

Tips of the Day Related to Print+Cut

July 9, 2022

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Tip of the Day – 12/7/21: You only need to calibrate the camera ONE time

Repeatedly calibrating the camera doesn't do anything different because the camera takes over and finds the grid center on its own. The only time you might need to recalibrate is after a firmware update (separate from any and all CREATE updates) or if the SOLO has been shipped or otherwise handled roughly during transportation.

Here is a quick calibration video I made based on the factory engineer's instructions on how to calibrate. It really is this quick and easy to do:

<https://drive.google.com/file/d/136amVwGJrkuz4gilWLSY8IRKI3XAUqpu/view?usp=sharing>

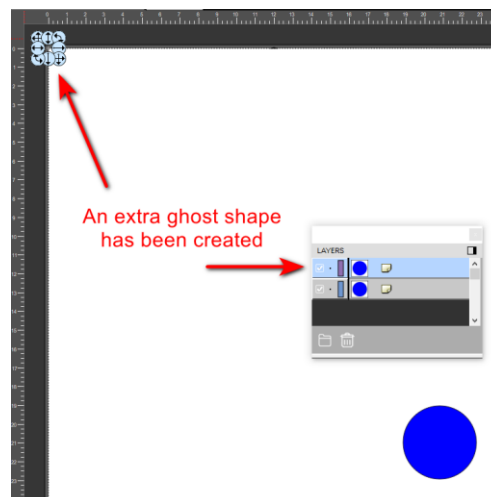
There is a way to adjust the calibration, if it's off. Refer to Tip of the Day – 1/7/22

Tip of the Day – 12/12/21: Causes of Red Light + Beeping

Right Side: If a printout for a print-and-cut application is too close to the right side of the SOLO, the cutter will exceed the right-side limit when the camera moves over to photograph the reg mark. The SOLO's light will turn red and it will begin beeping. You need to press **Stop** and then move the printout so that the reg mark is about 3" from the right end cap.

Left Side: If the same red light and beeping occur when the carriage is on the far-left side, again you'll need to press **Stop** and make a correction of some kind. The causes of left-side beeping are typically one of the following:

1. You sent a project that is wider than the allowable 15.6 inches.
2. You had the blade carriage moved too far to the left before starting the cut. For example, if your project is 12" wide and you've already moved the blade carriage, say, 5 inches to the left before starting the cut, there's isn't enough cuttable room remaining.
3. You inadvertently created a teeny tiny "ghost shape" in CREATE, which is easier to do than you might think. For example, if you add a basic shape using the rectangle tool from the left side **Tools Panel** and then left click on it before returning to the **Select** mode, one of these little ghost shapes will be created in the upper left corner of the mat area and will typically also be sent to cut. Because it's off to the left side, it can then cause the head to exceed the left-side limit depending on the size of your mat and where the blade carriage was located at the start of the cut.



Tip of the Day – 12/16/21 Adjusting the LED on the Camera

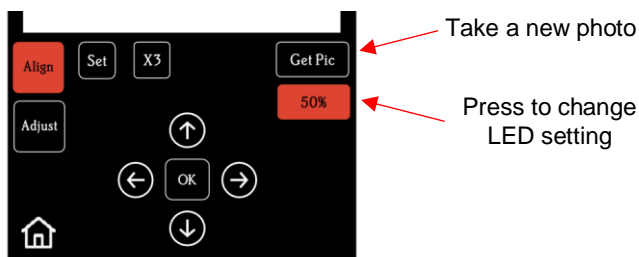
In a typical well-lit room, the camera will not have issues successfully identifying sharply printed black registration marks on a white paper printout. But the SOLO's camera can "see" so much more! The factory has successfully tested

transparent materials, slightly mirrored materials, glossy materials, and light-colored reg marks on dark materials (mark the Inverse option under **Set>Camera>Align>Set**).

Glossy materials and certainly slightly mirrored materials can have an issue with the **LED** reflecting too much light. A low light room or darker materials may need more light.

Thus, you'll see that the **LED** button on the camera screen has 4 options: LED (light is off), 20%, 50%, 100%.

You can press each one and see the light change under the blade carriage. Thus, if you are having issues with the camera failing at one or more reg marks AND it appears from the photo on the screen that perhaps the lighting is too dark or too light, then try adjusting the **LED** setting first. You can then press the **Get Pic** button to have a new photo taken at that same location.

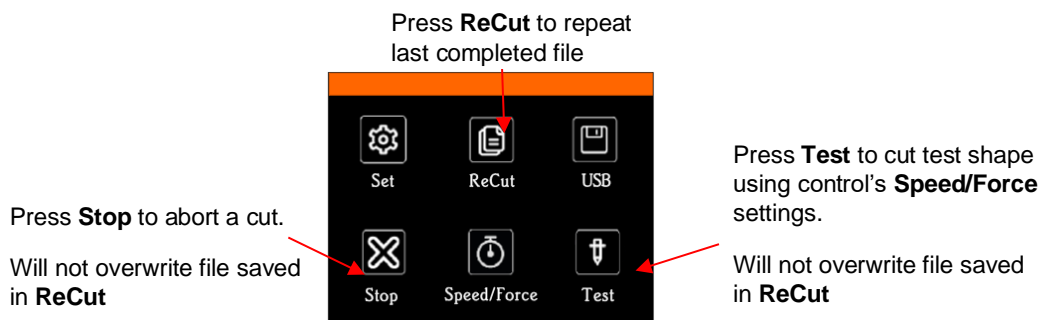


Tip of the Day – 12/18/21: How the ReCut function works

The **ReCut** / Repeat function on the control panel retains the last completed cut sent from CREATE or loaded and cut from the flash drive, even after being powered off.

This saved cut will not be overwritten by a test cut using the **Test** button on the control panel, nor will it be overwritten by a cut that had to be stopped before completion.

The **ReCut** also works on Print+Cut applications. After loading a new printout and setting the blade tip over the lower right reg mark, press **ReCut** and a new scan will begin.



Tip of the Day – 12/19/21: Borderless Printing Caution

Borderless printing CAN be used in SOLO print-and-cut applications. However, most printers by default will expand the printing towards the borders of the printout, resulting in the reg marks being in the wrong location relative to the software (i.e., CREATE). When that happens, the auto-scanning will fail because the camera is not close enough to the printed reg mark.

The solution is to understand your printer's properties windows so that you can locate a second setting which may be a scroll bar called **Extension** or **Expansion** or **Overspray** or something else (differs with the brand of printer) or, in some cases, can just be a checkbox to enable or disable. Usually, these settings do not appear until you activate **Borderless**.

