

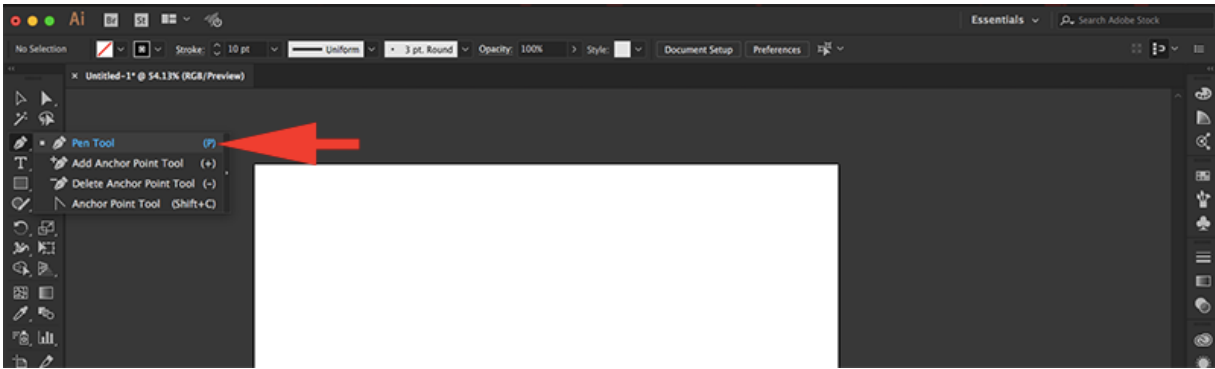
## Illustrator - Pen Tools

The pen tool is a very handy tool we can use in our arsenal for design in Illustrator. There are various pens we can use for different purposes. In this lecture we will cover them all. Using these pen tools we can pretty much achieve any shapes we need and alter any existing shape we may need to in any way we may need to. We can also add points and/or delete points, we can alter points and curves as well. Lets take a look!

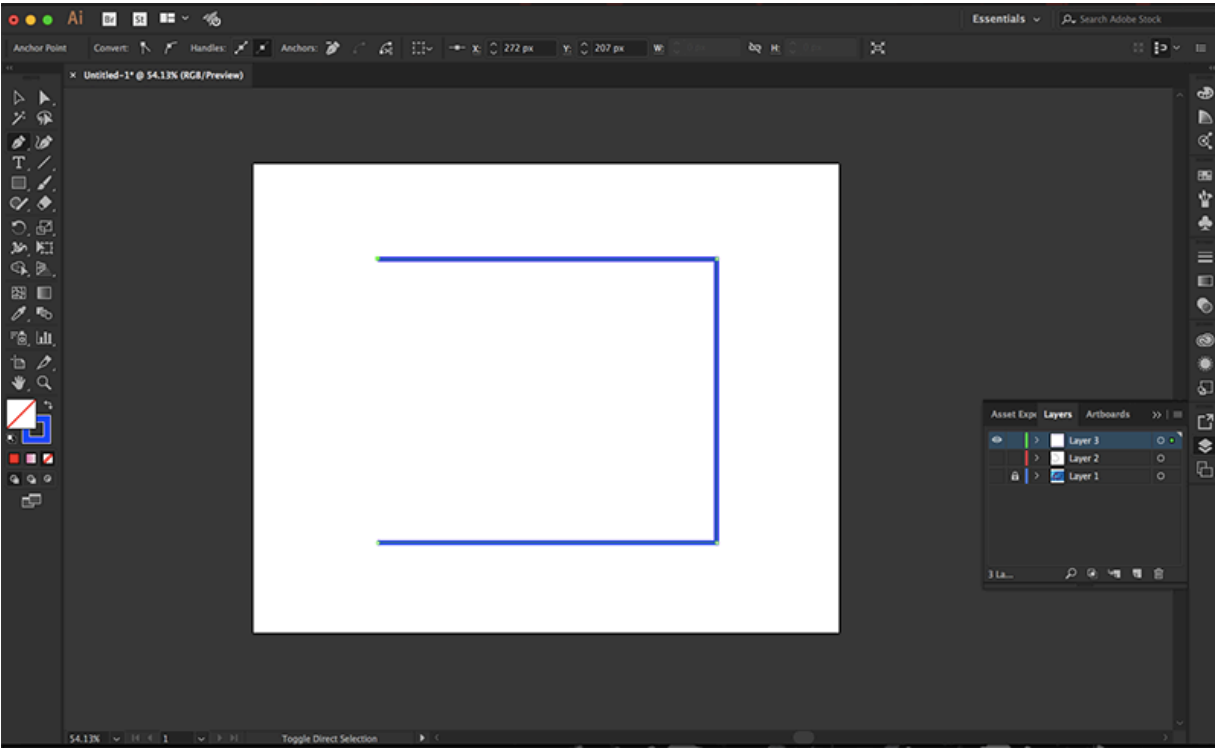
First off. Fundamentally, the pen tool creates a point and a path. You can use this to make straight lines or curved lines, you can also connect these lines and/or paths to each other at the anchor points.

