

# How to Use the Roland BN-20 Vinyl Printer

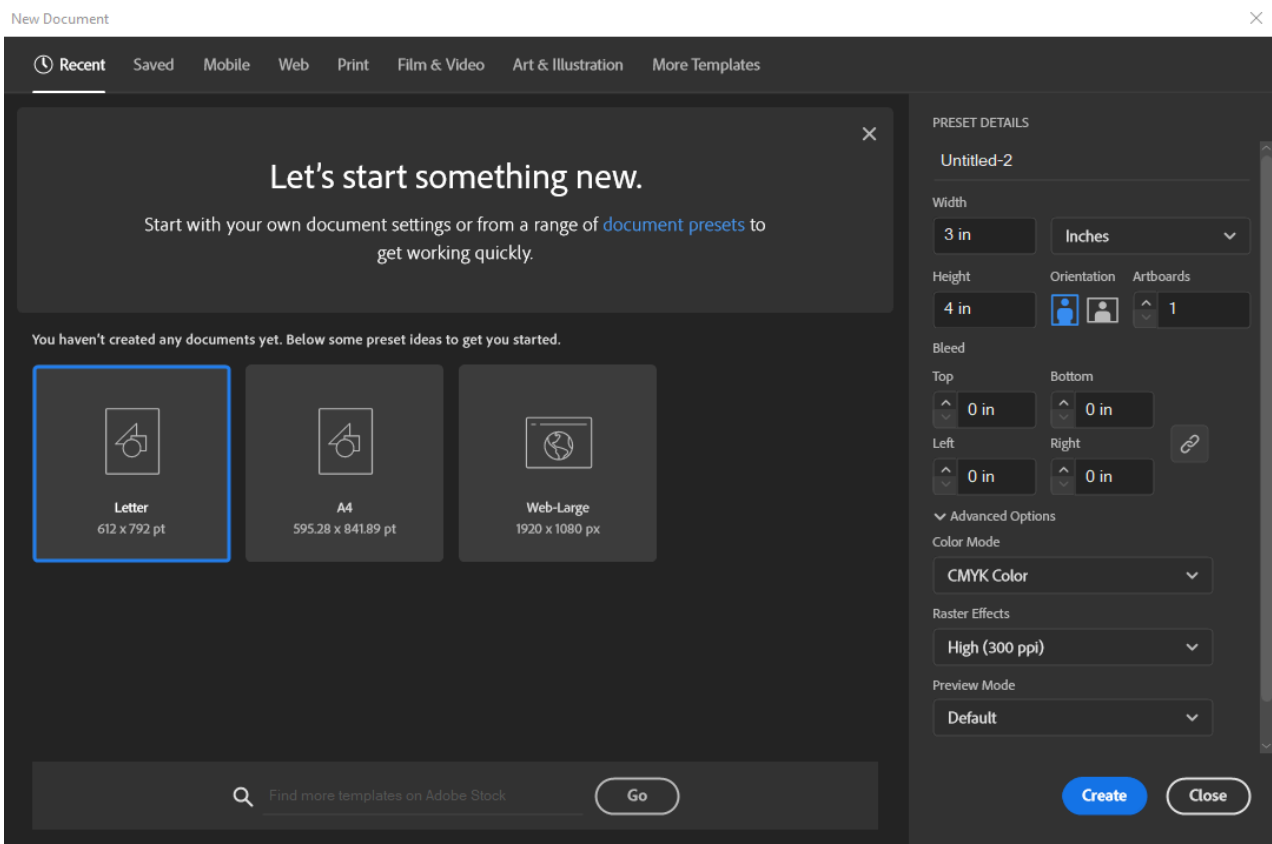
## Specifications

- **Materials:** Heat Transfer material or Generic printable vinyl
- **Software:** Adobe Illustrator
- **File types:** Adobe Illustrator Ai file
- **Production time:** dependent on the project scale