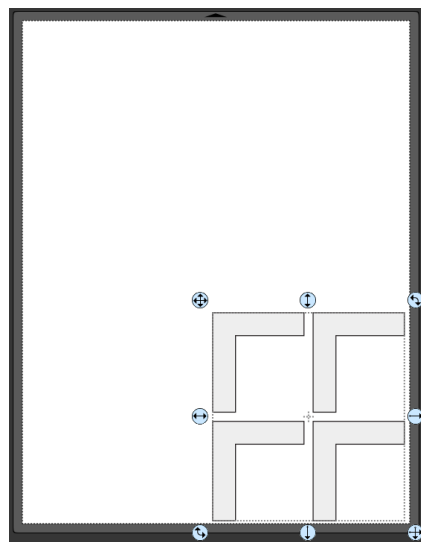
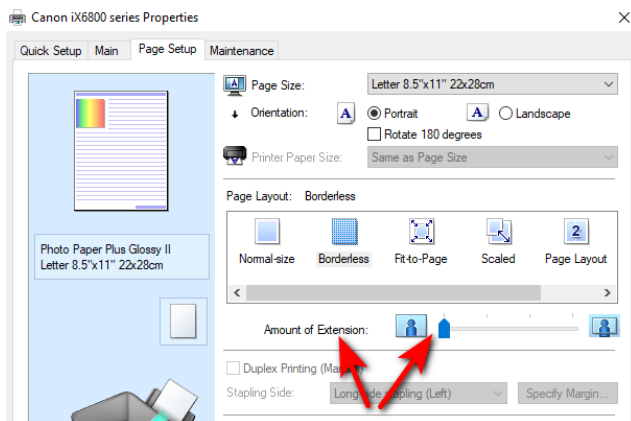
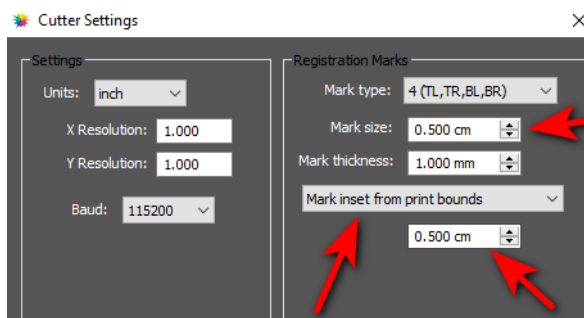
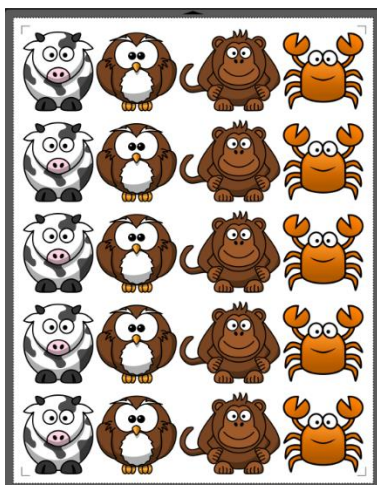
Here's a document in case you want more info on where you might find this setting on an Epson, Canon, or HP Printer:

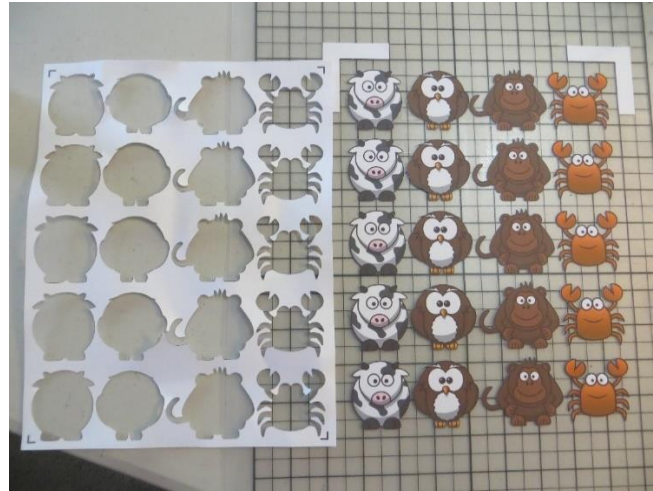
[Solving Borderless Printing](#)

Tip of the Day – 12/20/21: Reg Mark Settings – Fitting More Shapes onto a Sheet

You can change the reg mark settings to make them based on the location on the printout versus around the design. Because the reg marks were so close to the edges, I had to turn on **Borderless** printing AND change the **Extension** setting in my Canon printer properties to the minimum extension (as I covered in yesterday's tip).

Also, because of the reg marks being so close to the edges of the printout, the camera can sometimes confuse them with the corner of the paper or even the mat itself. Solution? Add some L-shaped cutouts for any corners that might have issues (and keep these same cutouts for future projects). You can go ahead and do all 4, but I knew the camera was only having a problem once it reached the 3rd mark. After placing the cutouts in the 3rd and 4th corners, I ran again with successful scanning and perfect results:



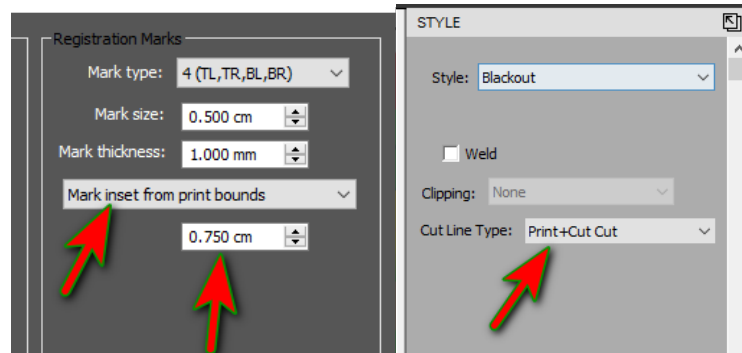
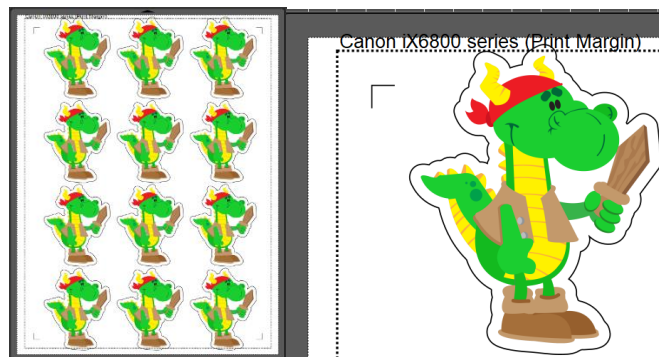


Tip of the Day – 12/21/21: Extending Beyond the Reg Marks

In a Print+Cut application, the printed shapes AND the cut lines can extend beyond the reg marks. The cut lines can even extend beyond the print margins.

