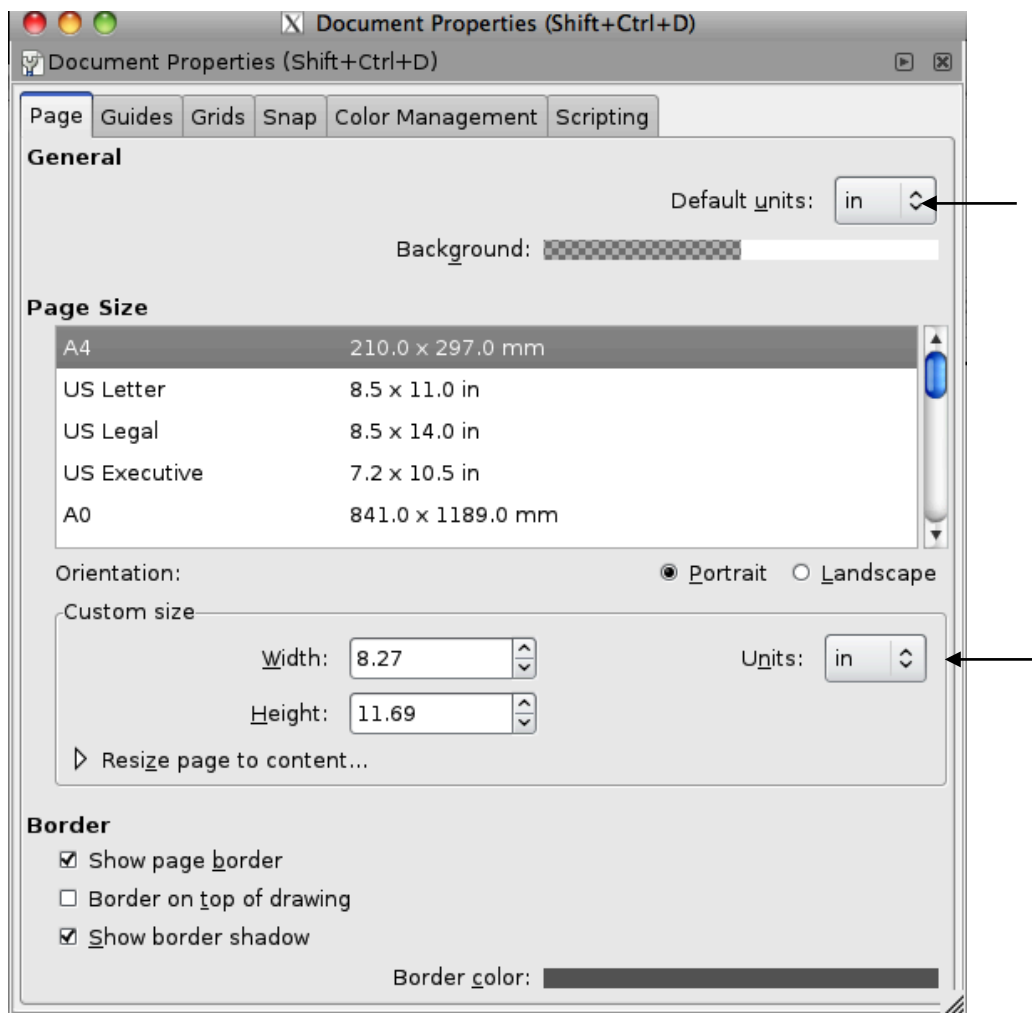# Using Inkscape for the Vinyl Cutter

Inkscape is a free and open source vector graphics program comparable to Adobe Illustrator or Corel Draw. There are countless tutorials on the web showing how to create and edit graphics for a variety of purposes. This tutorial will focus on getting an image ready to cut on the vinyl cutter.
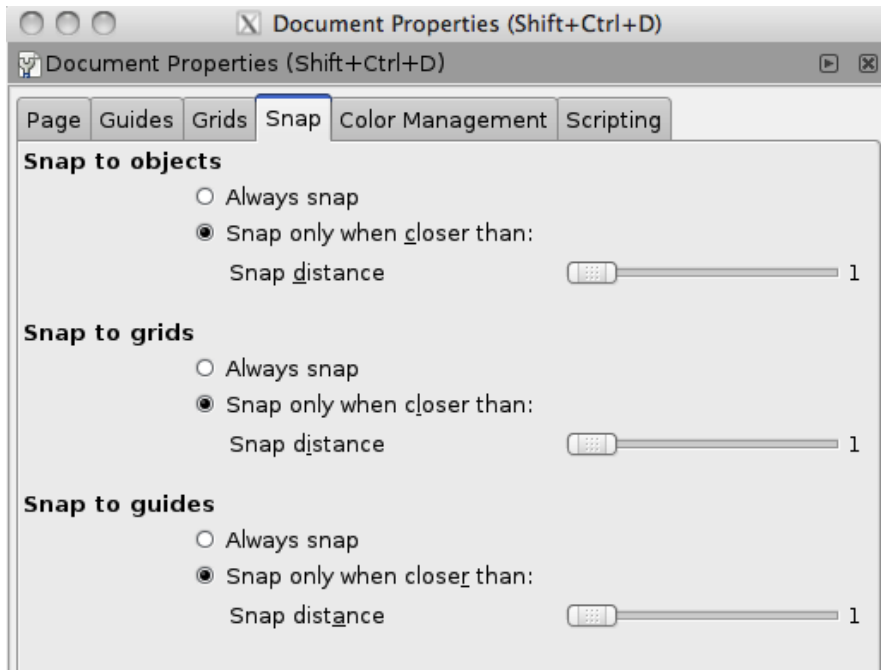
Find the Inkscape icon   and launch the application. A dizzying array of

tools and icons and a blank page border will appear. By default, Inkscape uses pixels as the units, we want to change this to inches. Choose "File, Document Properties" and set both the Default Units and Page Size to inches.

While we're here, look at the Grids tab, click New and you will see the options that will turn your Inscape page into graph paper which, though not necessary for this project is helpful for certain projects.

In the Snap tab, I suggest you slide all of the snap settings all the way to the left for this project and in general unless you are using a grid for a complicated design.