## Setting Up Your Document in *Adobe Illustrator*

### Creating Document Settings

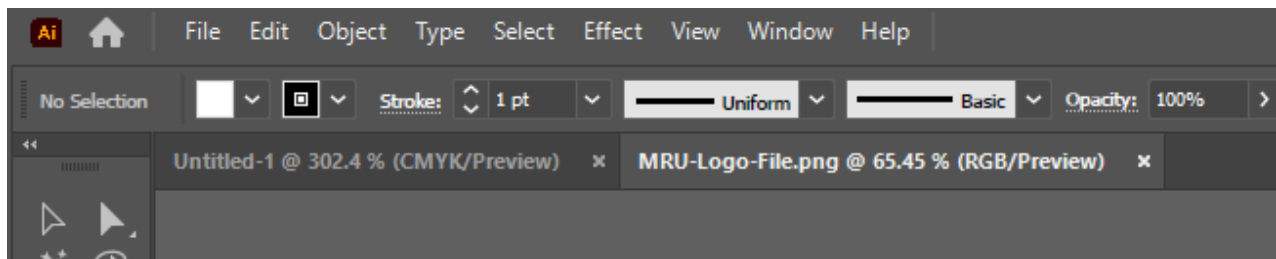
1. Open Adobe Illustrator. Click **"New File"** and name the file in the top-right corner under "Preset Details".
2. Make the size of the document similar to the size you want your printed item to be physically. The size of the design in the software will be the same size that the design prints as.
3. Under "Color Mode", choose **"CMYK Color"**. CMYK is the setting used for printed designs (Cyan, Magenta, Yellow, Black), versus RGB is the setting used for digital designs (Red, Green, Blue).
4. Click **"Create"** once the document has been adjusted to the proper settings.



## Importing Designs into CMYK Document

Once your CMYK document has been created, import your photo or design into it. You can import it directly, however issues may occur where the Adobe file does not link to the original photo properly. If this happens, the Roland printer may be unable to print the design unless we also have the original photo on the same computer. To avoid this issue, follow these steps to import the design properly:

1. In Adobe, go to **"File"** then **"Open"**. Choose your image/design from the desktop and click **"Open"**. The image/design will then open as a separate tab in Illustrator, which is an RGB document:



2. Click on the image so that it is entirely selected. On the keyboard, use **Ctrl + C [Or Command + C for Mac]**. This will copy the image.
3. Go back to the CMYK document that you created by clicking on the tab on top (CMYK/Preview).
4. Click once on the document, then on the keyboard use **Ctrl + V [Or Command + V for Mac]**. This should paste your image into your CMYK Document.

## Resizing Designs for CMYK Document

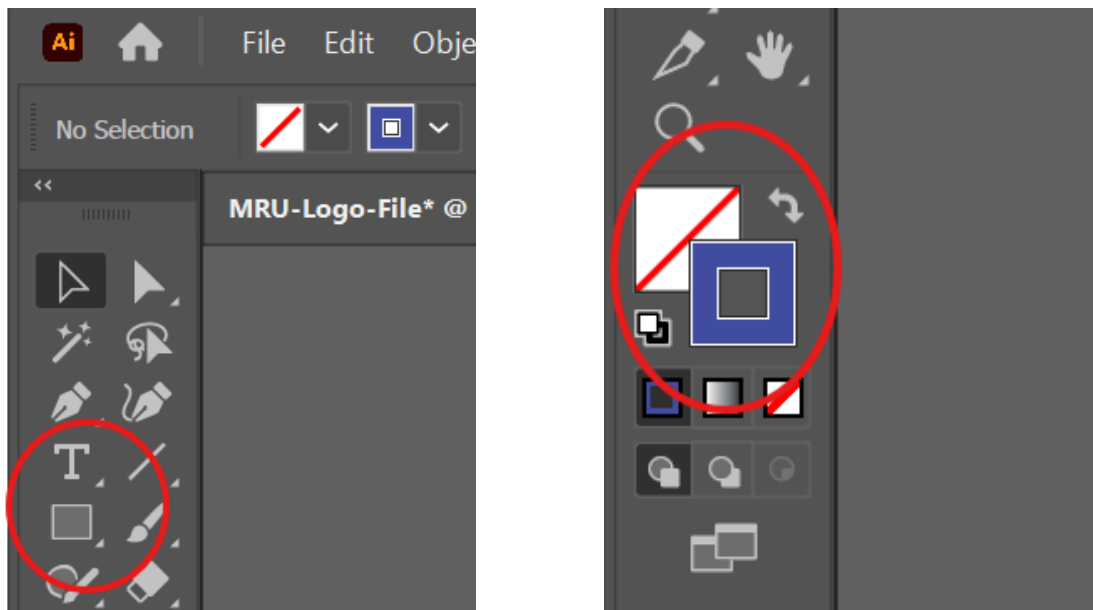
There are times when the image you copy and paste into the CMYK document is too big or too small for your set document, and you need to resize it.