### **Anchor Tool**

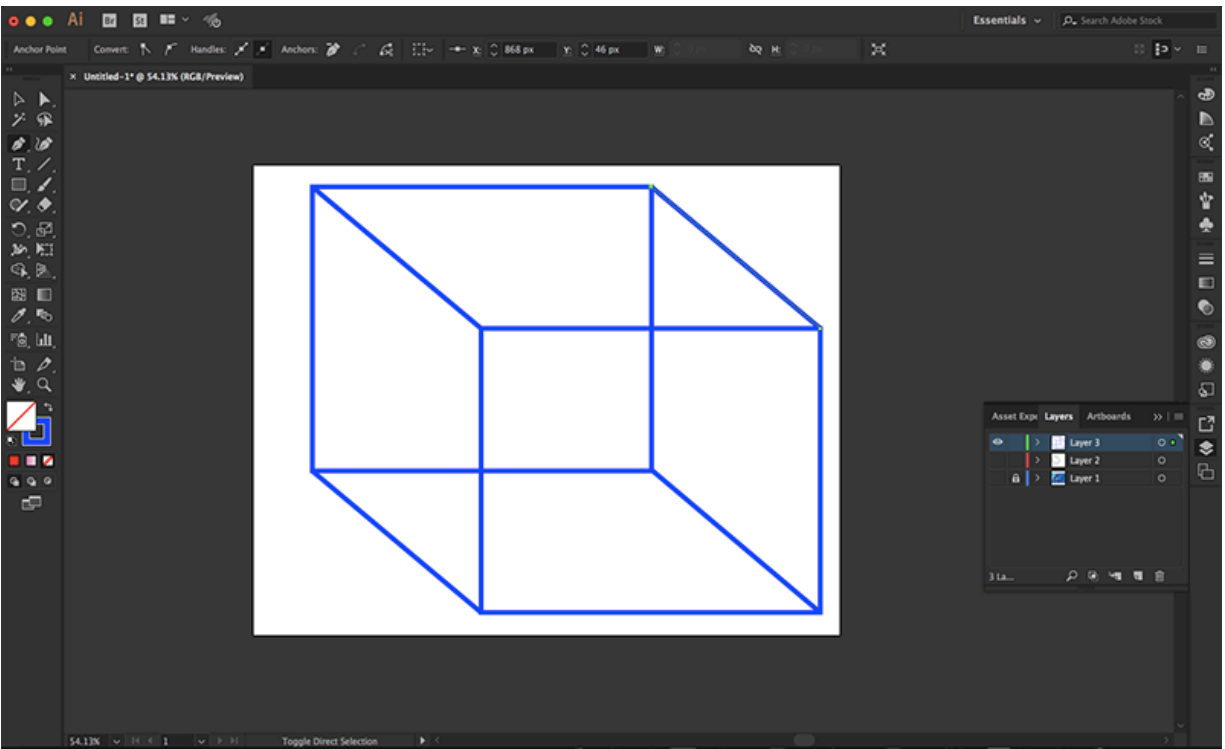
We can get started with the universal pen tool by simply pressing the 'p' key on the keyboard, alternatively we can select the pen tool in the tool bar.



