SCAL6 Using the Draw Tool for Manual Tracing - Expanded Tutorial

- This tutorial covers how to use the **Draw Tool** to manually trace an image.

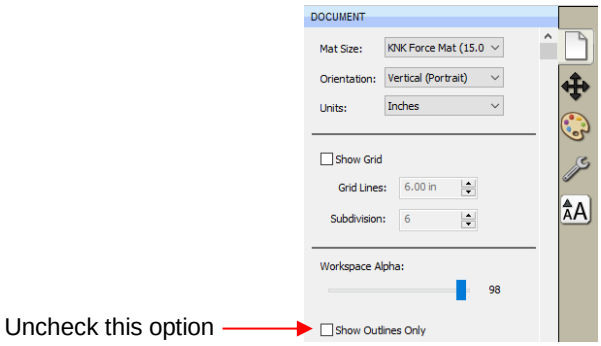
5.05 Manual Tracing of an Imported Image

- Sometimes the quality of an image will fail to yield a good auto-trace. It could be that the image is too small or too detailed. If the image is important to you, then manually tracing offers another option for conversion to a vector cut line.

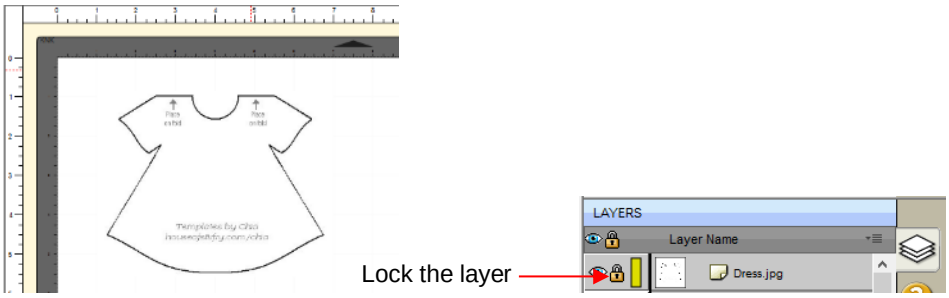
- The easiest way to manually trace a raster graphic is using the **Draw Tool** presented in *Section 5.04.1.* However, instead of trying to create the Bézier curves as you go, it's faster and easier to simply and quickly click, click, click around the image placing a node wherever the path changes directions. Then you can go back and manually move nodes and drag curves to fit the original image. This process is presented in the next few subsections.

5.05.1 Importing an Image for Manual Tracing

- Since you won't be trying to auto-trace the raster image, use **File>Place Image** to import it onto the **Cutting Mat**. In this tutorial, the *Dress.jpg* file shared at the link in *Section 5.03* will be used.
- While this dress could easily be auto-traced, it provides a great example of how the **Draw Tool** can be used to fit a shape such as this. So, it will be used for the manual tracing example.
- In order to see the image, make sure **Show Outlines Only** is not checked on the **Document Panel**:



- To avoid inadvertently selecting the image while tracing, lock that layer on the **Layers Bar**:



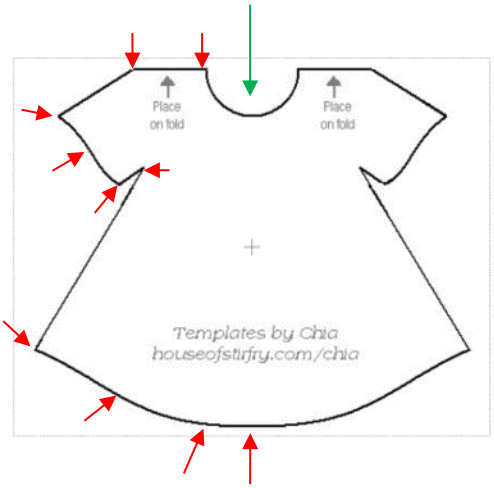
5.05.2 Tracing Using the Draw Tool

- Make sure you have read *Section 5.04.1* to learn how to comfortably and successfully use the **Draw Tool.**