- To zoom in and out of your project window, press and hold **Ctrl** while pressing the **+** or **-** keys.
- To resize an image, click once on the image, then drag the corner handles (small white circles) to resize the image. Hold the **Shift** key as you do this to keep the image proportionate while resizing.
- Make sure that the image is within the document size that was created (within the white square, not going over the edges).

## Adding Cutlines To Your Project in *Adobe Illustrator*

Once you have imported the image into the CMYK document, you can add cutlines. These cutlines communicate to the Roland printer where to add cuts in the file, such as around the border. There are a few ways to do this, but the easiest way is adding cutlines around a set shape, using the shape tool:

1. Click on the Rectangle Tool, located below the Type (T) tool. You can also right click on the tool to choose a different shape. Add a shape around your design.



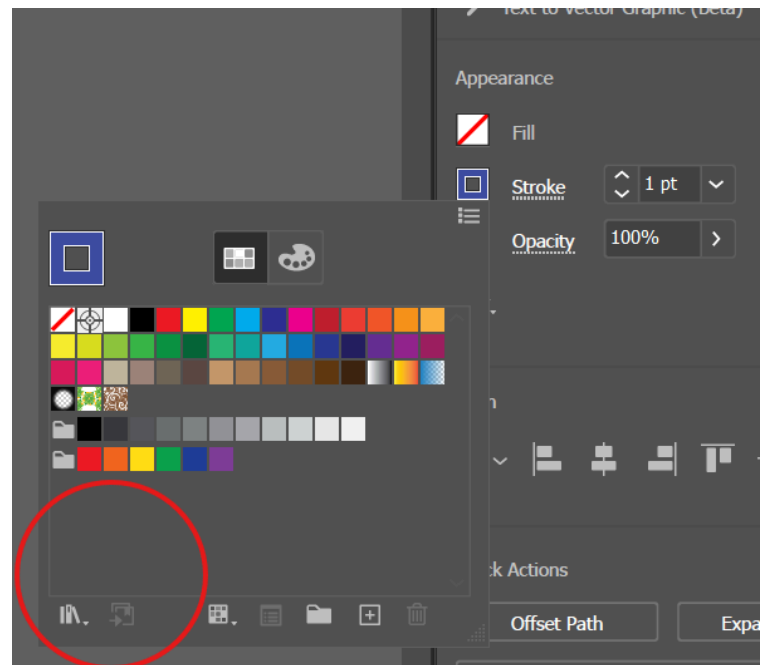
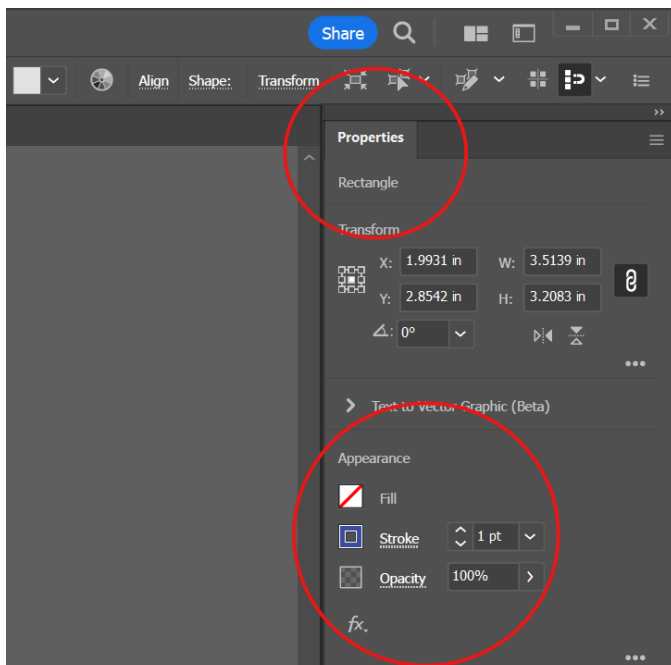
2. Set the "Fill" of the shape to transparent and the "Stroke" to a visible colour. You can use the colour tool to change it so it looks like this:
  - **Fill (square in the top left) is transparent and has the red line through it.**
  - **Stroke has colour. It doesn't matter what colour, as this will be changed.**