With this pen selected we can begin making shapes. Lets try a couple...

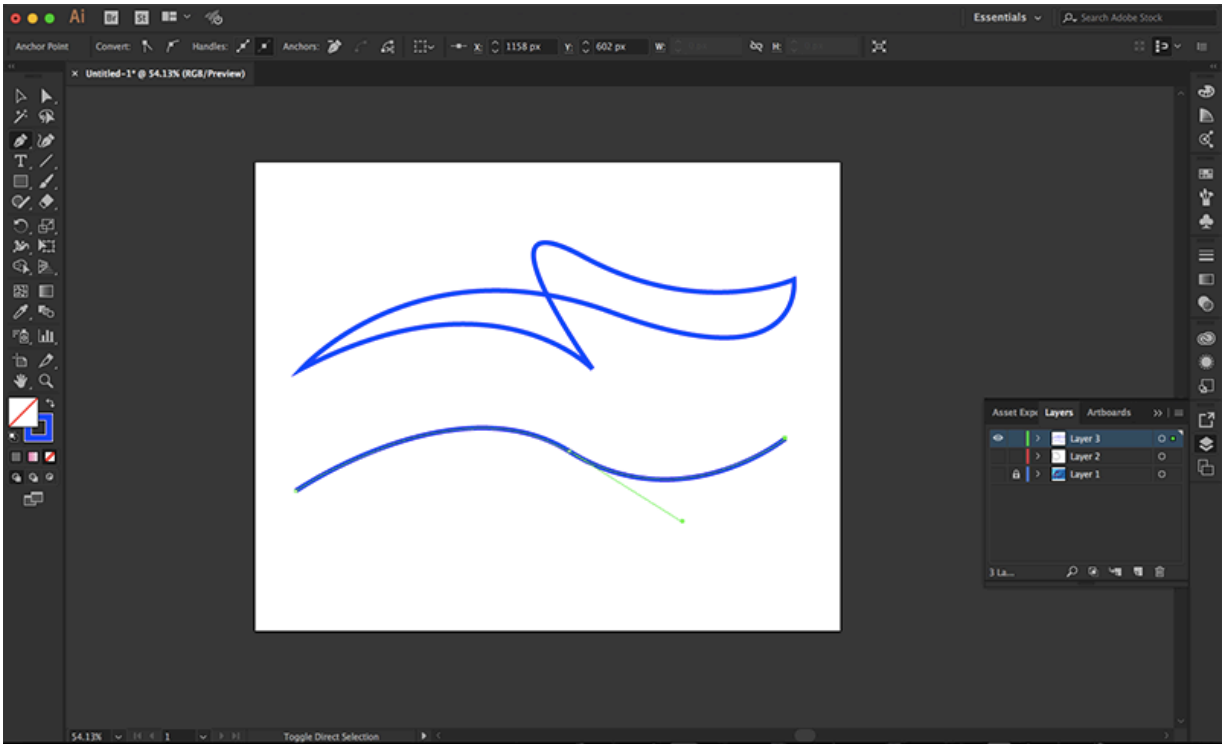
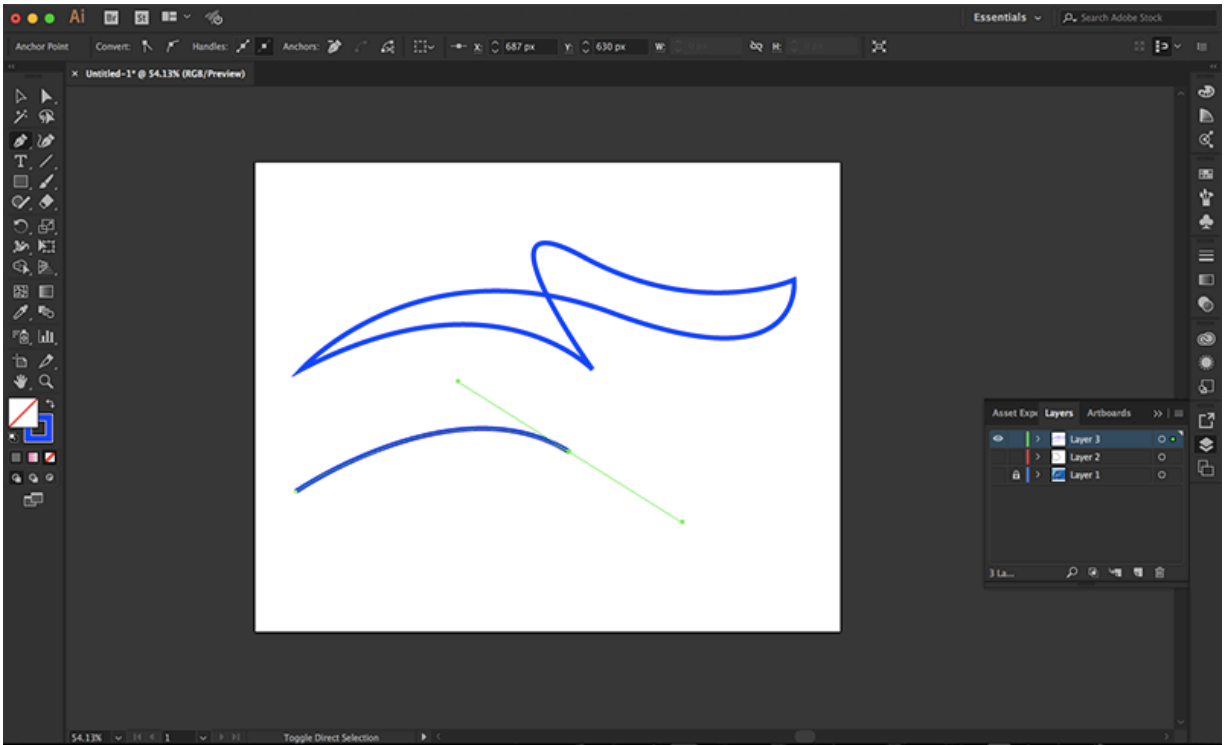


