



# GraphTec Vinyl Cutter Certification



# Vinyl Cutter Overview

## GraphTec CE6000-60 Vinyl Cutter

- Cuts up to 24" x 16.4'
- Contour Cut Pre-Printed Graphics

Today we'll answer these questions

- What's it for?
- What are the options for WLS cutter use?
- How does it work?
- How do I use the software?
- Where do I get help and support?



# What's it for?

## Text or Graphics

- Functional
- Decorative
- Labels and directions
- Decals
- Stencils
  - Paint mask
  - Glass etch mask
- Colors are cut singly and then layered
- Print on vinyl, then contour cut



# What are the options for WLS cutter use?

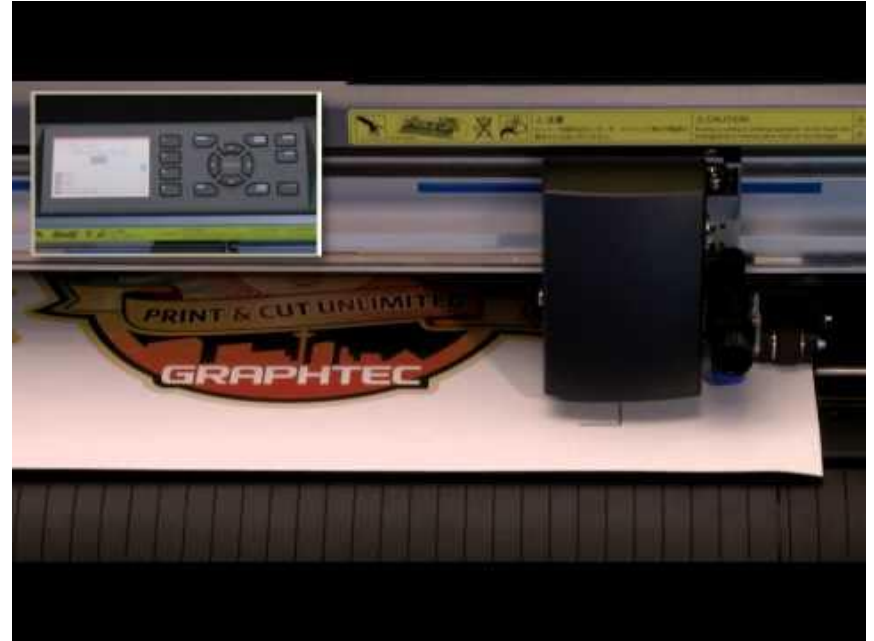
Libraries can

- make an appointment to use the cutter and WLS removable indoor vinyl for \$4.00/linear foot
- make an appointment and use the cutter and bring their own supplies. Amazon has vinyl in a variety of colors
- place requests for WLS staff to cut vinyl signage or decals for \$10.00/linear foot (24" wide)
- Request through the help desk or contact Allison Midgley

Full details on the [IT Wiki Vinyl Cutter Information](#)

# How does it work? Step 1: Setup

1. Turn on the cutter
2. Load vinyl
  - Load roll vinyl from the back with the loose end off the top of the roll
  - Line up the front edge of the vinyl with the grooves closest to the cutter bar
  - Adjust the push rollers if needed, ½" from side edge of the media
  - Hold the roll while you pull gently but firmly taut
  - Lift the media set lever
  - Choose 2. Roll, current position. The
3. Turn on the laptop and log in.  
Connect to wifi if needed.



# How do I use the GraphTec Studio software?

## Preview Area Elements

There are four different elements to the Preview Area: the Media Page, the Grey Holding Area, Open Job Tabs, and the Rulers.

## Media Workspace and the Grey Holding Area

The white area is the **Media Page**. It is the active document area representing either a drawing area to create designs, or the media being used to cut. When the Preview Area is in Design mode, this area may be used to place or draw objects. Objects placed or drawn outside the Media Page, the grey area, will not be output to the printer, nor the cutter. They are 'invisible' when it is time to output the job. This is convenient when you need to place objects off to the side temporarily to use later for design development.