Related to yesterday's tip, the Print+Cut options for the SOLO, in combination with the CREATE software, give users more space for contour cutting applications. When setting up the project, keep in mind the following:

- Set up the reg mark settings (**Cutter>Cutter Settings**) as shown in the screenshot so that the placement will be related to the print margins (or “inset from page bounds” is another option if your page dimensions are set equal to the print dimensions). Do not use the “around design” option.
- Make sure the cut line is assigned as **(Print+Cut) Cut Only** on the **Style Panel** so that it won't be sent to the printer.
- Always set up and group the first design before making the duplicate copies (**Ctrl+D**). That way you do not have to individually assign each cut line on the **Style Panel**.
- On the **Document Panel**, enable **Show Print Margins** and **Show Reg Marks** to verify that the printed part of the project is inside the printer's margins. Again, the cut lines can extend beyond that, if needed.



Tip of the Day – 1/2/22: Using the Camera to Set the Origin

In cases where you need a very precise setting of the origin (such as engraving on a dog tag), select the “spot” that you want to use as the origin and then use these steps:

- (1) Move the blade (or tool) tip to the approximate location of that origin.
- (2) Go to **Set>Camera** and press **OK** to take a photo.
- (3) Tap the “spot” in the photo and press **OK** again.
- (4) Press **X3** to zoom in, tap the “spot” again and use arrow keys to move the red “+” to the dead center of the “spot”.
- (5) Press **OK** and the blue dashed lines should be centered now with the “spot”. If needed, repeat these last two steps.
- (6) Press the **Home** button and the blade (or tool) tip will now be over that “spot”.

In the event I want to do this with the first reg mark for a P+C application, only steps 1-3 and then 6 are needed. The camera will now successfully locate that first reg mark and will proceed from there.

[Set the Origin Using the Camera Video](#)

Tip of the Day – 1/6/22: Print+Cut Accuracy – Part 1 of 3

If you're having issues with alignment of the cut shapes with the printed images, check carefully to see which of the following is the actual issue:

- (1) Are all of the shapes off by the same amount in the same direction? That's the calibration but do NOT keep repeating the auto-calibration thinking you'll get different results. There's a way to enter a correction which will be covered in tomorrow's Tip of the Day.
- (2) Are the initial cut shapes accurate but, as the cut progresses, the shapes become more and more off? That's called drifting and is unrelated to the calibration. There are various factors which can cause drifting which will be covered two days from now.



1. Calibration is off



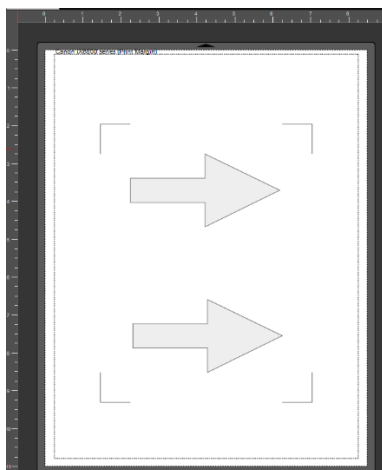
2. Cut is drifting

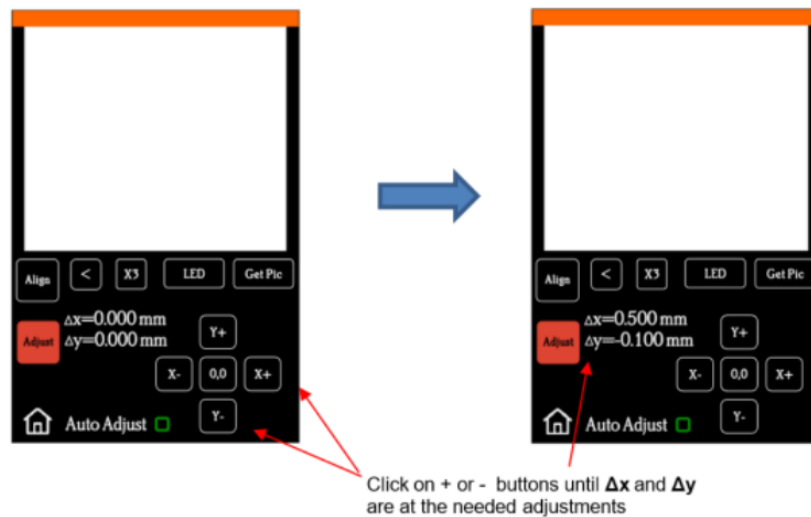
Tip of the Day – 1/7/22: Print+Cut Accuracy – Part 2 of 3- Adjusting Camera Calibrations When Needed

Yesterday's tip explained that if you see the cut line is off by the exact same amount on every printed shape, then the calibration may need adjustment. Do NOT recalibrate the camera but rather enter a manual adjustment using the following instructions and video:

Do a print+cut test on copy paper using arrows so that you have both horizontal and vertical lines to indicate clearly if you need to tweak in the X direction, the Y direction or both. Remember to also look at the waste area of the printout because the lines might show on it. Then think about what direction(s) does the cut line need to move.

Next, watch this video for the procedure you'll use. Repeating a few times should tweak that calibration to perfection.
https://drive.google.com/file/d/1835VAzZCV_Dq10G07xuNMpb5kzLvLd_5/view?usp=sharing





Tip of the Day – 1/8/22: Print+Cut Accuracy – Part 3 of 3- Diagnosing Drift

Drift is the term used when a Print+Cut starts out accurate but, as the cut progresses, the cut lines begin to drift further and further away from the printed images. What causes this? Friction. What causes friction in this situation? There can be many culprits so here's a list of the things you need to check. Note that this list applies to other cutters, as well.

