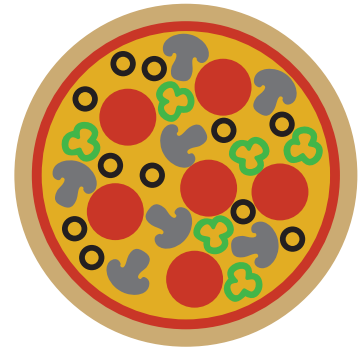


How to Make a Vector Pizza



How to make a great vinyl sticker

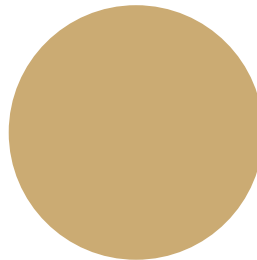
Part 1: Design

Six key design considerations for making a great sticker



Use of Substrates

All vinyl stickers need a **Substrate** layer to hold everything together. On our vinyl pizza, like a real pizza, our substrate is the crust.



Layering

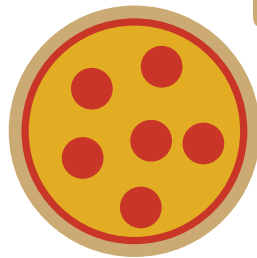
The rest of the sticker is built up in layers. Keep in mind what order these will be assembled and remember that every layer should be completely underneath the layer on top.

TOPPINGS
CHEESE
SAUCE
CRUST



Punching Holes

Sometimes you have multiple parts that are the same colour. Instead of cutting out two different layers, you can save vinyl and time by punching holes in the layers above.



Overlapping Lines

It's important to remember that any overlapping vector lines on the computer will be visible on the finished sticker. If a layer isn't completely on top of the layer below it, you will be able to see the edge of the layer below.

EASIER

HARDER



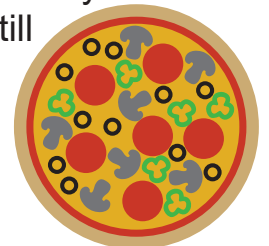
Size and Complexity

The plotter machines used to cut out the layers can only cut so small. It is harder to cut a small hole than to remove a large area around a small object. Every bit of negative space on every layer needs to be removed by hand in a process called weeding. For example, every white part of the bear would need to be cut out and then removed.



Registration and Repeatability

Registration refers to how well a layer lines up with the others. In the pizza graphic, the edge of one layer does not touch any other edge, meaning if the layers aren't lined up perfectly, the sticker will still look fine. If you are making multiple stickers, you want to make sure they can all look the same, so make them easy to assemble.

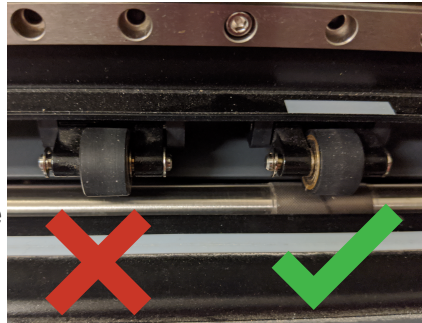


Part 2: Cutting

Cutting out your vinyl with the Roland GX-24 vinyl cutter and Roland CutStudio Software

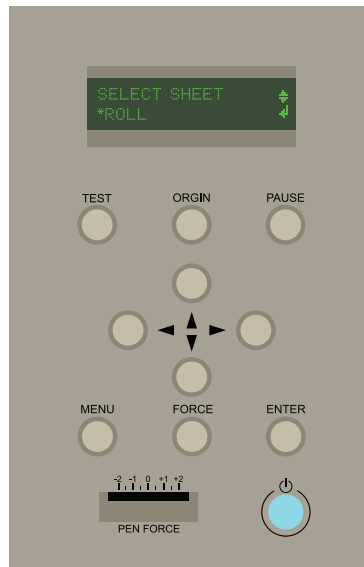
Loading the Material

1 Insert Vinyl
Push the end of the vinyl roll into the machine from the back. Make sure both wheels are above the vinyl and are also in the white zones above the wheels.