## Rulers

When using the Graphtec Studio Pro, rulers will be located at the top and right side of the Preview Area. They provide size orientation to the design. The darkened grey area within the rulers represent the size of the Media Page.

## Open Jobs Tabs

At the bottom of the Preview Area are tabs representing the jobs that are currently open.

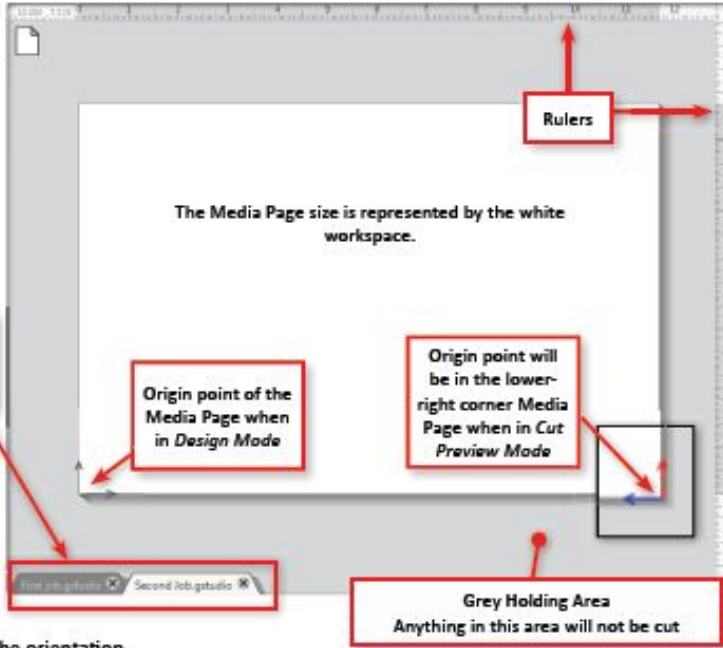


Open Job Tabs

Because several documents or files can be open at one time, this makes it convenient to switch between documents.

## Job Origin

When the Preview Area is in Design mode, the origin point with the two arrows are at the lower-left corner of the Media Page. If the Preview window is in Cutting Preview mode, then the orientation arrows will change to the lower-right hand side of the Media Page.



# How do I use the GraphTec Studio software?

## Tool Bars

Buttons are grouped by similar functionality.

### General File Management

This toolbar along the top left-hand side of the screen is for general file management functions, such as opening, saving, and sending documents to a printer or a Graphtec cutter.



### Standard Editing Tools

This toolbar along the top left-hand side of the screen is for basic copy/paste/cut and undo/redo actions commonly found in many programs.



### Zooming Tools

This toolbar along the top left-hand side of the screen is for basic zoom-in or zoom-out functions to view parts of the document from a closer perspective or at a more distant range.



### Style Tools

This toolbar along the top center of the screen is for changing styles of objects such as filling images, altering lines, adding drop shadows (pro only), and adjusting text attributes.

Clicking on any one of these will open their options in the side panel.



### Maneuvering Tools

This toolbar next to the Style toolbar, is for repositioning, rotating, resizing, and shearing. Clicking on any one of these will open the options for that tool in the side panel.



### Manipulation Tools

This toolbar at the top right of the screen next to the Maneuvering tools are for aligning, replicating, and nesting. Clicking on any one of these will open the options for that tool in the side panel.



### Reshaping Tools

This toolbar is for reshaping, outline offset, and tracing objects. Reshaping would include welding, subtracting, trimming, and cropping your shapes.



### Quick Edit Tools

This tool set is for quick editing. The tool set contains grouping and selecting images, duplicating and deleting items, object order (such as bringing images to the forefront or sending them to the back behind other images), quick welding and outlining, and object lock/unlock.