Close the Document properties window to get back to the main screen and find the three magnifying glasses grouped together . These will be your best friends in Inkscape. From left to right, they zoom in to fill the screen with a selection, an entire drawing, or the page. Since there are no limits to the size of an image that you can draw in Inkscape, it's easy for your drawing to get lost. To see this, scroll in one direction or and watch the numbers on the rulers get larger and larger. The right hand magnifying glass will get you safely home every time.

Creating Text

Select the text tool, choose a font that you like, set the size to 56, click inside the page border and type your initials (or some other appropriate 3 letters).
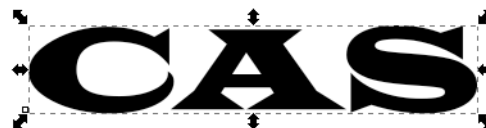
Switch to the arrow selector and notice the change in the text, indicating that the text is now being treated as an object, meaning it can be resized, rotated etc. You can switch back to text tool for text editing.
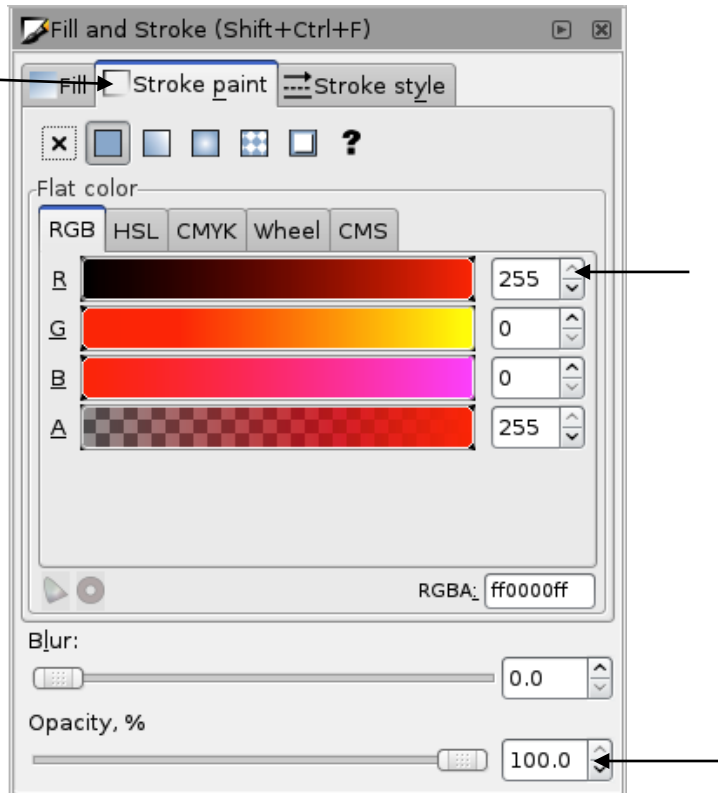
Text Tool: Arrow Selector