As you can see we can draw straight lines. You can hold the shift button to make sure your lines are straight. Illustrator will also have snap guides while making shapes as well.



We can keep adding lines and attach them to any point we need to to make up any shape we need to.

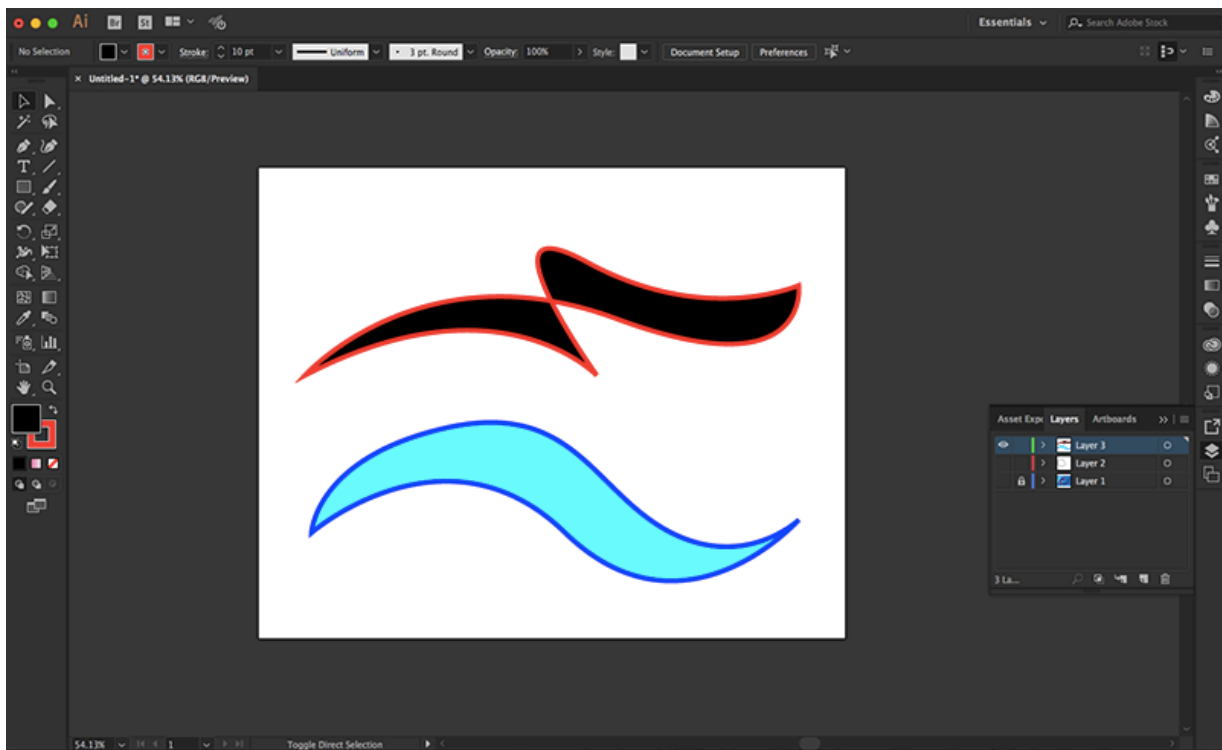
Lets try something more advanced with curves...