### Page Setup

These two buttons are for the page size and grid settings.



### Cutting Preparation Tools

This tool set is for preparing the job design for cutting such as tiling, registration mark settings, weed border and more. The first three will set the Preview Area mode to Design, whereas the last five buttons will set it to the Cut Preview mode.



# How does it work? Step 2: GraphTec Studio

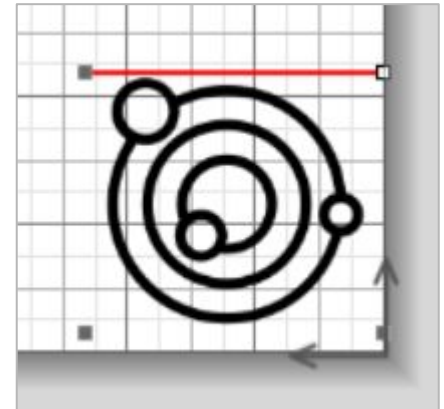
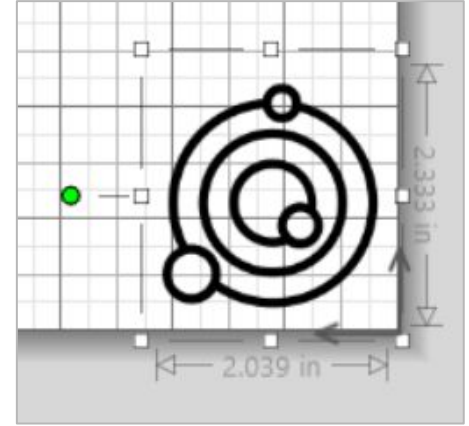
After the vinyl is loaded

1. Open GraphTec Studio
2. In the Display or New Document,  
Set the page size to match the media
  - **For roll media, use the poll size**  
or
  - Open roll-layout.gstudio  
or
  - Set size to 23.023x196.850
3. Go to View > Rotate > 270 degrees
  - This will line up the work space and the Finish preview
  - Zoom in and scroll to see the arrows in the bottom right corner. This is where you will align your graphics or text.



# How does it work? Step 3A: Add Graphics

1. Import or copy/paste a graphic into the media workspace
  2. Click on the graphic
    - Dimensions display on the outside edge of the graphic
    - Click and drag the graphic to move it
    - Click and drag a corner or side “handle” to resize
    - Click and drag the green circle to rotate
  3. Double-click the graphic and drag the corners to crop
  4. Move the graphic to the arrows at the bottom right corner of the media workspace
  5. Right-click or use the Object menu for more options
- \*\*see below\*\***



# How do I Create a Graphic in GraphTec?

## Creating a New Drawing



To start a new drawing document, either select New from the File pull down menu, or click the New tool icon. This

will open the new document window with different options for the new drawing such as the Media Page, the orientation of portrait or landscape, and whether registration marks should be placed on the corners of the Media Page. Keep in mind that this only applies to the Design mode.



Options for a New Drawing



## Drawing Tools

The group of tools along the left-hand side of the screen are the Drawing tools. These tools range from selecting objects, drawing object shapes, lines, and arcs, to creating text directly into your Preview Area.

There are editing tools, such as an eraser tool, as well as a knife tool for slicing objects.

Some tools will have options that will display in the side panel for adjusting the shape.

# How do I Align?

- Go to Object > Align

## Aligning Objects

Multiple objects can be aligned in relation to each other. To align objects:

1. Click on the Align tool icon to open the Align options in the side panel.
2. Select two or more objects to be aligned.
3. Select one of the options in the side panel of how the objects are to be aligned.

Objects are aligned to the area they reside in. For instance, Align Left will align all the selected objects to the left-most point of the selected objects. Align Bottom will align all the selected objects to the bottom point of the selected objects, and so forth. Below are diagrams of how each alignment type affects the selected objects.

## Center to Page

This option, which is the bottom choice, will move the select objects as a group to the center of the media page, in other words, keeping their positions relative to each other intact.