You can then adjust the shape so that it is positioned where you want it around your design. Wherever the coloured border is, is where the Roland printer will cut.

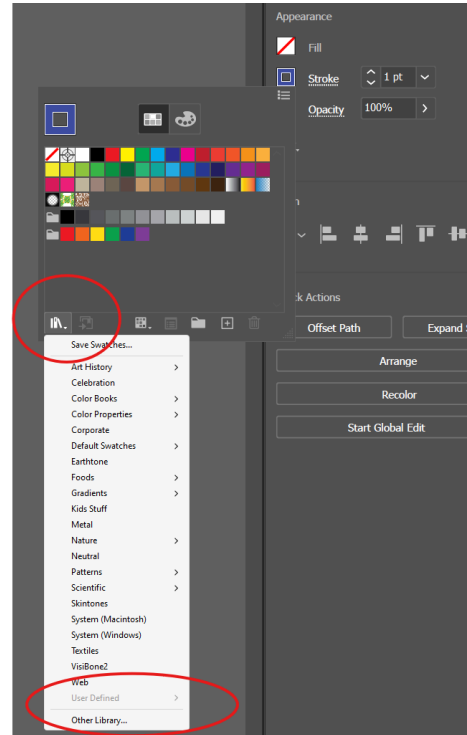
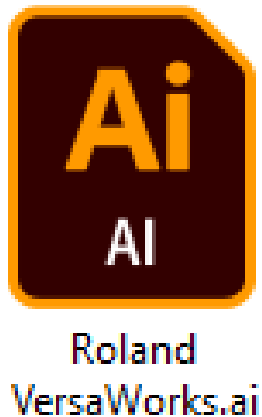
## Using the Roland VersaWorks Swatch: Cut Colour

Once the shape has been properly positioned, you will need to adjust the colour and point size of the shape's outline to ensure proper communication with the printer:

1. Make sure the **"RolandVersaWorks.ai"** swatch is downloaded onto your computer. For most Maker Studio computers, it is on the Desktop. If you need to access it from another computer, it can be downloaded [here](#).
2. In Adobe Illustrator, click once on the shape you created so it is selected. Go to the top right corner of the software under **"Properties"**. There will be a section that says **"Appearance"** and shows the fill, stroke, and pt size.
  - If the Properties panel is not visible, go to the top settings under **"Window"**, making sure that **"Properties"** is selected with a check mark beside it.
3. Click on the **coloured box beside "Stroke"**. A window of colours will appear. At the bottom left of the window, click on the **"Swatch Libraries menu"** button.