2 Lock the Wheels
Use the lever on the back, left hand side of the machine to press the wheels down.

3 Select the type of Piece
Turn on the machine. Choose between roll or piece depending on the vinyl you are using.



4 Adjust Settings
Set the force, speed and pen force for the specific piece of vinyl you are using. The settings may vary depending on brand and even individual colour.

5 Test Tracking
Use the arrow buttons to move the vinyl towards you to make sure it is running straight and won't run off of the wheels.

Tip: There is an optical sensor on the left side of the machine that makes sure the vinyl doesn't run past the rollers. If your vinyl is curved upwards, you may need to hold it down so it stays on the sensor.

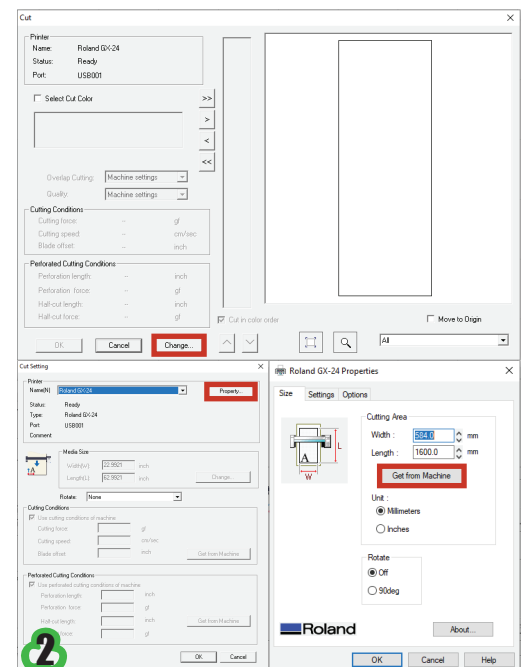
Loading the Image

Tip: It's important to make sure all layers are scaled properly so they line up when assembled. Don't ever scale just one layer.

1 Open Roland CutStudio



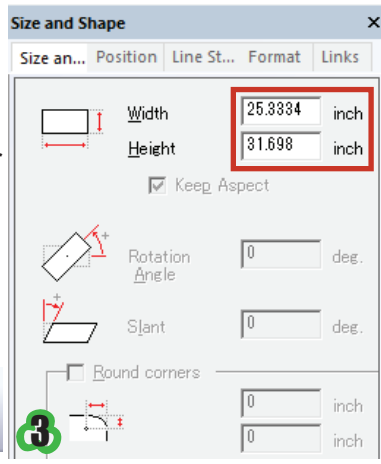
2 Get Cutting Area Size
Click the "Cutting" button, select change, then properties, then get from machine. This will adjust the white cutting area to the actual size of the vinyl in the machine.



3

Import and Scale

Click on import and choose your file. All layers of your sticker should be in the same JPEG file so they can be scaled at the same time. Right click on the image, choose properties and change the width and height to match your image.



4

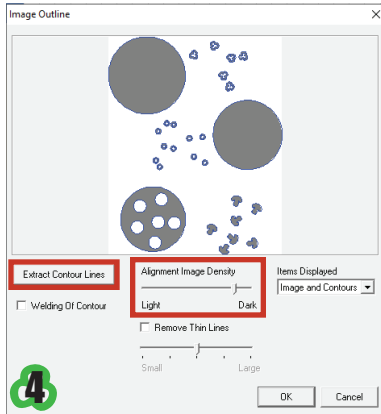
Extract Lines

Right click on the image and select "Image Outline". Adjust the "Alignment Image Density" slider until the entire image is visible. Then click "extract contour lines".

6

Start the Cut

Press the cutting button, then Ok. Make sure to keep an eye on the machine to make sure everything is working properly. When the machine stops moving, remove the vinyl and cut your piece off the roll.



5

Position Layers

Place the layer you are cutting at the bottom of the white cutting area. Put it as close to the corner as possible so you don't waste vinyl. Put all other layers off to the side but don't delete them.

