Vinyl Cutter Guide

Roland CAMM-1 GS-24

Latest Edition: July 2026

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Before You Start

What does a vinyl cutter do?

A vinyl cutter is a machine that cuts designs out of thin materials such as adhesive vinyl using a small precision blade.

Unlike a printer, **the cutter does not print colour or graphics**. Instead, it follows vector lines in a digital design and cuts along those lines to create shapes or lettering from a single colour adhesive vinyl.

The Roland CAMM-1 GS-24 works similarly to craft cutters like Cricut machines, but it is designed for professional use and can cut directly from large vinyl rolls. This allows users to create large designs such as wall graphics, signage, or window decals.

Because the cutter follows the exact vector lines in your file, your design must be prepared correctly before sending it to the machine.

What can you make with a vinyl cutter?

With a vinyl cutter you can create a variety of projects, including:

- **Vinyl Decals:** Window decals, laptop stickers, water bottle decals.
- **Wall Graphics:** Quotes, lettering, decorative shapes.
- **Signage:** Labels, directional signs, and display graphics.
- **Custom Lettering:** Names, logos, and branding for projects.
- **Stencil Templates:** Painting or craft stencils.

After cutting, the unwanted material is removed in a process called **weeding**, leaving only the final design.

What to Expect

- **Average project time:** 15–45 minutes
- **Skill level:** Beginner-friendly with patience
- **Preparation:** Designs must be vector graphics

You may need to make small adjustments to your design before cutting, especially when working with detailed shapes or text.

Software & Files

All vinyl cutter projects are prepared using *CorelDRAW* on the Makerspace computers.

CorelDRAW is used to create or edit the design. When the design is ready, the *Roland CutStudio plugin* is used to send the design to the vinyl cutter.

Your design must be set up correctly, so the machine knows what lines to cut.

Design Requirements

- Designs must be vector graphics (lines or shapes).
- Bitmap images (such as JPG or PNG files) *cannot be cut directly*.
- Text should remain as vector objects or converted to curves.
- The maximum cutting width is 22 inches. Designs must not exceed this width.

For more detail on preparing files and working with vectors, see the MakerSpace *CorelDRAW Basics and Rasters & Vectors guides.*

Supplies & Materials

Materials must be purchased from BPL. You cannot use your own materials.

The Makerspace provides adhesive vinyl in a range of colours. Vinyl is sold by the foot (length). Please check our website or ask staff for current pricing and available colours.

Note: The vinyl cutter uses pre-coloured vinyl only — it does not print. If you need a full-colour printed design, use the Vinyl Printer instead.

Safety

Although the vinyl cutter is safe when used properly, it still contains moving parts and a sharp blade.

Cut Risk

The vinyl cutter uses a **small blade mounted inside the cutting carriage**.

- Do not place your hands inside the machine while it is operating.
- Do not attempt to adjust the blade holder.
- Blade changes and machine maintenance must be performed by staff.

Getting Started

1. Prepare Your Design

Before sending your design to the cutter, confirm that:

- All artwork is complete
- The design is made of vector lines or shapes
- The design width is under 22 inches

When your design is ready, **select all objects to be cut** in CorelDRAW.

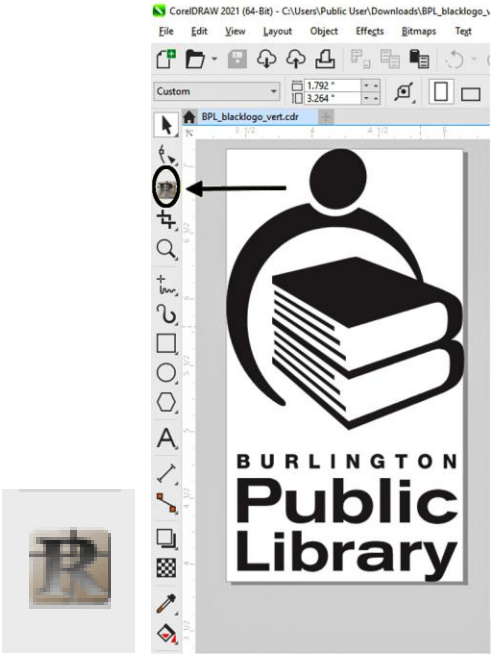
2. Load the Machine

Material must be loaded into the cutter before starting your job. To load vinyl into the cutter, **please ask staff for assistance**.