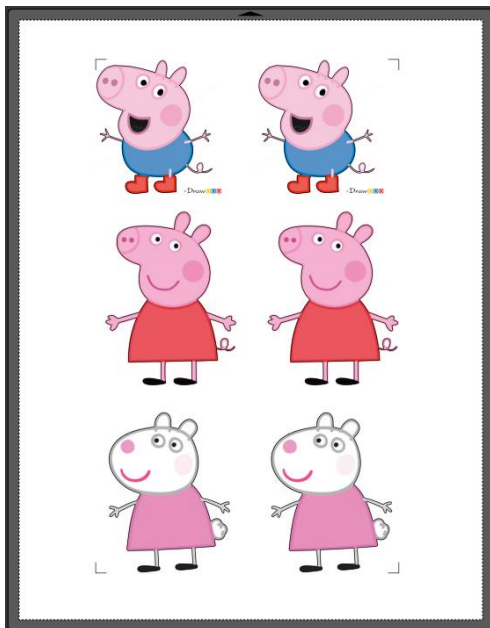
1. **Pinch wheels** – Wrong locations for pinch wheels over the mat and/or pinch wheels are not centered over the grit shafts.
2. **Speed** – the faster the material or cutting mat is moving in and out of the cutter, the more likely some slippage could occur. The more shapes being cut, the slower you may need to set the cut speed. Normally, 7 or 8 can be used successfully.
3. **Blade Exposure** – if the blade is cutting into the mat, that will definitely cause more friction because the blade is now being forced to cut into a thick material. Verify from your test cut that any cut lines you are see are very faint as if the blade tip is only grazing the adhesive. Reduce that exposure as needed but maintain or increase pressure to make sure the cuts at still clean.
4. **Stickiness** – any stickiness on the bottom of the cutting mat, on the pinch wheels, and/or on the grit shafts can also cause drag and slippage. Thus, keep all of these very clean.
5. **Thick materials** – similar to the blade cutting into the mat, cutting thick materials can cause dragging which will then throw off the accuracy. Instead of single pass cutting, set Multi-cut to 2 or more passes and reduce the pressure so that the blade isn't being forced to cut a material faster and deeper than it's able to.

You can also add intermediate registration marks so that additional scanning can be performed during the cut. This can greatly assist with drifting issues. Refer to Tip of the Day – 1/21/22.



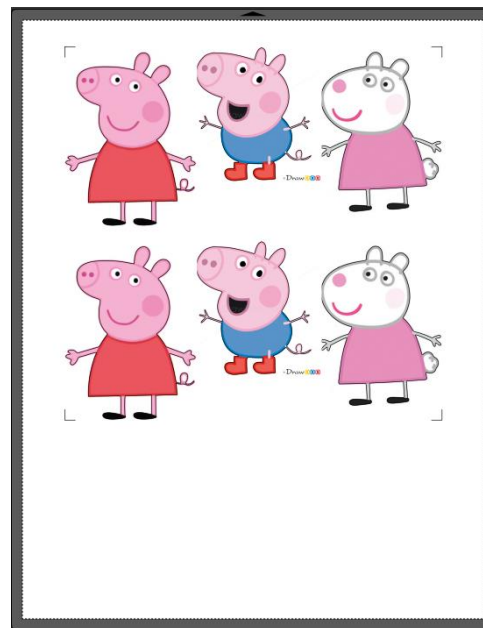
Tip of the Day – 1/15/22: Counter-clockwise Scanning of the Reg Marks

If you notice your SOLO scanning the reg marks in a counterclockwise order instead of the usual clockwise order, not to worry. The direction changes if the width of the project is wider than the height:



Reg Marks will be
photographed in a
clockwise order

versus



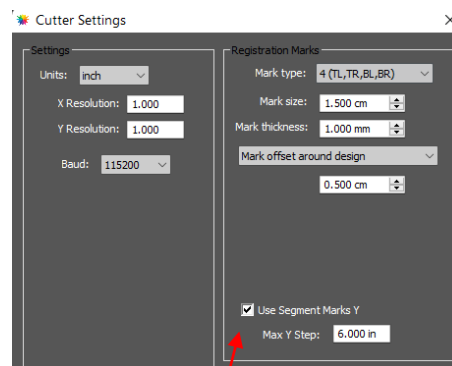
Reg Marks will be
photographed in a
counterclockwise order

Tip of the Day – 1/21/22: NEW Intermediate Reg Marks!

Surprise! Surprise! Paul Zingah discovered a new addition to the **Cutter>Cutters Settings** window in CREATE 1.008 that will be warmly received by those doing Print+Cut applications on long printed sheets or from thicker materials, such as laminated sheets.

I mentioned in the January 8th Tip of the Day that when print+cut projects start off accurately, but begin to drift off course during the duration of the cut, the cause is friction. And it can sometimes be difficult to correct that friction. But the developer of CREATE has added a function that is usually only present in some of the professional (aka expensive) vinyl cutting programs: **Intermediate Reg Marks**.

Just enter the distance at which you want another set of marks added to your project and the camera will only cut up to that distance before scanning the next set of 4 marks. By having repeated scans during the cut, corrections will be made increasing the accuracy as the cut progresses.



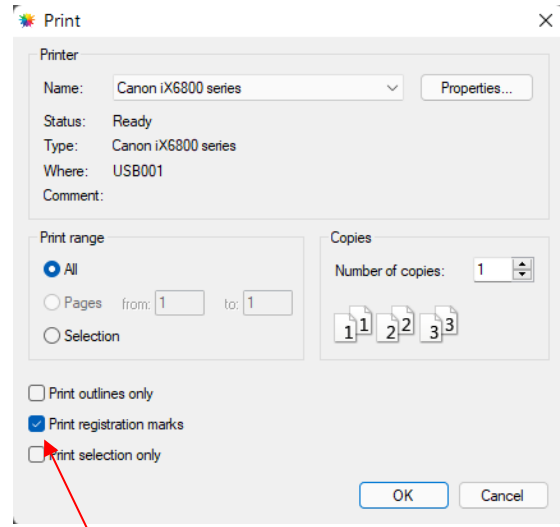
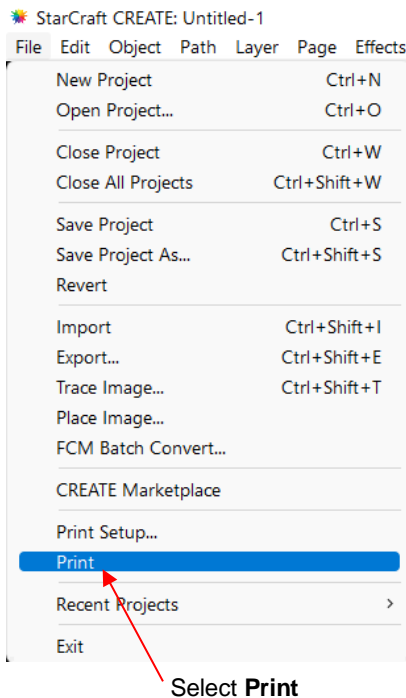
Tip of the Day – 2/24/22: Two Places for Printing a P+C Project

There are two locations where you can print your projects:

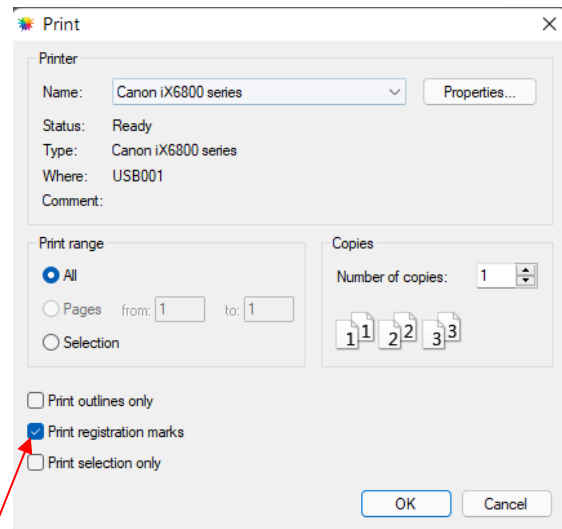
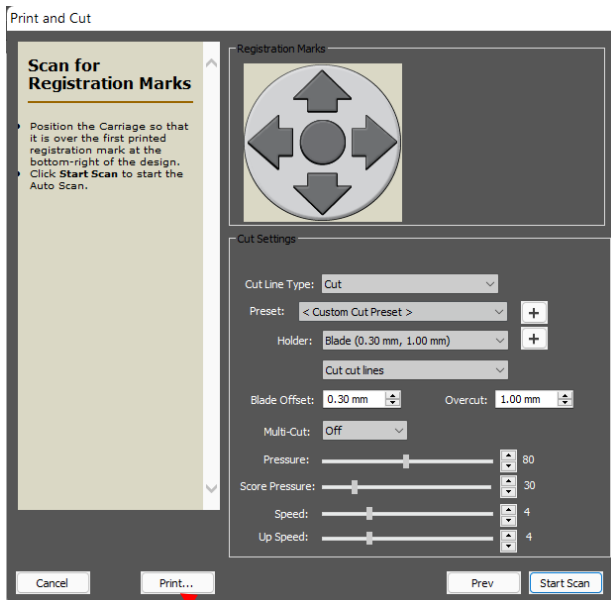
- (1) **File>Print** (from the main window in CREATE). Don't forget to enable **Print registration marks**.
- (2) After you click on the **Print+Cut** button and then click on **Print...**

There is no difference in which one you choose other than the second option will always have **Print registration marks** already enabled for you.

Option 1: **File>Print**



Option 2: Click on **Print** in the **Print and Cut** window



Tip of the Day – 2/28/22: Print+Cut automatically defaults to WYSIWYG

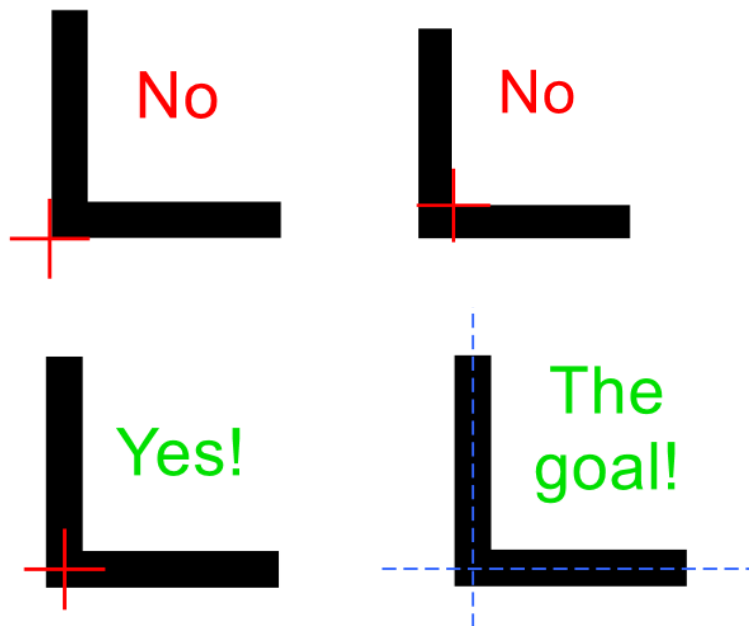
As you know by now the **Cut Settings** window had 3 options in the **Cut Mode** drop-down menu: **WYSIWYG**, **Origin Point**, and **Center Point**. Sometimes I get asked which setting is appropriate for print+cut applications. It actually doesn't matter because the moment you click on the **Print+Cut** button, CREATE resets the **Cut Mode** to **WYSIWYG**, which is the appropriate choice. Just remember that when you go to the **Cut Settings** window for your next project, the **Cut Mode** will be set to **WYSIWYG**, which is why it's always a good idea to check that setting before every cut.

Tip of the Day – 3/2/22: Manually Setting a Reg Mark

First let me emphasize that I want all SOLO owners able to have the camera successfully scanning all 4 registration marks automatically. If you are having issues, please post and Paul, Rhonda, or I will help you resolve the issue (which is typically a printer setting or driver).

However, in the event that you do need to manually “show” the camera where the reg mark is located, note two things:

1. You can use the arrow keys on the SOLO’s camera screen to precisely move the red “+” as close to the center of the reg mark as possible.
2. The center of the reg mark is right in the middle of the black part of the reg mark (versus along the edges), as shown below:



Tip of the Day – 3/3/22: 7 Reasons Why the Camera’s Auto-Scan Might Fail

The first three reasons are user errors but easily fixed:

Reason #1 The printout and/or mat are out of alignment with the SOLO. While everything doesn’t have to be perfectly aligned at the start of the cut, it helps eliminate the possibility of the camera missing one or more.

Reason #2 The reg marks are either too close to the edge of the printout (and the camera is confusing them with grid lines on the mat... refer to 12/20/21 Tip of the Day) or the reg marks are too close to the design.

Reason #3 The user doesn’t have the tip of the blade over the corner of the lower right registration mark.

The next four reasons are all tied to the reg marks not being printed with the correct spacing, based on CREATE’s settings. One or more SOLO owners have had to do the following in order to correct the misprints:

Reason #4 Borderless printing has been activated but another setting, sometimes called **Extension** or **Expansion** or **Enlargement** or **Overspray**, hasn’t been minimized or turned off.

Reason #5 One or more of the printer’s **Settings** is causing the issue such as **Fit to Page**, **Scale to Fit**, **Zoom** to a set %, or other possibilities related to how large the printer will be using for that design. Look for **Actual Size** or **100%** if available.

Reason #6 An out-of-date printer driver – Use Google to search and find your printer's model, download and install the latest, reboot your computer and try again.

Reason #7 The wrong printer driver is in use – Sometimes the Microsoft IPP Class Driver gets control of the printer on a PC and this will lead to printer errors. Here's the solution:

1. Disconnect the printer connection - unplug the printer or disconnect from Wi-Fi.
2. In **Windows Settings > Devices** - select the printer and choose remove device
3. In **Windows Settings > Apps** - search for anything related to the printer and remove, except those not related to printing (e.g. scanner).
5. Google and find the genuine driver from the printer's support page. Install the driver.
6. Connect the printer and try again.