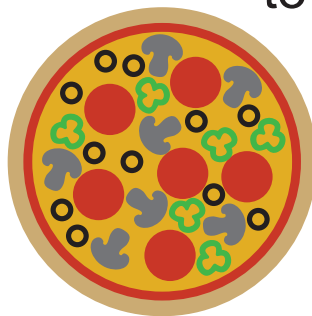
Part 3: Weeding

Weeding is the process of removing the parts of the vinyl sheet you don't want to be a part of your sticker.

1

Separate your Piece

Cut the part of the vinyl with your sticker part off of the roll. It's easier to weed with a smaller piece and is less wasteful.



2

Peel Away the Surrounding Vinyl

It's usually easiest to remove the vinyl surrounding the sticker so you can see all of the other parts a bit easier.

3

Remove the Small Bits

Using an X-acto knife or thumbtack, remove all unwanted small pieces until the only thing left is the layer you want

Tip:

Make sure to do your weeding in a well lit area. It can be tough to see the cut lines unless you have a direct source of light! Make sure that your knife has a very sharp point. A dull or damaged knife won't be able to pick up the tiny pieces of vinyl.

Part 4: Assembly

Steps:

1 **Tape the Bottom Layer to the Light Table**

2 **Tape the Top Layer on Top**
Use the light table to line the layers up. Make sure to tape the layer so it is secure but easy to remove.

3 **Add the Transfer Tape**
Make sure it covers both layers entirely. Use a piece of masking tape to create a hinge.

4 **Make Sure the Transfer Tape Sticks**
Use a hard squeegee or a gift card to make sure all pieces of vinyl are stuck to the transfer tape.

5 **Lift the Transfer Tape**
Use the transfer tape to peel the vinyl off of the backing. Peel at about a 30° angle from the light table for the best results.

6 **Stick the Top Layer to the Bottom**
Remove the backing from the top layer and roll the transfer tape back onto the bottom layer. Be careful to avoid air bubbles or wrinkles.

7 **Remove the Transfer Tape**
Peel the transfer tape at a 170° angle to remove it from the vinyl.