Use the Object, Fill and Stroke menu to remove the fill and add stroke.

First select the stroke tab to draw the outline (any color will do)

Fill and Stroke (Shift+Ctrl+F)

Fill | Stroke paint | Stroke style

Flat color

RGB | HSL | CMYK | Wheel | CMS

R | 255
G | 0
B | 0
A | 255

Then select the Fill tab and "X" to get rid of the interior

RGBA: ff0000ff

Blur: | 0.0

Opacity, % | 100.0

Text created with a text tool is not automatically in the vector format (also called a path) that the vinyl cutter needs. To make your text a path, choose "Path, Object to Path"
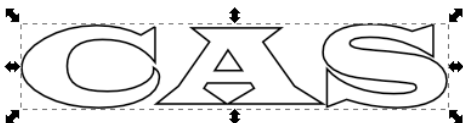
Nothing will appear to change until you switch to the node selector [icon] when the individual nodes become visible.

Note: Once you convert to a path, you will not be able to edit with the text tool!

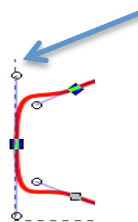Arrow Selector: Node Selector:

Nodes are control points for the image, allowing you to dramatically change selecting individual nodes and changing the node type dragging the nodes "handles"

:

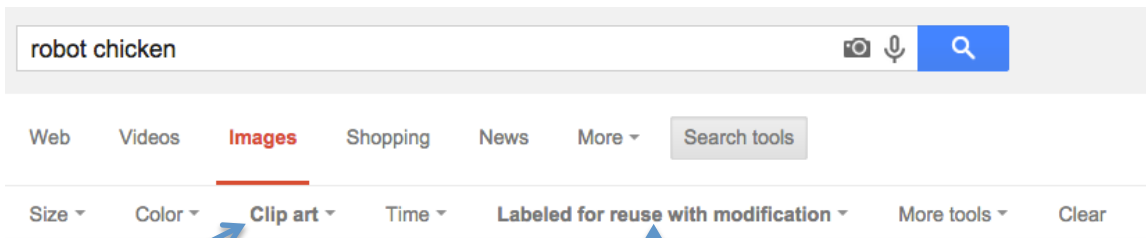Node type icons: Node handle

Text notes:

- you can add nodes by double clicking on the line where you want a new node
- to move an individual letter, select the letter with the node selector, choose "Edit, Select All" or (Ctrl A), then move
- Undo changes you don't like with "Edit, Undo" or (Ctrl Z)
- Even if you don't alter the shape of text, it is still a good idea to change the text to a path if you are designing on a different computer than the one that drives the cutter. Fonts are machine-specific and there is no guarantee that two different computers will have the same font library.

When you have something you like, make sure that you save it!

3) Add an Internet Image using Google Images

In Google, type something you want to find an image for

robot chicken		📷 🎤 🔍

Web   Videos   **Images**   Shopping   News   More ▾   [Search tools]

Size ▾   Color ▾   Clip art ▾   Time ▾   Labeled for reuse with modification ▾   More tools ▾   Clear

Type: Clip art or Line Drawing   Usage rights (for the copyright police)

When you find an image, right click (or Ctrl click on a Mac)

Open Link in New Tab
Open Link in New Window
Open Link in Incognito Window
Save Link As…
Copy Link Address

Save Image As…
Copy Image URL
Copy Image
Open Image in New Tab
Search Google for this Image
Print…

and choose "Copy Image" .