Notice that when you click-hold on your anchor

points, when you drag the mouse it will create a curve. You can also hold the shift button again while creating curve lines and the illustrator program will give you snap points for added accuracy.

Once all the anchor points in the object are connected properly, it will act as a shape and can be filled in...

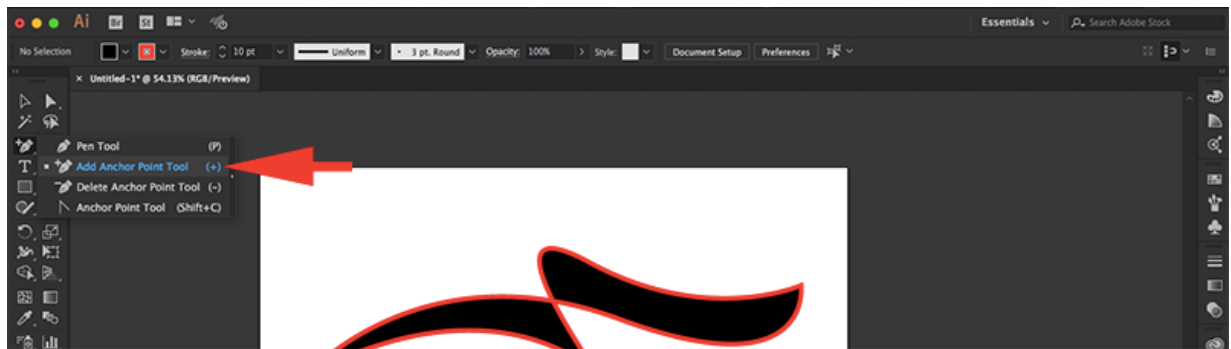


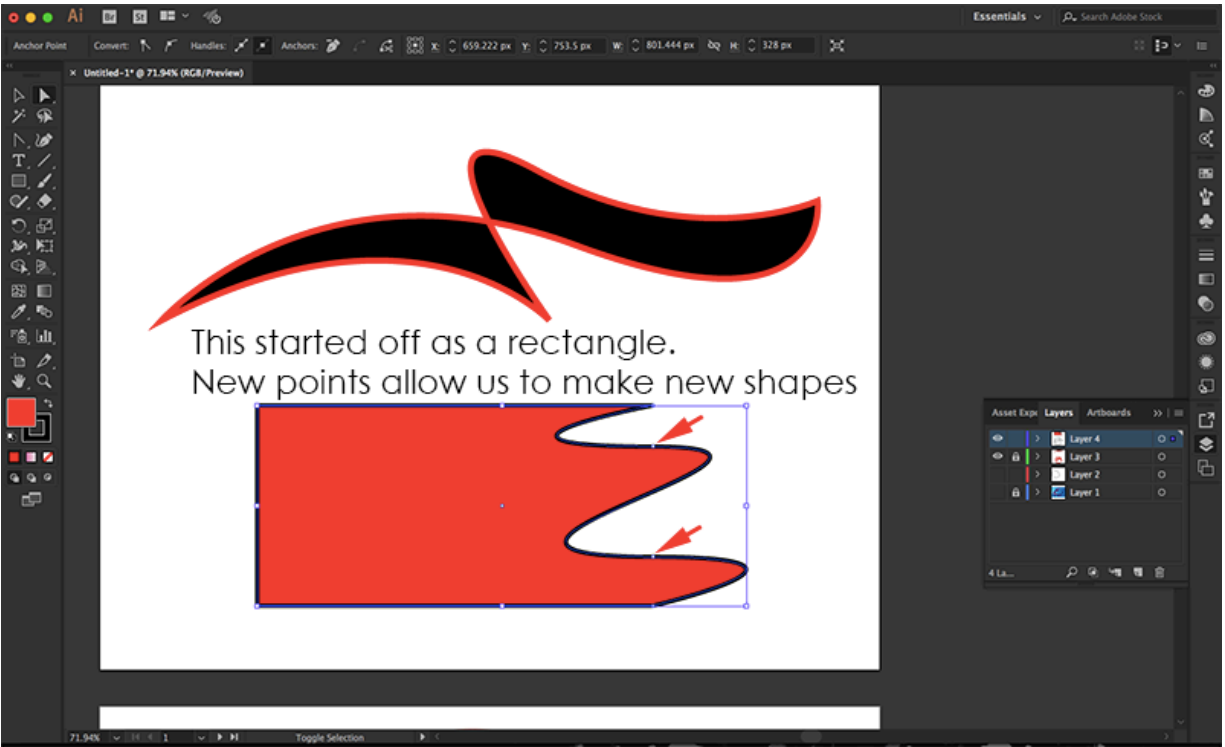
Using the regular pen tool, just as we just did. You will notice that it acts as different pen tools depending on where you are clicking. It can add points as well as take them away. For better control