Objects in their original positions



Center	Align Left	Align Center	Align Right	Align Top	Align Middle	Align Bottom
Objects are aligned to the center of the selected objects	Objects are aligned to the left-most point of the selected object area	Objects are aligned to the vertical center point of the selected objects	Objects are aligned to the right-most point of the selected objects	Objects are aligned to the top point of the selected objects	Objects are aligned to the middle point of the selected objects	Objects are aligned to the bottom point of the selected objects

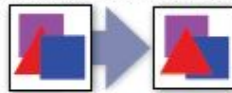
# How do I arrange shapes?

- Select an object
- Go to Object > Arrange

## Editing Objects, continued

### Arranging Object Order

As multiple objects are placed on the Preview Area, they may overlap each other. Whether an object or a shape is in front and or the back of the other shapes is called arranging the object order. This becomes more apparent when using filled shapes. There are several examples of how Object order or arrangement works. In these examples, notice how the red triangle is affected by its 'level' in the order. There are four choices of rearranging the order along with the keyboard shortcuts, using combinations of the Control, Shift, and bracket key.



**Bring to Front**  
(PC) Ctrl+Shift+]   
(Mac) Cmd+Shift+]   
The red triangle is brought in front of the other objects



**Send to Back**  
(PC) Ctrl+Shift+[   
(Mac) Cmd+Shift+[   
The red triangle is sent to the back of the other objects.



**Bring Forward**  
(PC) Ctrl+]   
(Mac) Cmd+]   
The red triangle is brought forward one level.



**Send Backward**  
(PC) Ctrl+[   
(Mac) Cmd+[   
The red triangle is sent back one level.

Back is referred to the direction of the background. Front is coming toward you.

There are several methods for changing the order.

1. First click on the objects to be re-arranged.
2. Select the order in which the object is to be arranged. This can be done by:
  - Clicking on the Object pull down menu, select Arrange, and then select one of the four options.
  - Right click on an object, and from the pull down list select one of the last four options.
  - In the toolbar, the Quick Set buttons on the top left-hand side offer two choices:



Object pull down menu > Arrange menu



Right click on an object and this pull down menu appears. At the bottom are the four choices



Bring to Front



Send to Back

# How do I change spacing?

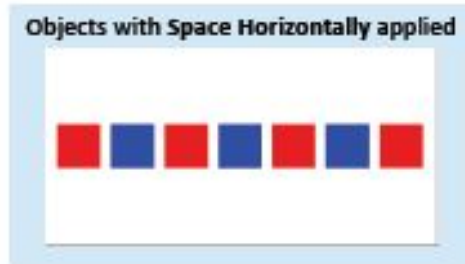
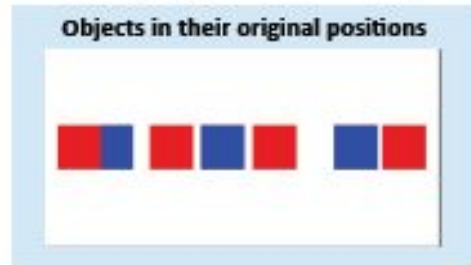
- Select the objects
- Go to Object>Spacing

## Editing Objects, continued

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### Object Spacing

In the Alignment options are the spacing selections. Spacing will distribute selected objects, spacing them evenly using the outer most objects as the boundaries.



Alignment and Spacing can all be applied by clicking on the Object pull down menu, selecting Align, and then choosing the alignment or spacing options available

#### Objects in their original positions

Space 1  
Space 2

Space 3  
Space 4  
Space 5

Space 6

#### Objects with Space Vertically applied

Space 1  
Space 2

Space 3  
Space 4

Space 5  
Space 6

# How does it work? Step 3B: Add Text

1. Move text to the arrows at the bottom right corner of the media workspace
2. For best cutting results, an object's fill color and line color should match
3. In the Text Setup Tool, choose a font and size
4. Set the Line Color and the Fill Color to black
5. In the left-hand Toolbox, choose the Text Tool. Click in the workspace and type the text.
6. When finished, click in a blank space.
7. To make adjustments, click once to edit the graphic. Click twice to edit the text itself.