Tip of the Day – 3/6/22: Review – Print+Cut Assignments (why you don't need a Flatten function)

CREATE has a **Style Panel** (one of the **Properties** panels on the right side) where you tell CREATE what you want to see happen with any given layer. If you plan to have a lot of repeated designs in your project, please do this **BEFORE** duplicating so that the copies will all have the same assignment.

Select each layer of the design (or select multiple layers at once if they need the same assignment) and choose one of the following in the **Cut Line Type** drop-down menu:

Cut: This layer will BOTH print AND it will cut

Print+Cut Cut: This layer will ONLY be sent to cut and anything you see on the screen will not print

Print+Cut Print: This layer will ONLY be sent to the printer and your SOLO will not cut it

In the upcoming week, I will present more example of the projects I'm seeing new SOLO owners create so that it will be easier for you to set up what you need in various types of **Print+Cut** applications. As always, ask questions as you have them. 😊

Tip of the Day – 3/7/22: What's the Cut Line?

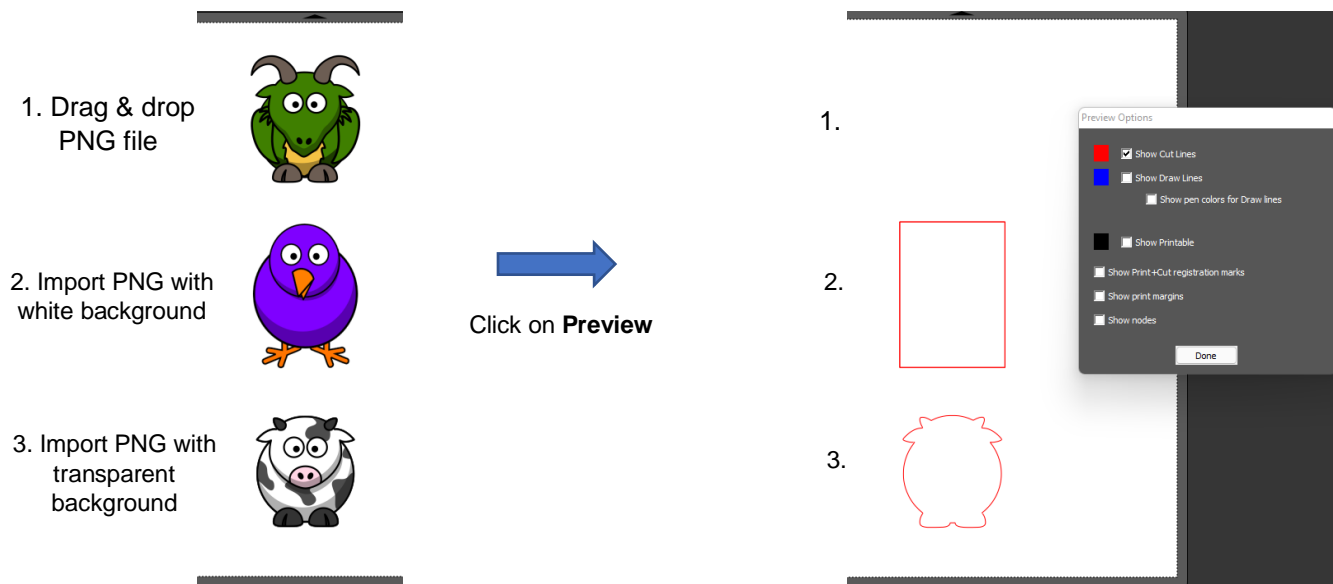
So, the one thing that's often unclear to us when someone asks for P+C help is this: What exactly is the shape part you're wanting to cut out? The print part is typically obvious, but the cut lines can sometimes be:

1. Hidden from view by the print layer
2. Set to **No Fill** and **No Stroke**
3. Not even yet present in the project

The fastest way to check for the cut layer's existence is to click on the **Preview** icon at the top and ONLY have **Show Cut Lines** marked, as shown in the screenshot. The 3 examples are the result of the following:

1. A PNG was dragged and dropped into CREATE (or **File>Place Image** was used). In this case, there won't be a cut line present until the image is sent to the **Trace Image** window.
2. A PNG with a white background was imported using either the **Import** icon at the top or **File>Import**
3. A PNG with a transparent background was imported using either the **Import** icon at the top or **File>Import**

Thus, before you reach out for help, do this quick test and include screenshots of what you're seeing in the main window both before and after you click on the **Preview** icon. This will help us know the next questions to ask.



Tip of the Day – 3/8/22: How to Add a Cut Line for a Print+Cut Application

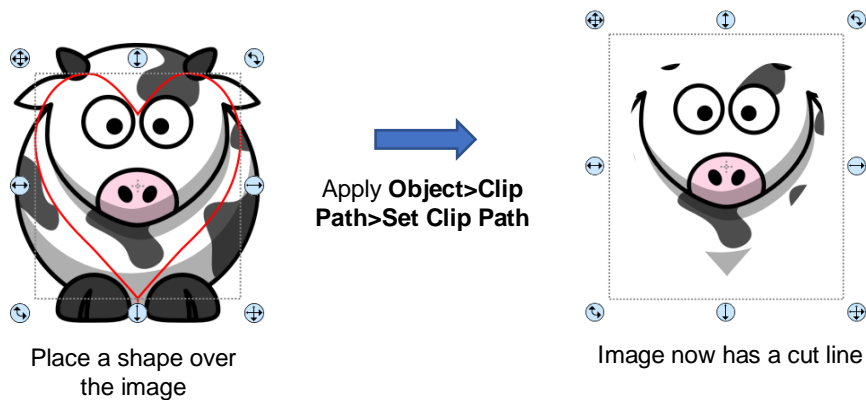
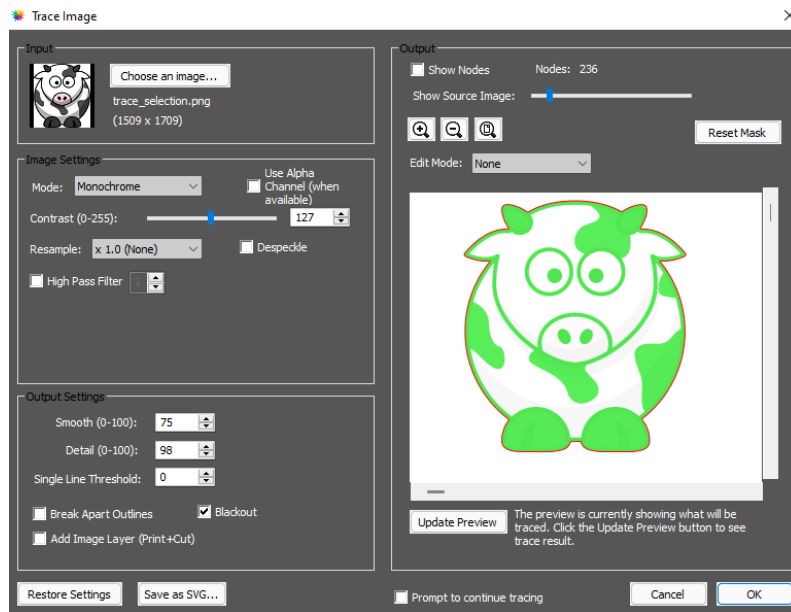
In yesterday's Tip, I showed that when using **File>Place Image** or drag-and-drop you won't have any cut line added. There will only be the imported raster image present.