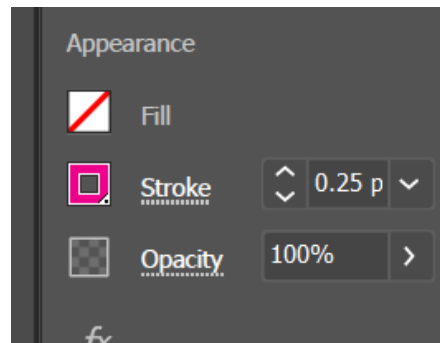


- A list of different swatch libraries will appear. Click on the **"Other Library"** option, and upload the **"RolandVersaWorks.ai"** file by clicking **"Open"**. It should look like this:



- A small window will pop up and show the Roland VersaWorks colours. You can click once on these colours to change your fill or stroke. Use this to change your shape to the proper colour and size settings:

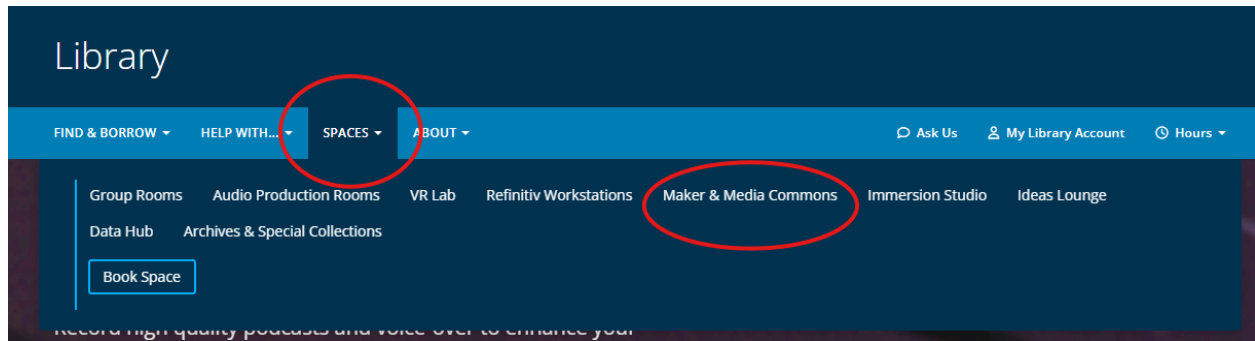
- **Fill:** Transparent
- **Stroke:** CutContour pink
- **Stroke Size:** 0.25 pt



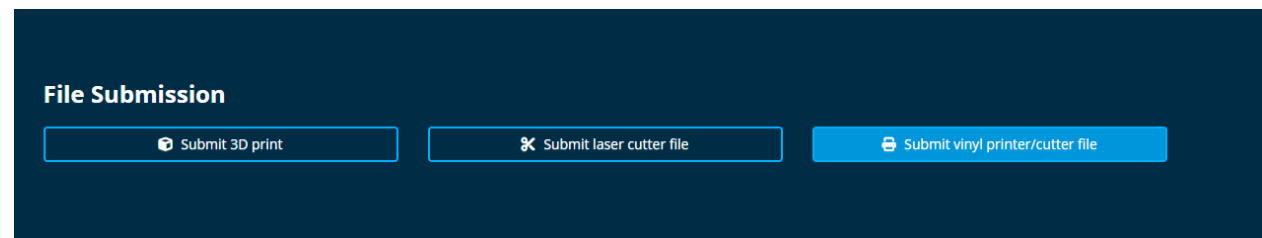
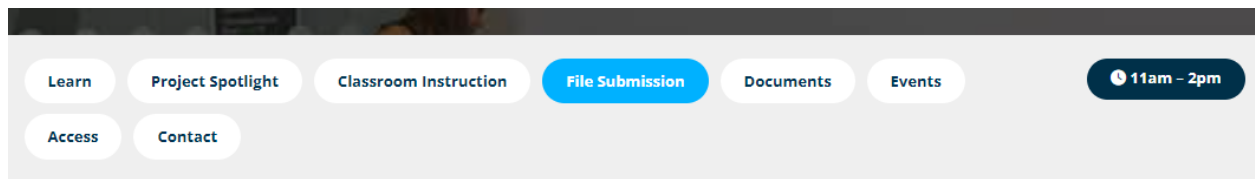
- There should now be a very thin pink outline around your design. **Save the Adobe Illustrator Ai File (File > Save As)** , and submit to the [MRU Library Maker Studio Queue](#). If you have saved this document onto a public computer, please make sure to also save a copy of the ai file to your google drive.