## To Change an Object's Line Color:



1. Select an object or objects.
2. Open the Line Color side panel by clicking on the Line Color tool icon.
3. This will open the side panel with a color chart as shown on the right.
4. Clicking on any color will change the line color of selected objects.


## To Change the Fill Color



1. Select the object or objects.
2. Open the Fill Color side panel by clicking on the Fill Color tool icon.
3. This will open the side panel with a color chart similar to the line palette on the right.
4. Clicking on any color will change the fill color of selected objects.

# How do I create text? More details

## Creating Text

 Creating text in Graphtec Studio is very similar to using a word processor. It gives you access to fonts and styles that are a part of your system, as well as other features such as character and line spacing.

### Steps to Creating Text:

1. Click on the text tool located on the left-hand side of the software screen. This will display the text settings in the side panel, where the font, style, and other settings can be selected for your text.
2. Click on the Preview Area.
3. A red blinking cursor will appear.
4. Start typing.



THIS IS A TEXT BOX

To exit out of the text editing mode, click anywhere outside the text box which is represented by a thin green outline.

### The Text Box

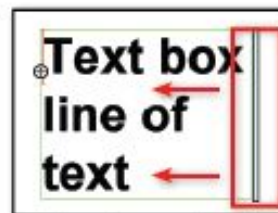
When typing in text, it is very similar to typing in a word processor:

- Press Enter to add another line of text.
- Hit Backspace to delete the last character. Hit the Delete key to remove a character to the right of the cursor.
- To insert text, place the mouse pointer at the insertion spot. This can be done by either pressing the arrow keys to position the cursor, or clicking between two letters where you want to insert text.

### Adjusting the Text Box

The Control Bar at the very right of the text adjusts the Text box's width. As the Control Bar is moved left and right, the text wrap will adjust, moving whole words to the next line. When the bar is moved to the right, this expands the text box and will adjust the text wrapping accordingly.

At the lower left corner of the Text box is a Control Handle for moving the text. If it is near a shape path, it will snap the text so that it will place the text onto the path of the shape. See [Placing Text on Shapes and Paths](#).



When the Control Bar is moved it will adjust the text wrapping



Control handle for moving the text

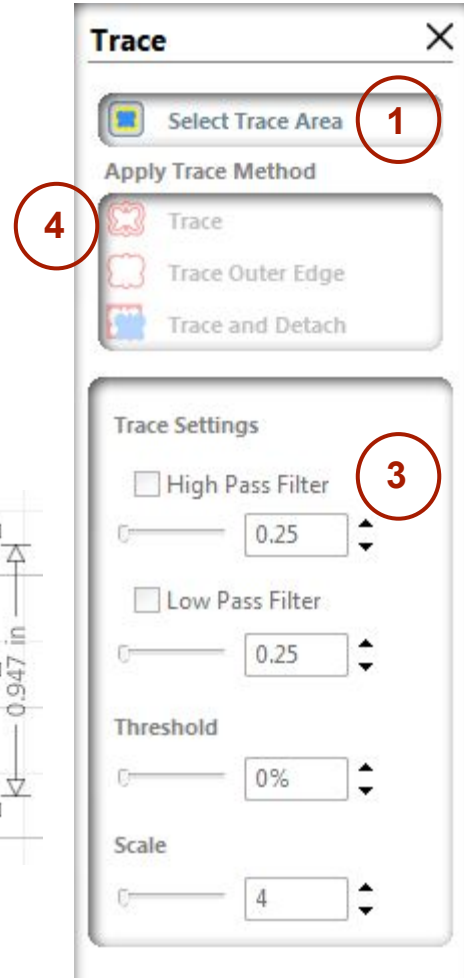
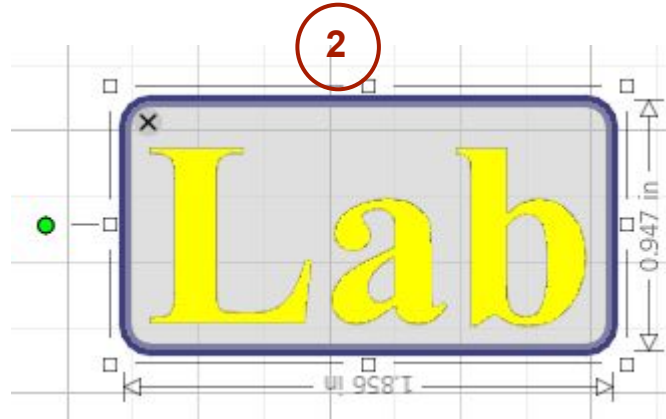
Control Bar adjusts the width of the text box and the wrapping

