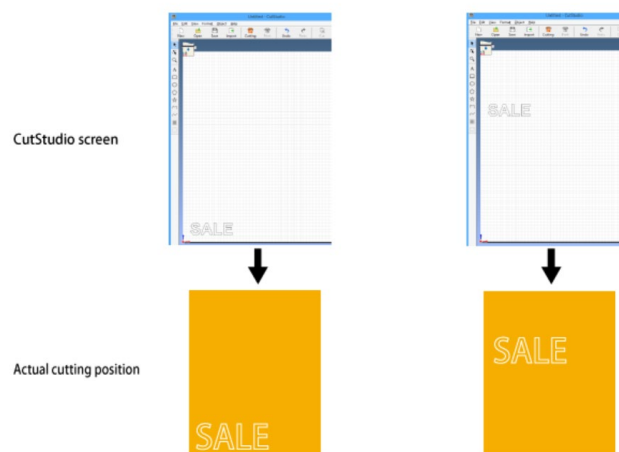


11. Click the **Move** button  to place the design in the bottom left corner near the origin.

- a. You can also click the **Move to Origin**  button.

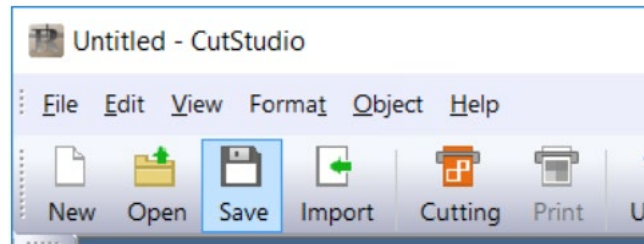


- b. Positioning the design near the bottom of the cutting area saves material.

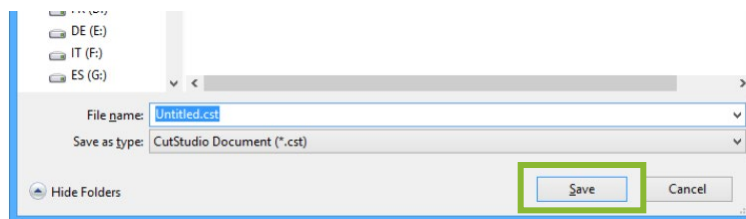


## Save your Cut Job

1. If you want to save the design for another cutting session, click the **Save** button.

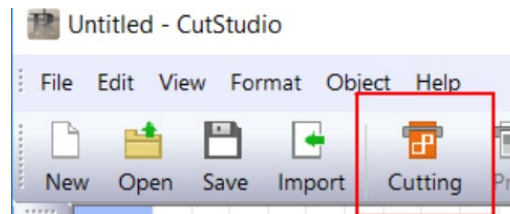


2. Select your USB drive and then click **Save**. It will save as a CutStudio document file (CST).



## Perform Cutting

1. Click the **Cutting** button.

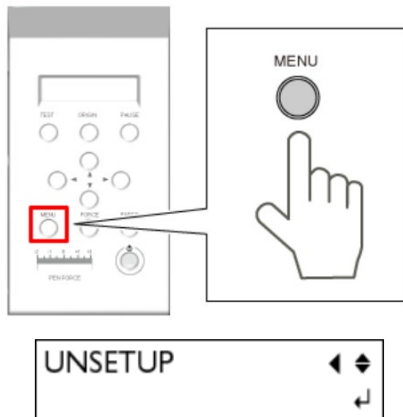


2. Check that the cutting settings fit what you want. Then click **OK**.
  - a. Cutting data is sent from the computer to the machine and cutting starts.

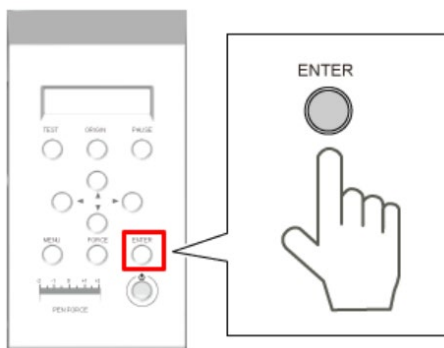


# Remove the Material

1. Press the **Menu** button several times until the display reads "Unsetup"



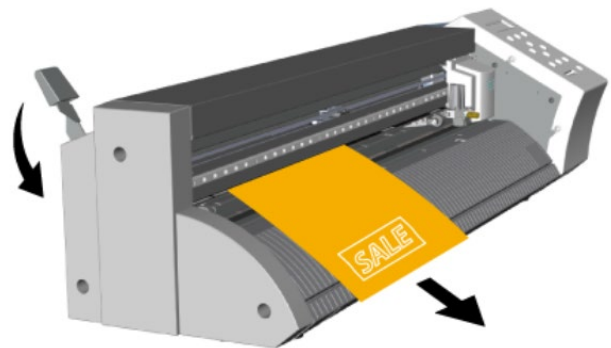
2. Press **Enter**.



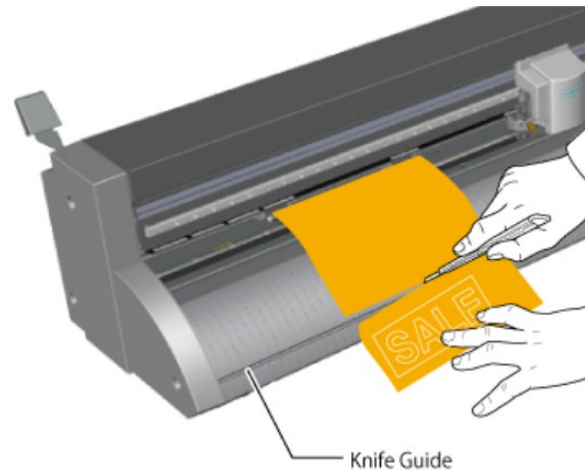
- a. The carriage returns to the home position



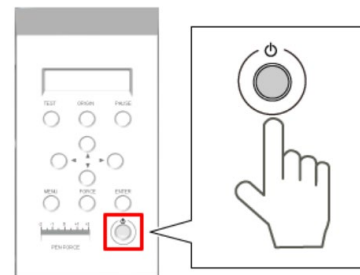
3. Lower the loading lever and remove the material.



4. To remove the cut area *only*, use a utility knife or similar tool to cut along the knife guide.



5. Turn off the machine by holding down the **Power** button.



6. Unplug the machine and place it back in its original location.