To then add a cut line there are typically two methods used, depending on what you need:

1. Go to the **Trace Image** window, perform a **Monochrome** trace and you have your imported image with cut lines added. If you've not tried tracing yet, Rhonda's videos are here: <https://www.iloveknk.com/support/starcraft-solo-and-create/solo-and-create-videos/> (scroll down to the section called Tracing). After you have a trace line, be sure to set the **Cut Line Type** to **Print+Cut Cut** on the **Style Panel**.
2. Add a cut line shape you want to use and then, if you need to crop (clip) out part of the imported raster image, select both and go to **Object>Clip Path>Set Clip Path**. As with the other example, be sure to select the shape you used for clipping and set it to **Print+Cut Cut**. Rhonda's video on this is here: <https://www.youtube.com/watch?v=asBdzMfqivE&list=PLsxNn0pybwotV4lmR3wnSDI2AI9JqpV0j&index=24>

1. Adding a cut line around the image

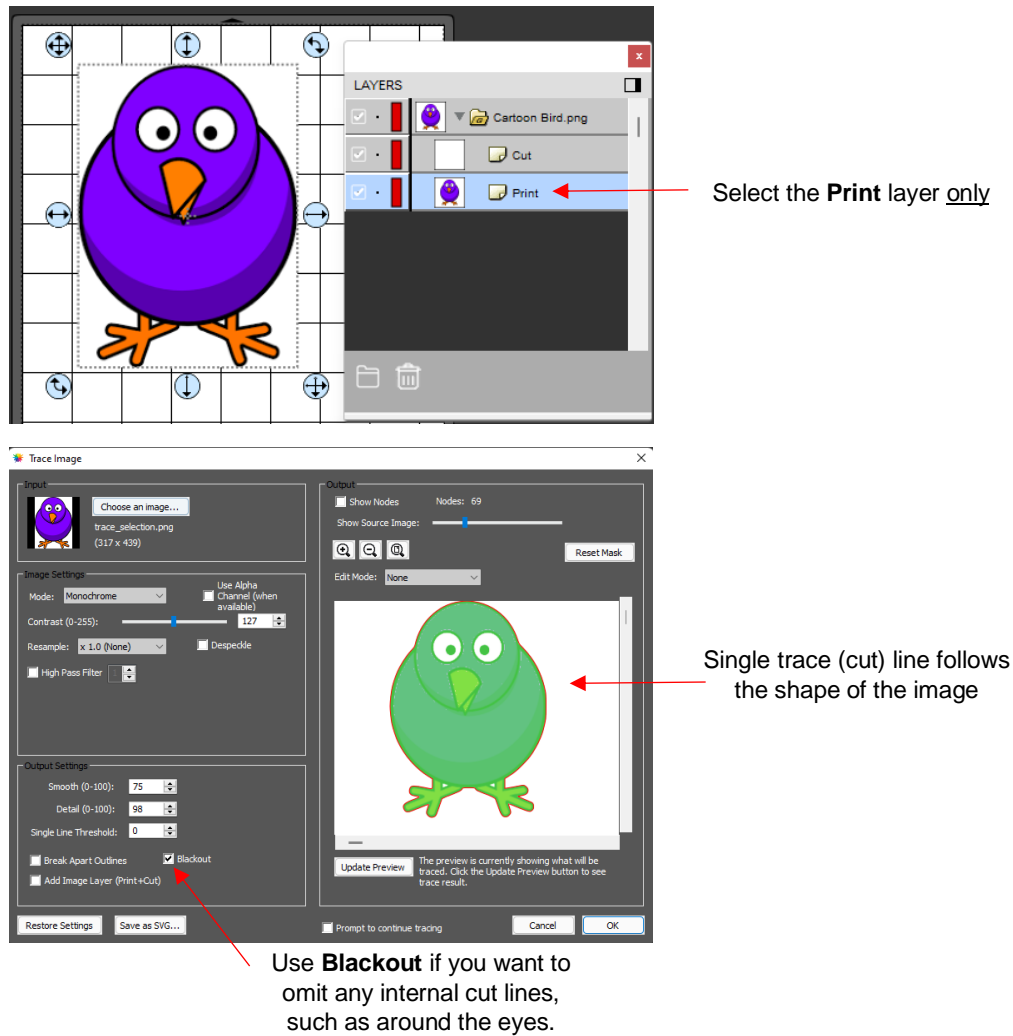
← A cut line is added around the shape



Tip of the Day – 3/9/22: The Cut Line is a Rectangle?

Two days ago, I posted that if you import a PNG file using the **Import** icon (or **File>Import**) and the **Preview** indicates the cut line will be a rectangle, that means the background was not transparent. You have two options at this point:

1. Go to the remove.bg web site, upload your PNG file and it will remove the background for you. It's free and tends to work very well for many images. I'm so glad Corinne Blackstone showed this in one of her videos. You can also use a free program called GIMP to remove the background and Rhonda has covered GIMP in her videos here: [GIMP Playlist](#)
2. Select **ONLY** the **Print** layer from the **Layers Panel** and click on **Trace Image** icon to create a new cut line that follows the shape of the image. After tracing, be sure to delete the original **Cut** layer as you no longer need that rectangle in your project.



Tip of the Day – 3/11/22: Adding a Print Bleed to a PNG with Transparent Background

Today's tip: you can add a bleed layer to an imported PNG file in just a few quick steps after importing the file:

1. Ungroup.
2. Select the **Cut** layer and increase its **Stroke** setting.
3. Move the **Cut** layer below the **Print** layer.
4. Regroup the two layers and make duplicates as needed.

Here's the video: <https://youtu.be/ChbnGBpirxU>

Tip of the Day – 3/12/22: Adding a Print Bleed to an Image with a Colored Background

Today's tip: you can add a bleed layer to an image with a colored background by:

1. Send the image to **Trace Image** to create the **Cut** line along the image's border.
2. Make a copy of that **Cut** layer and then go to **Effects>Shadow** to create the size of bleed desired.
3. Select both the **Cut** line copy and the **Shadow** and apply **Object>Merge**.
4. Select the **Merge** layer and change to **Print+Cut Print** on the **Style Panel**.