Staff will ensure the material is properly aligned and secured so the machine can cut accurately.

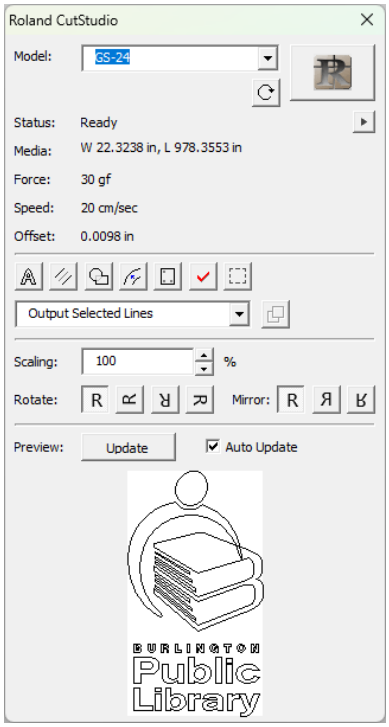
3. Send the Design to CutStudio

On the left toolbar in CorelDRAW, click the **CutStudio plugin icon**. This will open a preview window showing the elements that will be sent to the cutter.



The CutStudio plugin icon and a screenshot showing where to find it in CorelDRAW.

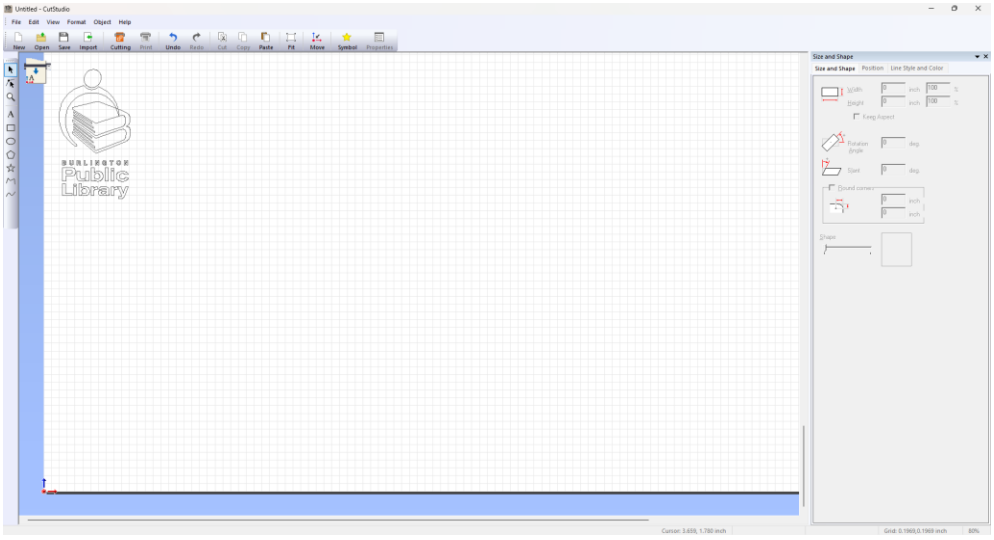
This preview confirms that the plugin has detected your vector lines correctly.



A screenshot of the preview screen.

If everything looks correct, click the **CutStudio button** in the top-right corner of the preview window. This will open the design in Roland CutStudio.

4. Prepare the Cut in CutStudio



A screenshot showing the workspace in CutStudio.