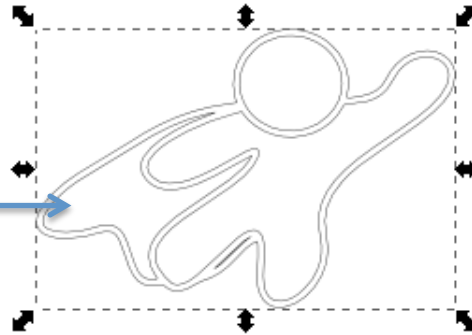Go back to Inkscape and "Edit, Paste" (Ctrl v).

To make the image a vector, select it with the Arrow Selector and choose "Path, Trace Bitmap." Brightness Cutoff is the best mode to use, you can select update and play with the threshold for intricate designs, but for this exercise you should get a pretty good result by just using the default settings.

Note: On most Windows machines that makes the "Update" button not work. Selecting "OK" will execute the trace, you can undo it and go back to change the threshold if you're not happy with the outcome.
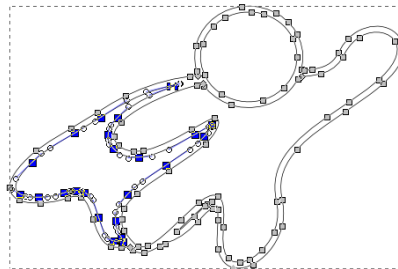
The vector copy will be stacked on top of the original graphic, drag the image to separate the two. Use the Node Selector to confirm which image is a vector and delete the original, non-vector image. In the Fill and Stroke menu, add stroke and remove the fill so that you can see where the lines are located. Delete any unnecessary lines by selecting and deleting individual nodes or selecting all nodes in a given path:
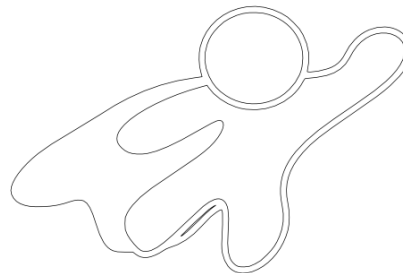
Example:

If you want the cape to be solid instead of an outline

Use the Node Selector to choose any node on the inner path of the cape, choose "Edit, Select all" (or Ctrl A) and hit the Delete key.

The cape will now be a solid color.

Sizing the image

Select the image with the Arrow Selector and note the size in the toolbar.

Closing the lock icon maintains the proportions of the image. You can either drag the arrows that surround the image, or type in a specific value for the height or width to resize.
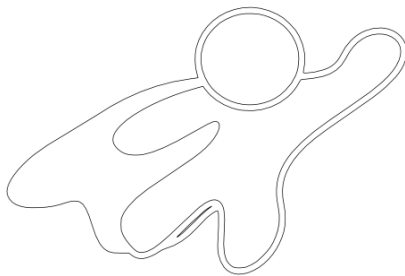
Duplicating the Image

If you want to make multiple copies, choose "Edit, Duplicate" **not** Copy and Paste . Duplicating makes a vector copy, copy and paste does not. When you duplicate, the new image will be stacked on top of the original, drag it to where you want it.
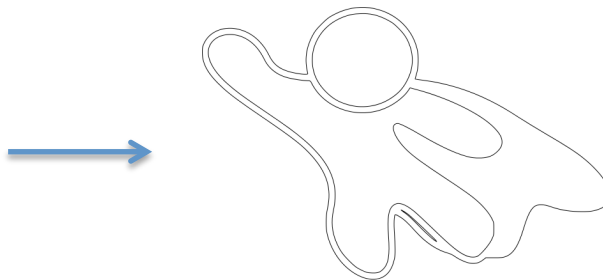
Get Ready to Cut!

If your design is to be cut on heat press vinyl, you **MUST REVERSE THE IMAGE.** Select the image with the arrow selector and click the Flip Horizontal" icon.

Original: Reversed:

It's good practice to resize the page in Inkscape to fit your image. Choose "File, Document Propeties" and in the Page tab, select "Resize page to content, and then "Resize page to drawing or selection"

Save your file to a flash drive or Dropbox/Google Drive folder and get in line at the vinyl cutter.