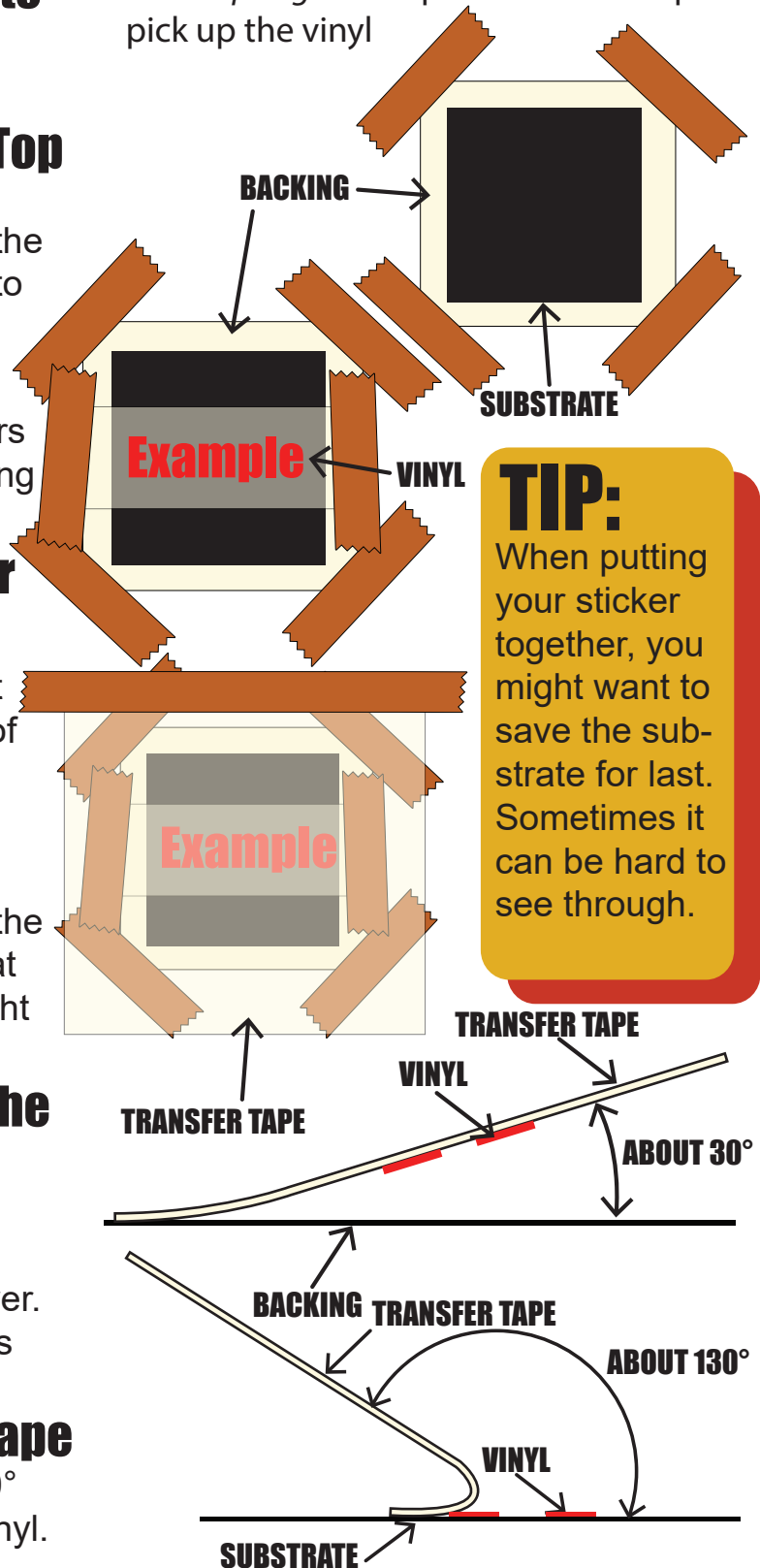
What You Need

Painter's Tape - Used to attach everything to the light table

Light Table - Allows you see multiple layers at the same time

Transfer Tape - Picks up the vinyl

Hard Squeegee - Helps the transfer tape pick up the vinyl



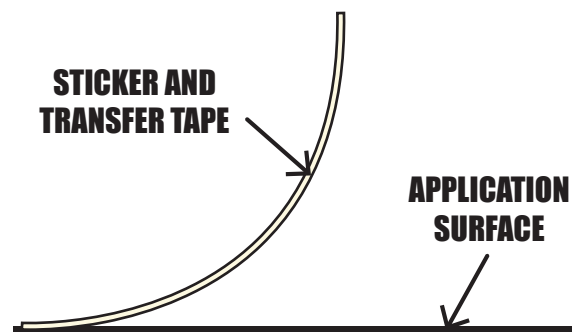
Part 5: Application

Standard Application For low-registration scenarios

1 Prepare the Surface
Make sure the spot you want to put your sticker is dry and has no dirt or grease. On an extremely glossy surface, you can use a high grit sandpaper to roughen the spot the sticker will sit. Be careful to only roughen underneath the sticker.

3 Place the Sticker
Carefully bend the sticker so that you can roll it onto the surface to avoid bubbles and wrinkles. Then remove the transfer tape but be careful not to remove any parts of the sticker.

2 Remove the Sticker from the Backing
Use the transfer tape in the same way you built your sticker, remove the entire sticker from the backing with the transfer tape.



Precise Application For high-registration scenarios

1 Prepare the Surface
Cover the surface in a mixture of 5% dish soap and 95% water.

2 Alignment
The dish soap mixture will allow the sticker to slide around on the surface, allowing you to position it perfectly.

3 Dry
Let the sticker dry for 20-30 minutes. Then try removing the transfer tape. If the sticker peels away with the transfer tape, let it dry for longer.

4 Place the Sticker
Remove the sticker from the backing and place it onto the surface the same way you would for a standard application. **Do not remove the transfer tape yet!**

5 Remove the Water
Use a squeegee to remove the water. Be careful not to move the sticker.

Now it's your turn!
Use these tips and tricks to design your own multi-colour vinyl sticker!