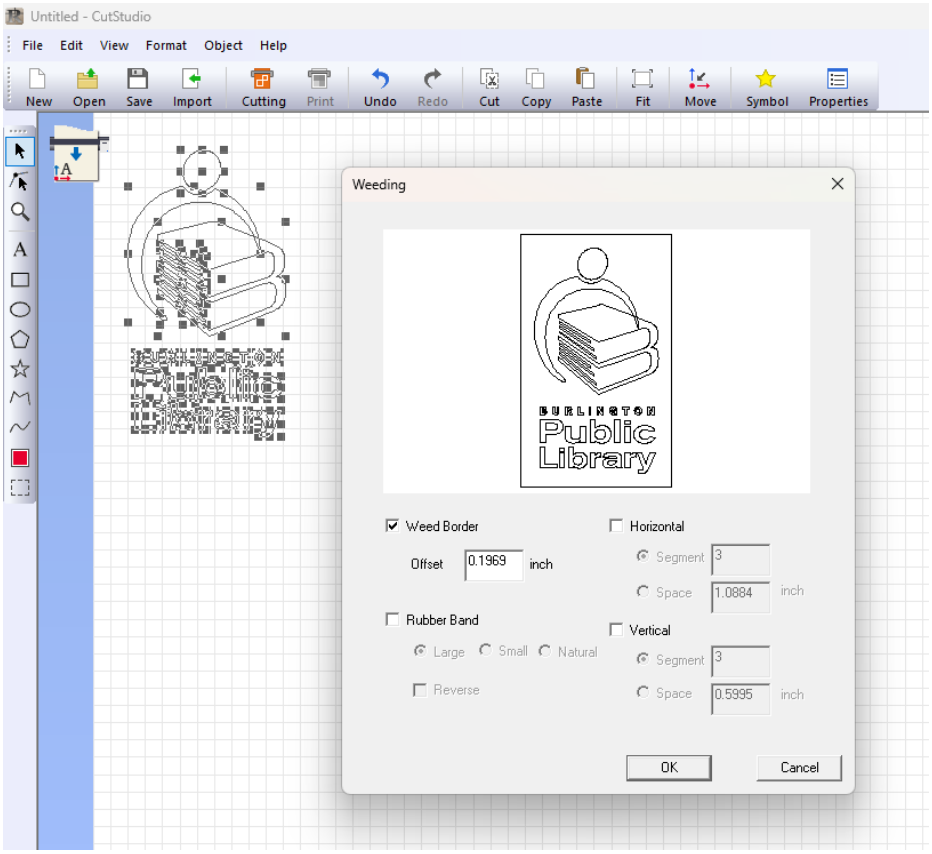
When CutStudio opens, your design will appear in the workspace. Before cutting, you may want to add **weeding lines**.

What are Weeding Lines?

Weeding lines divide large designs into smaller sections. This makes it easier to remove excess vinyl after cutting.

To add weeding lines:

1. Select your design
2. Click **Object** in the top menu
3. Select **Weeding**
4. Choose the number of lines to add



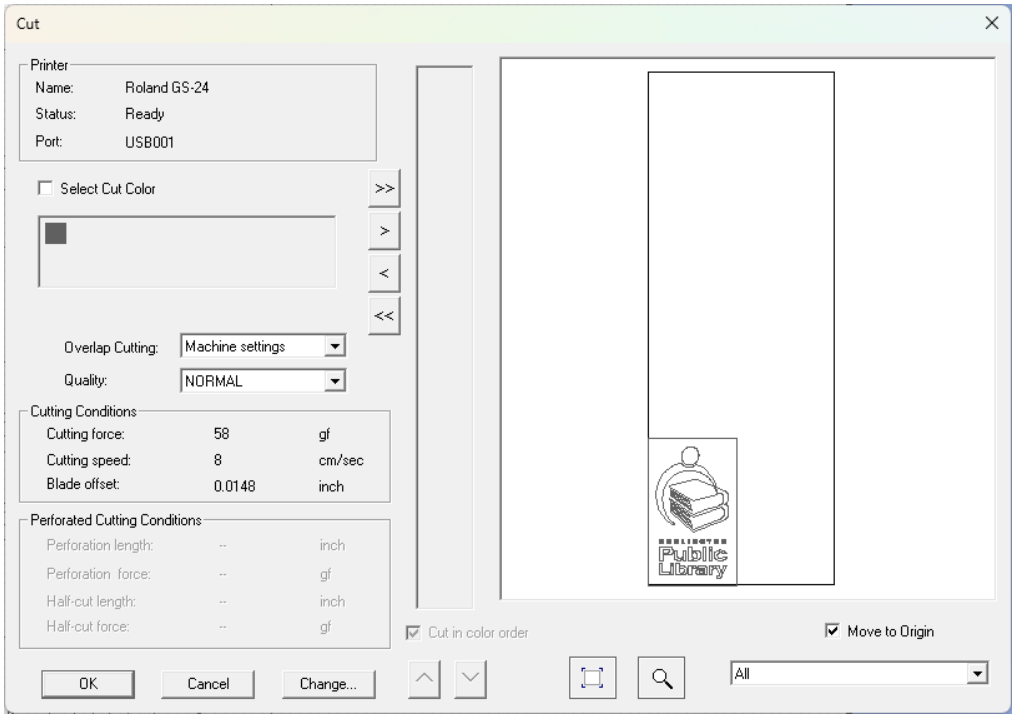
A screenshot showing how to add weeding lines.