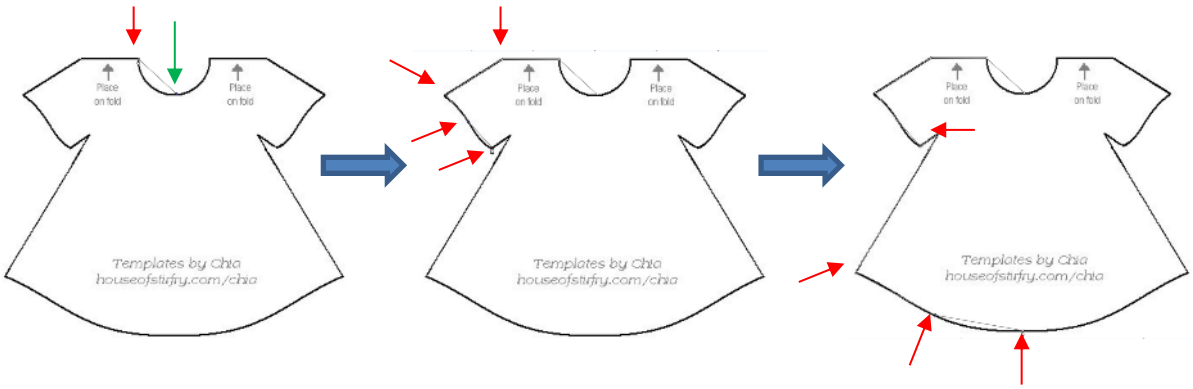
- Now, the best method for tracing a symmetrical image is to only trace one half. Then you can make a copy of it, mirror the copy, and weld the two together to create a perfectly symmetrical shape. This is what will be done in this case because the dress is symmetrical.
- Before beginning the trace, visually note how many changes in curves and straight lines exist. This will help you understand where to click as you work around the image. But don't overthink it. Remember that you can add nodes, delete nodes and move nodes during the editing process:

Trace will begin and end at the middle of the neckline, moving counter- clockwise around the dress.

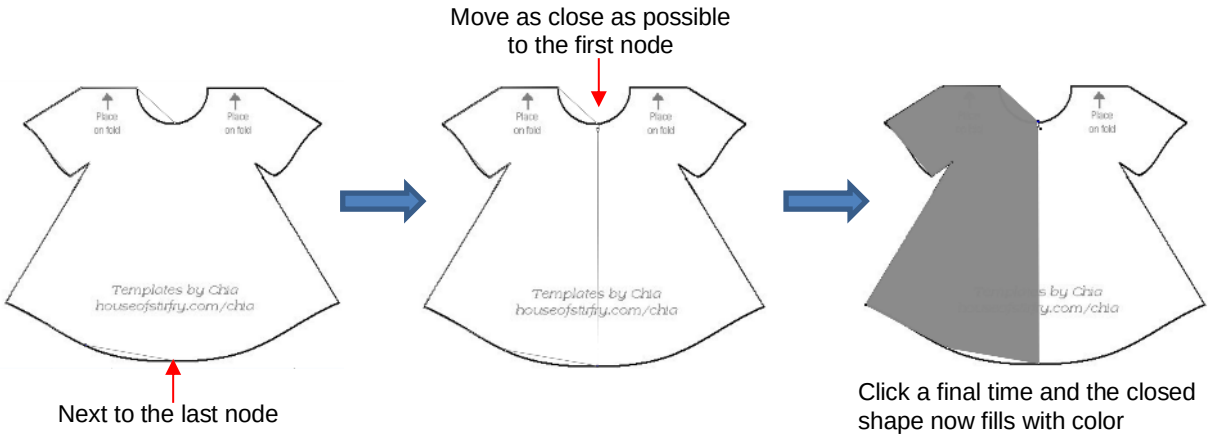
Red arrows indicate where a change in direction or curvature occurs



- The process is as follows:
  - ◊ Zoom in as close as possible, but make sure the entire image can still be seen. Click on the **Draw Tool** icon.
  - ◊ Left-click once in the middle of the neckline (see green arrow below). Then click at each point where the curve changes. A series of straight-line segments will be made, one right after another:



  - ◊ Once you've reached the next to the last node, click as close as possible on the first node and the shape will close and fill with color (based on the color currently assigned on the **Fill & Stroke Panel**

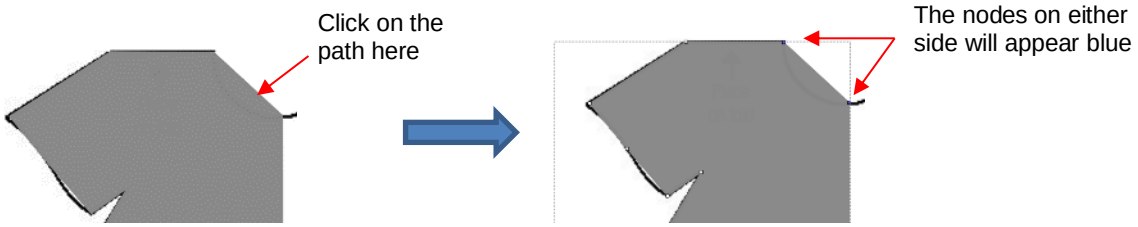


5.05.3 Editing the Trace

- The next step is to move nodes and convert any straight lines into curves, as needed. This is done using the **Shape Tool** which is the 3rd icon on the **Tools Panel**. Note that more details about using the **Shape Tool** will be presented in *Section 6.11*. For now, only a portion of this function's capability is needed.