5. Regroup all layers and make duplicates as needed.

Here's the video: <https://youtu.be/PzzYBmbRFO4>

Tip of the Day – 3/15/22: Checking and Tweaking the Camera Calibration

After calibrating the camera using this video,

<https://drive.google.com/file/d/136amVwGJrkuz4gilWLSY8IRKI3XAUqpu/view?usp=sharing>

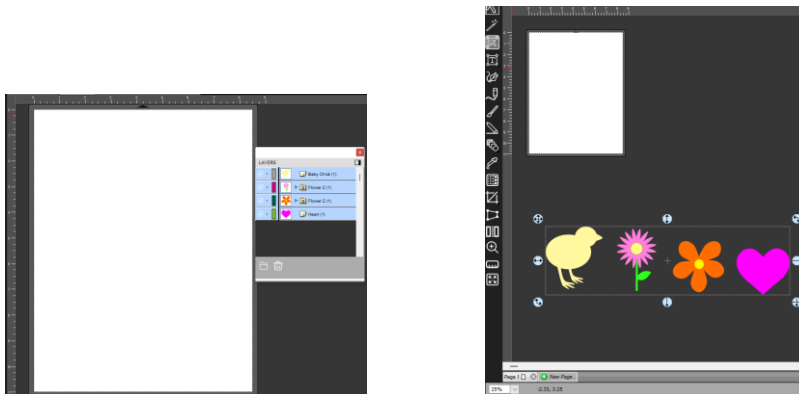
It's a good idea to do a quick test to verify the accuracy with the blade. Here's a simple file that reveals if you need to move the cut line up or down and left or right in order to have the most accurate results possible:

<https://drive.google.com/file/d/1EQdAdJqM2MR9TZTqHGxHFsefSUfb8yoL/view?usp=sharing>

Download this file, open up in CREATE, print it out on copy paper and then perform the Print+Cut process.

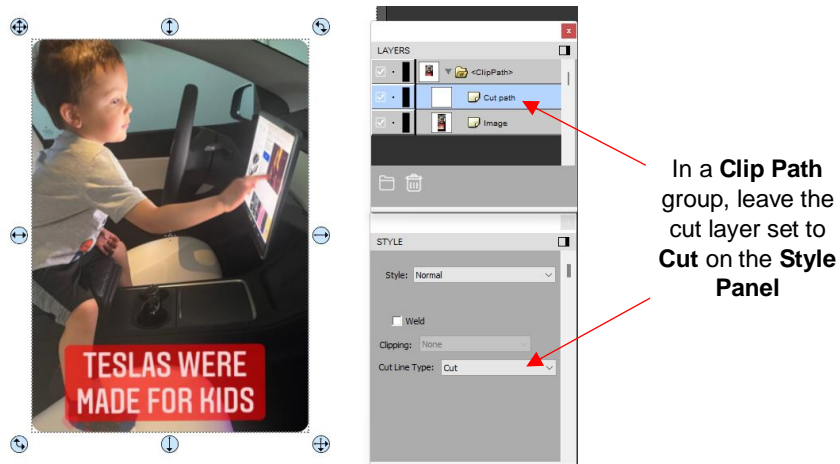
If the arrows are not cut out along the printed lines, then please watch this video. It will help you in knowing how to adjust the cut line and be sure to keep repeating the arrow test as you narrow in on the best settings. Remember that repeating the initial calibration will NOT help you get better results.

https://drive.google.com/file/d/1835VAtZCV_Dq10G07xuNMpb5kzLvLd_5/view?usp=sharing



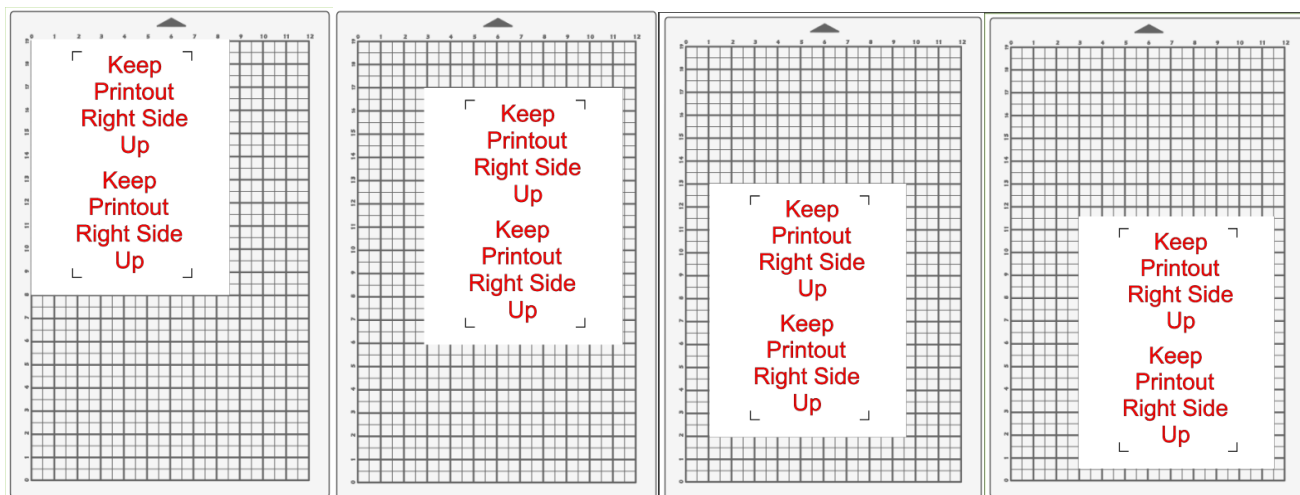
Tip of the Day – 3/21/22: Clip Path Exception

If you create a clipped path, do **not** change the **Style** assignment on the *Cut* layer from **Cut** to **Print+Cut Cut**. That layer can't display a stroke assignment, anyhow, so it's not going to print a border. And if you change its assignment on the **Style Panel**, your entire image will not print because, with a **Clip Path** in place, the software treats those two layers as one when it comes to printing.



Tip of the Day – 4/3/22: Placing Your Printouts onto the Cutting Mat

Regardless of whether you slide the mat from the front towards the back or from the back towards the front, your printout still needs to face the same direction as it looks in CREATE when the Orientation is set to Vertical (Portrait) on the Document Panel. You can also place the printout anywhere you like onto the cutting mat:



As you face the SOLO, your printout needs to match how you see it on the screen in CREATE.

Printout can be located anywhere on the mat.