These lines will help break up large areas of vinyl during the weeding process.

5. Send the Design to Cut

When your design is ready:

1. Click the **Cutting** button in the top menu.
2. The cutting preview window will appear.



A screenshot showing the cutting preview window.

This window shows all the lines that the machine will cut.

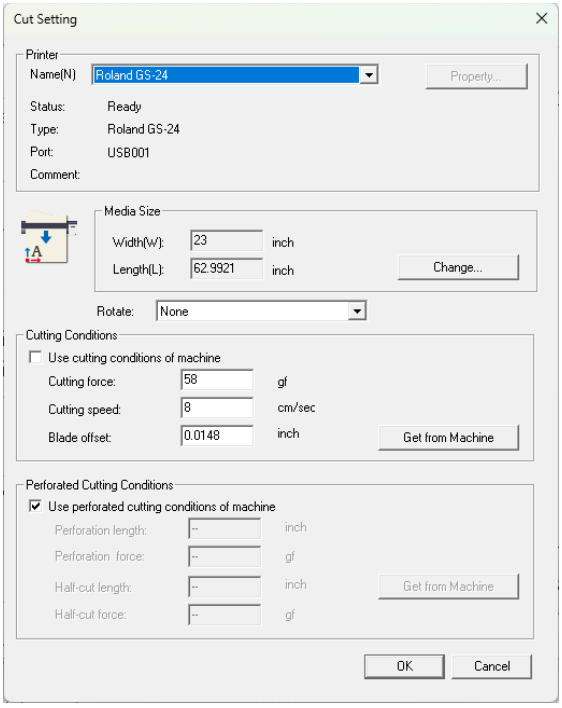
Before continuing, confirm that:

- Move to Origin is selected
- The design appears in the correct location
- The size matches your intended project

6. Sync the Machine Settings

Before starting the cut, the software must confirm the available material size.

1. Click **Change** in the cutting preview window.
2. In the settings window, click **Get from Machine**.



A screenshot showing the settings window.

This allows the software to detect the width of the vinyl currently loaded in the cutter.

Once the settings update, click **OK** to return to the cutting preview.

Double-check that your design fits within the available material area.

When ready, click **OK** to begin cutting.

Weeding

Weeding is the process of removing the unwanted vinyl from around your cut design, leaving only the shapes or lettering you want to keep. Because the vinyl cutter does not print, all designs are made from a single colour of adhesive vinyl, and weeding is how you separate your finished design from the excess material.

What You Need

- Weeding hook or pick tool (available in the MakerSpace)
- Flat, clean work surface
- Good lighting — cut lines in single-colour vinyl can be hard to see without bright, even light
- Transfer tape (if you plan to apply the design to a surface)

Before You Start

If your design is large or covers a wide area of vinyl, consider adding weeding lines before cutting. Weeding lines divide the excess vinyl into smaller sections that are much easier to peel away. You can add them in CutStudio by going to **Object → Weeding** and choosing the number of lines to add. This step is optional but highly recommended for designs larger than about 6 inches in either direction.