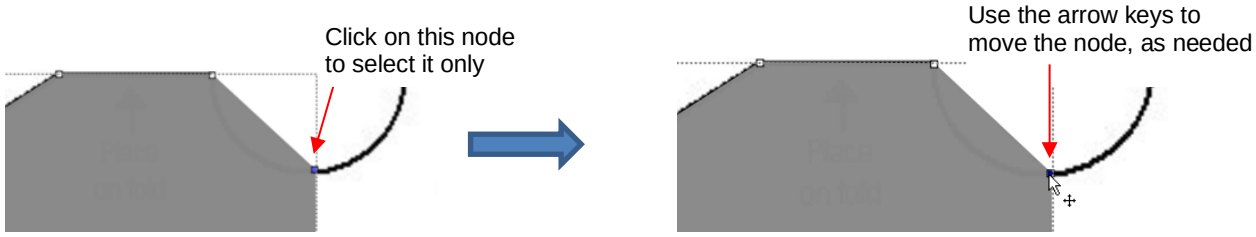
- Using the **Shape Tool** will take a bit of patience and attention. But following the steps exactly as presented should yield successful results:

  ◊ With the **Shape Tool** selected, click on the neckline path. The two nodes on either side will be blue:

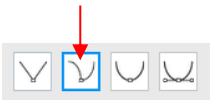


  ◊ If you need to move either node, click on the node to be moved and the other node will turn white. Be very precise in clicking as it is easy to miss the node. If that happens, you will need to click the path again to show the nodes.

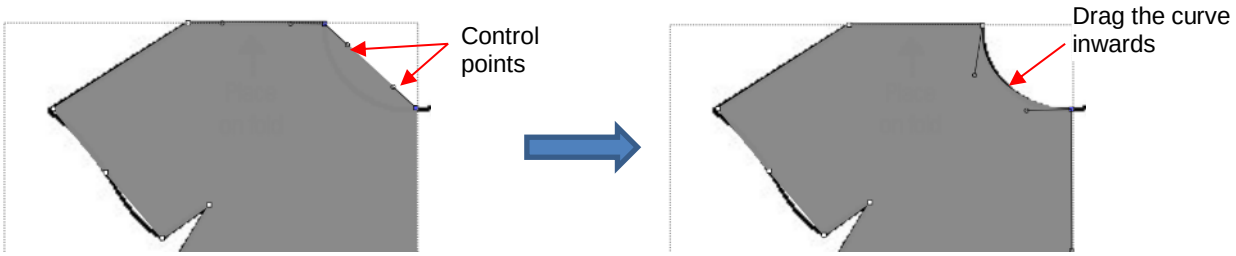
  ◊ Once you have the single node highlighted in blue, you can now move the blue node by using the arrow keys on your keyboard:



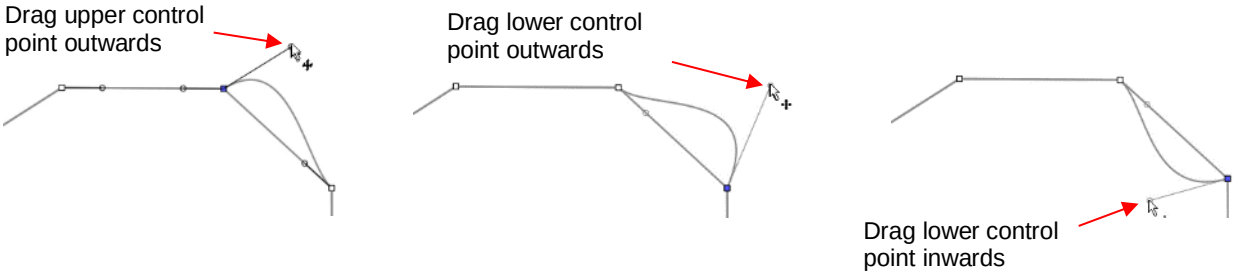
  ◊ Next, click on the second icon on the **Tool Options**:



◊ Then click again on the neckline path and you will see Bézier control points. This means you can now drag the middle of the path inwards to form the neckline:

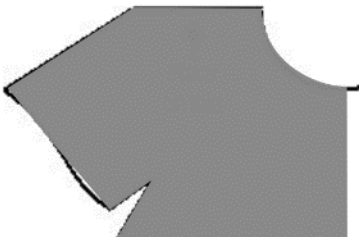


◊ Alternatively, the Bézier control points can also be dragged. This is useful if the curve isn't symmetrical. Here are a few examples of how that curve could be altered:

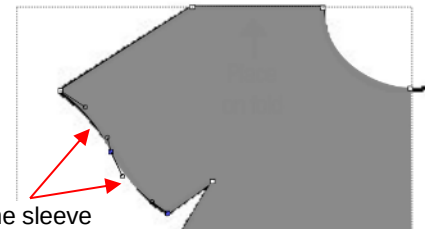


◊ Just like with nodes, when selecting a Bézier control point, you need to click precisely on the little circle. If you inadvertently see all of the nodes disappear, just click on the path again.