## Submitting Vinyl Prints to the Maker Studio File Submission Queue

1. Go to **library.mtroyal.ca**.
2. Go to **"Spaces" – "Maker & Media Commons"**.



3. At the top of the page, choose **"File Submission"**. This will bring you to the File Submission section of the webpage. Click on **"Submit Vinyl printer/cutter file"**.



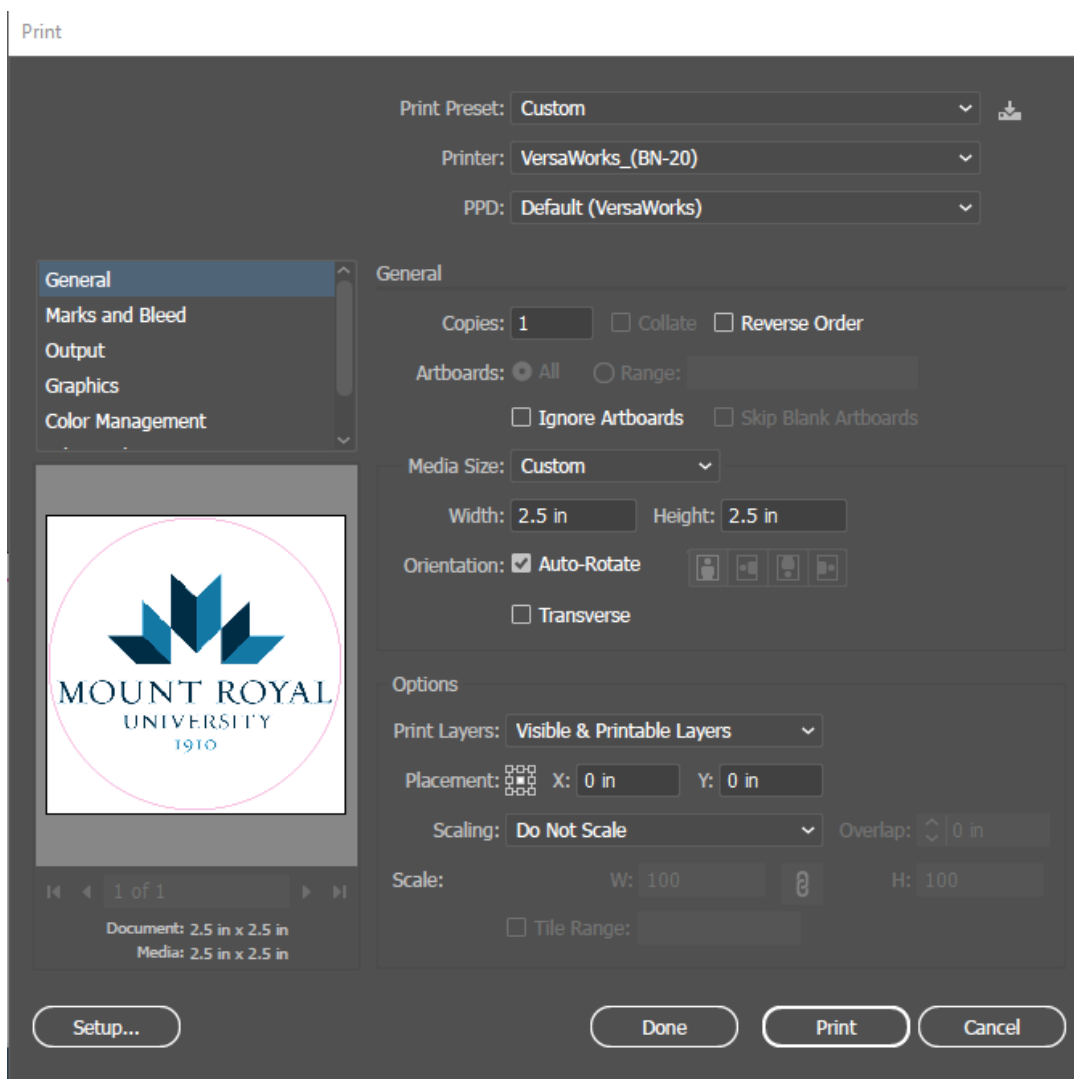
4. Scroll to the bottom of the form and click **"Begin"**. Fill out the information and upload your Adobe Illustrator Ai file. Once you have submitted your design, you will receive an email when your print is ready to be picked up. If there are any issues with the file, someone from the Maker Studio will contact you through the email address submitted in the form.