Step-by-Step

1. **Remove from Machine.** Once the machine finishes cutting, use the arrow keys to feed the sheet forward. Align the top of the design with the horizontal groove located at the front most edge. Carefully cut the roll with either scissors or a sharp knife by cutting along the groove. Place your cut sheet on a clean work surface.
2. **Identify the waste areas.** Look at the cut vinyl and identify which sections are *not* part of your design. These are the areas you will remove. With single-colour vinyl, the cut lines can sometimes be subtle — tilt the sheet under the light or run your finger lightly across the surface to feel where the blade has cut.
3. **Start from a corner or large waste area.** Use the weeding hook to lift a corner of the excess vinyl. Peel it away slowly at a low angle, keeping it close to the surface. Pulling straight up can lift your design along with the waste material.
4. **Use weeding lines as guides.** If you added weeding lines in CutStudio, work one section at a time. Peel the waste vinyl from one section before moving on to the next. This keeps the remaining vinyl stable and reduces the chance of accidentally pulling up part of your design.
5. **Remove interior pieces.** For cutouts inside letters or enclosed shapes (such as the inside of a letter "O", "D", or "A"), use the tip of the weeding hook to lift one edge of the small piece, then peel it away gently.
6. **Inspect the finished piece.** Once all waste material has been removed, check that the edges of your design are clean and that no small pieces of unwanted vinyl remain on the backing sheet. Only your finished design should be left.

Applying Your Design with Transfer Tape

After weeding, your design should still be on the paper backing. To move it onto a surface (such as a wall, window, laptop, or sign), you will need transfer tape.

1. Cut a piece of transfer tape slightly larger than your weeded design.
2. Lay the transfer tape over the design, sticky side down. Use a squeegee, ruler edge, or your hand to smooth it firmly, pressing out any air bubbles.

3. Gently peel the backing sheet away. The vinyl design should lift off with the transfer tape. If any part stays on the backing, press the tape back down over that area and smooth again before peeling.
4. Position the transfer tape with the design onto your target surface. Press it down firmly and smooth from the centre outward to avoid air bubbles.
5. Slowly peel the transfer tape away at a low angle, leaving only the vinyl design adhered to the surface.
6. If any edges or corners lift with the tape, press the tape back down over that spot, smooth firmly, and peel again more slowly.

Tips for Easier Weeding

- **Add weeding lines for large designs.** This is the single most effective way to make weeding easier. Use **Object** → **Weeding** in CutStudio before cutting.
- **Avoid very thin lines or tiny text.** Designs with extremely fine details (below about 5 pt font or hairline-width elements) are much harder to weed and may tear or lift during removal.
- **Check the blade pressure.** If vinyl is difficult to peel away from the backing, the blade may not have cut deep enough. If the blade cut through the backing paper, the pressure was too high. Ask staff to adjust blade settings for your next cut.
- **Start with simple shapes.** If this is your first time weeding, begin with a design that has large, open shapes and minimal interior cutouts. Detailed lettering and intricate shapes become easier with practice.
- **Work slowly and patiently.** Rushing is the most common cause of accidentally pulling up part of a design. If a section resists, stop and reposition your hook rather than forcing it.

Tips for Success

- **Start with simple designs.** Large shapes and basic lettering are easiest for beginners.
- **Avoid extremely small details.** Thin or tiny shapes may be difficult to weed or cut.
- **Use weeding lines for large designs.** This can make removing excess vinyl much easier.
- **Test small sections first.** Testing a small cut can help confirm the settings are correct.

Common Issues & Quick Fixes

Problem	What to Do
Nothing happens when sending the file	Make sure the CutStudio plugin was used to send the design. Files must go through CutStudio, not directly from CorelDRAW.
Machine cuts the wrong size	Click Get from Machine in the CutStudio cutting preview to sync the media width. This ensures the software knows the actual vinyl loaded.
Vinyl is difficult to weed	Add weeding lines to large designs (Object → Weeding in CutStudio). You can also try simplifying the design by removing very small or thin elements.
Design only partially cut	Check that the material is properly loaded and aligned in the machine. Ask staff to verify the vinyl is seated correctly on the rollers.
Blade is not cutting through the vinyl	The blade pressure or depth may need adjusting. Ask staff — blade adjustments are a staff-only task.
Cut lines appear jagged or rough	The blade may be dull or the design may contain very fine detail that exceeds the blade's precision. Try simplifying the design or ask staff to check the blade.

If the issue persists after trying these steps, ask staff for help.

Need More Help?

If you need additional support:

- Ask Makerspace staff for assistance at All Levels Access hours.
- Refer to official Roland documentation
- Check the Makerspace guides for Vectors and CorelDRAW Basics.