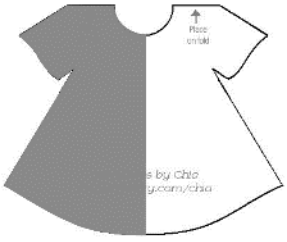
◊ Once the neckline is curved, go over to the sleeve and repeat the process for both parts of the sleeve since one side curves inwards and the other side curves outwards. Again, click on the path, click on the 2nd icon on the **Tool Options**  , click on the path again and then drag the curve:



Before editing

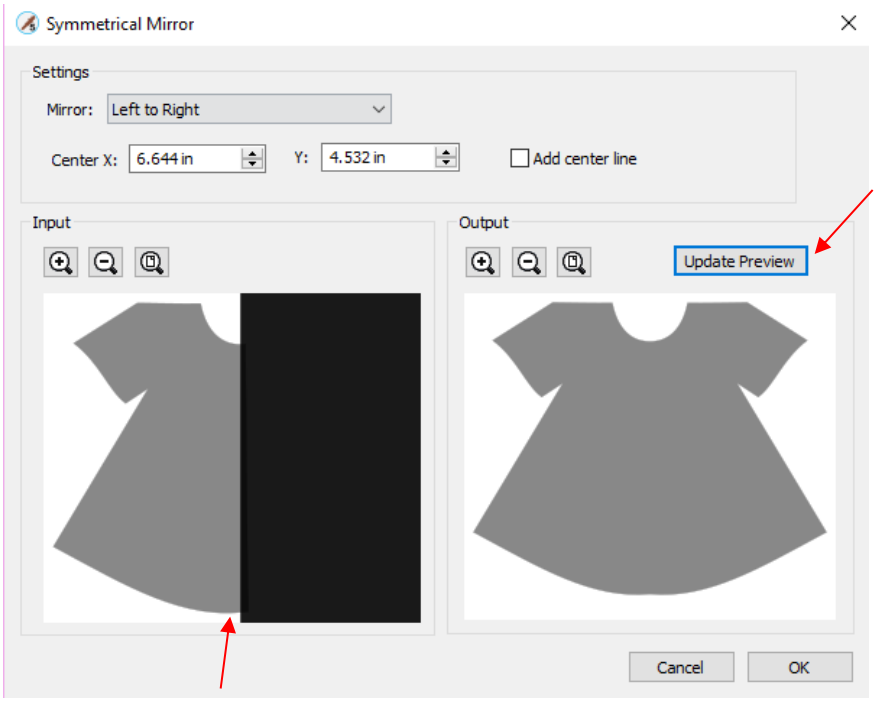


◊ Repeat on the bottom of the dress. The shape you traced should now fit the original image. If it's not a perfect fit, don't worry about it! No one will ever know. ☺



5.05.4 Using Symmetrical Mirror to Complete the Trace

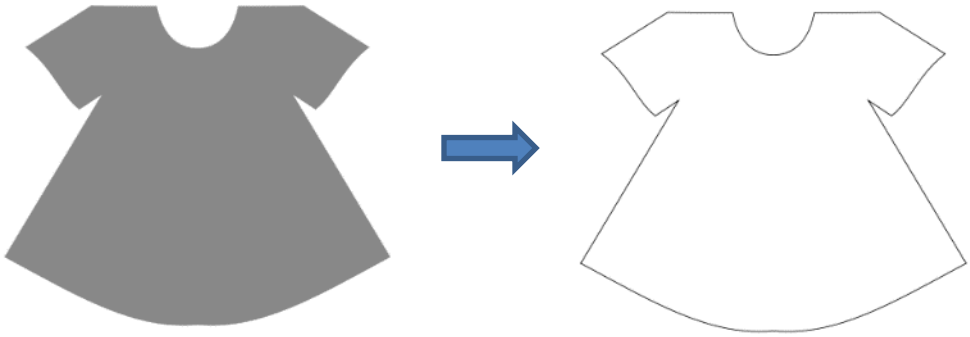
- The final step to complete the dress involves making a mirror image copy and then welding it to the original.
  - ◊ Select the dress and go to **Effects>Symmetrical Mirror**. Increase **Center X** or drag the black rectangle to the right and click on **Update Preview**. Continue adjusting **Center X** until the image is to your satisfaction:



Click on **Update Preview** after each change

Drag black rectangle to desired location (**Center X**)

  - ◊ After clicking on **OK**, the dress is complete and the original image is no longer needed. Turning on **Show Outlines Only** on the **Document Panel** confirms that the symmetrical copy has been welded to the original:



Other applications for **Symmetrical Mirror** are covered in *Section 7.24.*