# How does it work? Step 4: Set Trace

1. Click Select Trace Area
2. Select the objects
3. Deselect High Pass Filter  
Cuts will appear on EITHER edge of a marked yellow area
4. Click Trace

**Be sure there is only ONE trace when you open in Finish Preview.**

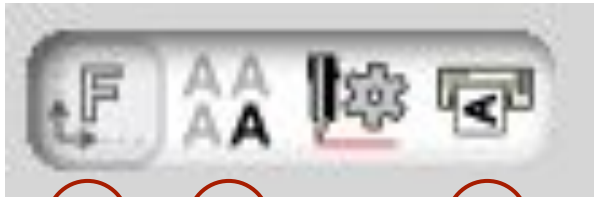
If you click the trace button more than once, be sure to delete any traces that you don't want or the machine will cut them.





# How does it work? Step 5: Preview and Cut

- A. Click Finish Preview
- B. Choose multiples by
  - a. Row
  - b. Column
- C. Open the cutters window
  - a. Wait for Status Ready
  - b. Verify condition 1 is set
  - c. Click Send to Cutter



## Cutting a Design

### Quick Steps to Cutting a Design

To simply cut a design do the following:

1. Click on the Cutters tool icon. In the side panel, the intended cutter (generally the default cutter) should be in a **READY** Status. If not, check to see if the cutter is turned on and connected. (See the Graphtec Cutting Manual).
2. Click on **Conditions** for the intended cutter in the side panel. Set the conditions that would be appropriate for the loaded material. This would include checking on the **Advanced** group for any advanced settings needed
3. Click on the **Cutter** pull down menu, select **Send Cut Job**, and select the cutter to send the job to.
4. To queue the job with one of the cutters, click on **Queue Cut Job**. This will hold the job until it is manually released. To release the job, click on **Start Cutting**

### Connected Cutters

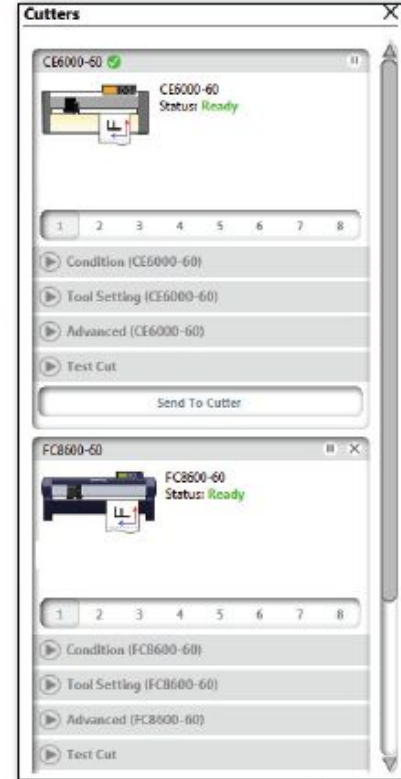
The Graphtec Studio is very interactive with all the connected Graphtec cutters. Click on the **Cutter** tool icon and this will open the **Cutter** options in the side panel. This shows not only show every cutter connected to the computer, but their current status and condition.