## Printing to VersaWorks

Download the student's design from the library queue in LibCal to the Desktop. Open the AI file, and make sure the document is CMYK and has cut lines before printing. If they do not, email the student to let them know that they need to add cutlines/submit a CMYK document before we will print their design.

### Sending Print from Adobe Illustrator to VersaWorks

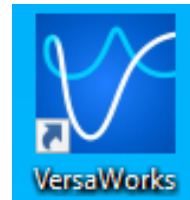
1. From Adobe Illustrator, click **"File"** then **"Print"**. A printing screen will appear.
2. Leave all the settings the same except:
  - **Printer:** VersaWorks\_(BN-20)
  - **Media Size:** Change from **"Defined by Driver"** to **"Custom"**. This adjusts the print area to the document size you established during setup.
3. Click **"Print."**



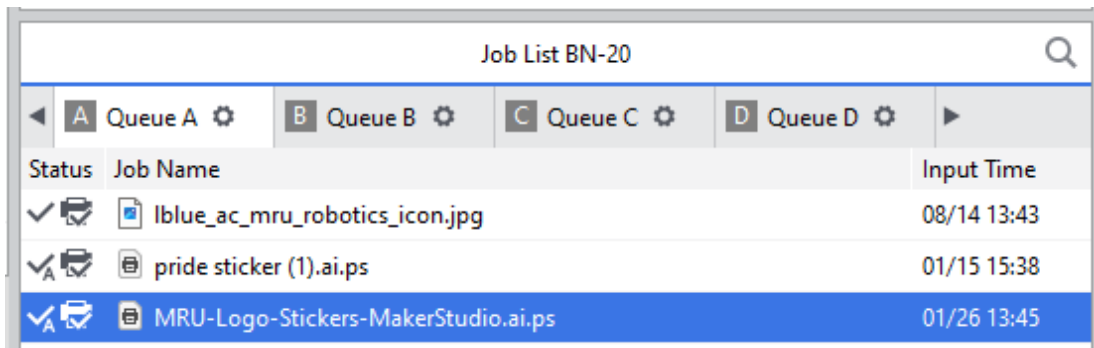
## Printing to the Roland Printer

**Software:** VersaWorks App

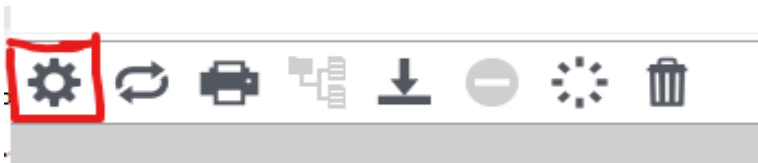
### Sending Print from VersaWorks App to the Roland Printer



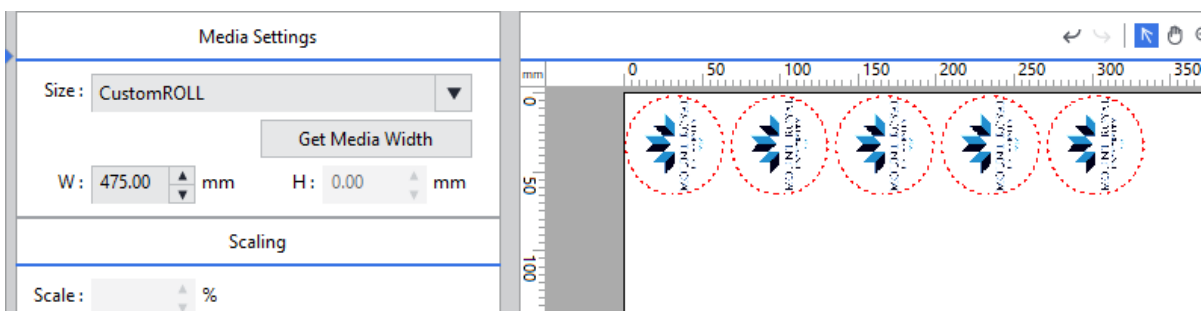
1. Open the VersaWorks app on the desktop.
2. The print from Illustrator should appear in the left column at the bottom of the job list. Click on the desired print once so that it is highlighted blue.



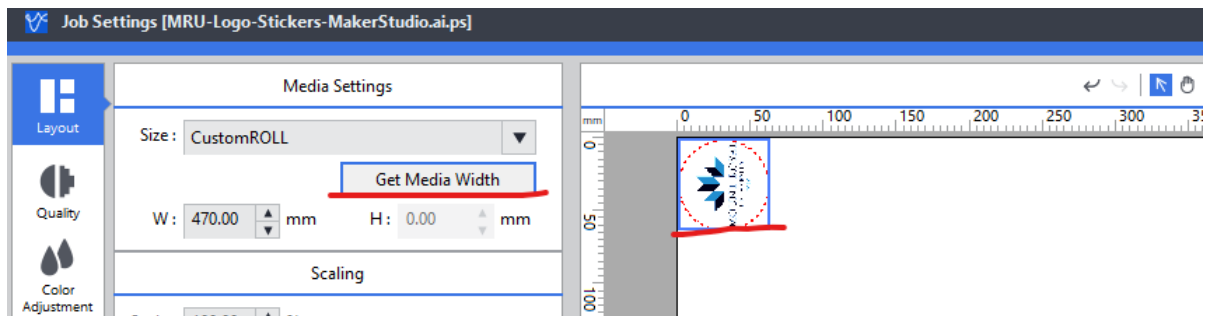
3. Once it is highlighted, click on the gear icon at the bottom of the app window. It will open up a new printing tab.



4. Make sure that the cutlines on the print have successfully transferred over to the printing software. This is done by checking the design on the right hand side, and verifying that there are a bunch of 'dancing ants', or **dotted lines that are moving around where the cutlines had been set**.
  - o If there are no red moving dots around your design, it means the software did not register the cutlines, and you will have to go back into Adobe Illustrator to re-add or fix them.



5. Click once on the design so that it has a blue box over it.
6. Once the design is highlighted, click **"Get Media Width"** in the top of the left column, under "Size". This will measure the width of the paper and proportion it to the size of your design. **This must be clicked in order to make the design the right size.**

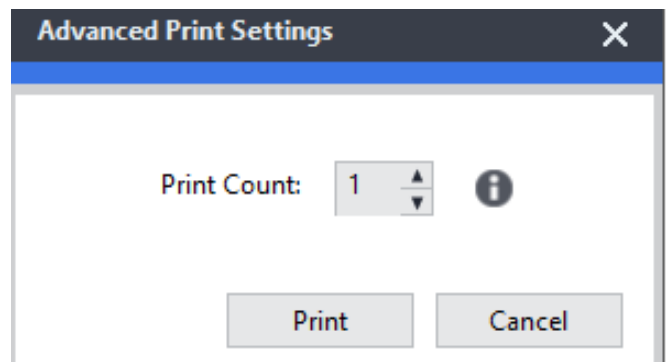


7. To add more copies of the same design, increase the number besides **"Copy"**, under **"Print Properties"**.
8. Click "Get Media Width" once more to confirm the dimensions, then click "OK" to exit from the pop-up screen. The design should appear in the left column, and you should be able to actually see your design in the right column at the bottom of the queue.

9. Make sure the chosen print job is still highlighted blue, then click the printer symbol at the bottom of the app window to start the printing process.



10. A small window labeled **"Advanced Print Settings"** will appear. Make sure the Print Count = 1, then click **"Print"**.



11. The printer will begin making noise a few moments later to start the print.