Each cutter shown has a top section displaying a picture of the cutter, model number and the cutter's status. Each status\* and their meaning is shown below:

- **Ready:** Cutter is ready to receive jobs from the Graphtec Studio.
- **Pause:** Cutter is pausing from cutting. It will be able to receive a job, but instead of cutting, it will be stored in memory. Once the cutter is taken off pause, the jobs in memory will be cut.
- **Busy:** Cutter is busy cutting a job. It will be able to receive a job and the job is cut once the other jobs that preceded have been completed.
- **Syncing:** Software is gathering information on that cutter. This generally occurs when the plotter is first put online.

Below the picture is basic information such as the firmware version as well as how the cutter is connected.

\* There are other status reading but these are the main ones.



# Finishing

1. Release the media set lever
2. Use the utility blade and cutting groove to cut the decal off the roll
3. Re-tape the roll and return it to the box

# Tips and Tricks

- Check your vinyl size in Graphtec Studio. Be sure it matches what's in the cutter.
- If using roll vinyl, in Graphtec Studio, set the size and then
  - Rotate 270 degrees
  - Zoom in and scroll to see the screen in the same position it will appear in the preview.
- Import or paste in graphics, use the GraphTec software to create text decals

# How does it work? Apply the decal

1. Use weeding tools to remove all the vinyl that you DON'T want
2. Apply masking tape or transfer paper tape to the FRONT of the decal
3. Carefully remove the backing
4. Align the decal on the surface  
\*\*Use caution and planning when adhering to glass surfaces. It sticks immediately and cannot be shifted.\*\*
5. Remove the tape or transfer paper

# Heat Transfer Vinyl (HTV) Essentials

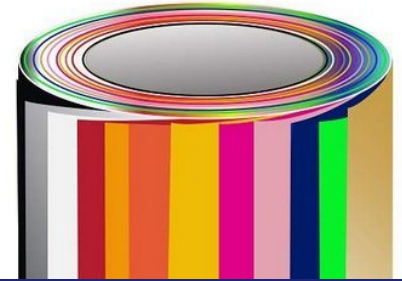
- Make iron-on fabric transfers
- Load vinyl in the cutter **dull side up**
- Cut in mirror image - After creating and tracing your design, in the preview, select Mirror>Horizontal - **TRIPLE CHECK!**
- Save a piece of adhesive cover so you can stick small bits of weeded vinyl to it as you go to prevent them from getting stuck on the design and ironed on.

## Application instructions (home iron)

- Peel carrier hot or cold
- Set iron dial between Cotton and Linen
- Cover design with Kraft paper or non-stick cover sheet
- Place on flat, hard surface (ironing board not recommended)
- Press iron with medium/firm pressure (do not slide iron)
- Press each section of design for 10-15 seconds
- If areas of design lift after application, replace cover sheet and re-press for 5-10 seconds

## Application Instructions (heat press)

- Peel carrier hot or cold
- Cut in reverse
- Weed excess material
- Preheat garment for 2-3 seconds
- Apply design at 305°F/150°C
- Use medium pressure for 10-15 seconds



## Siser Easy-Weed HTV

Cutter Settings:

Tool: CB09U+0

Blade: 45°

Gram Force: 8-9

Speed: 30 cm/s

# Design Tips

- Be bold
- Be brief
- Be consistent
- Bring contrast

**SQUINT**  
What stands out?

**I.D.**  
What identifies it as  
your library or brand?

**Walk away**

Look at your design from a distance. What catches your eye?

# Help and Support

[WLS IT Wiki Vinyl Cutter Help](#)

[GraphTec Video Help](#)

[Graphic Design on Lynda.com](#)

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