however we can choose to use the other tools for the specific job.

## Add Anchor Point Tool

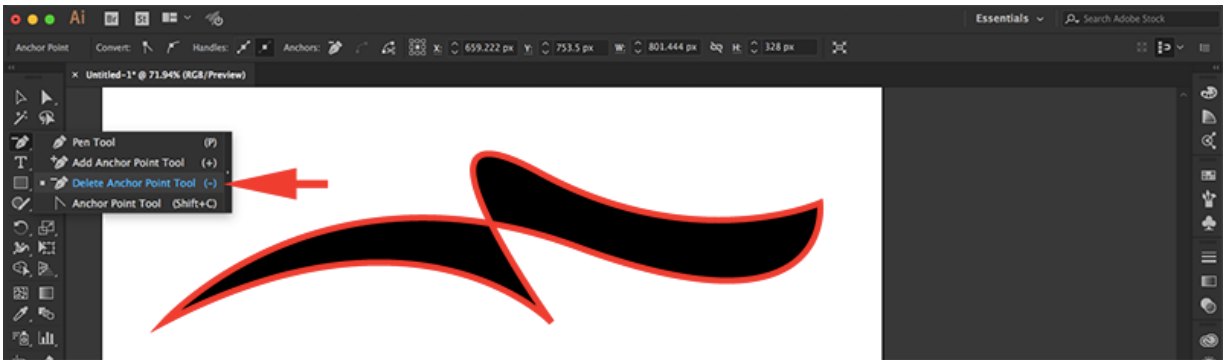
This tool will allow us to add in anchor points where ever we need them. We need this when making more complex shapes or just to fine tune. With this we can add points on any segment of a path but it wont allow you to make fresh points on their own (to make new shapes). You can than use the anchor point tool (which we will discuss in this lecture) to modify it as needed.





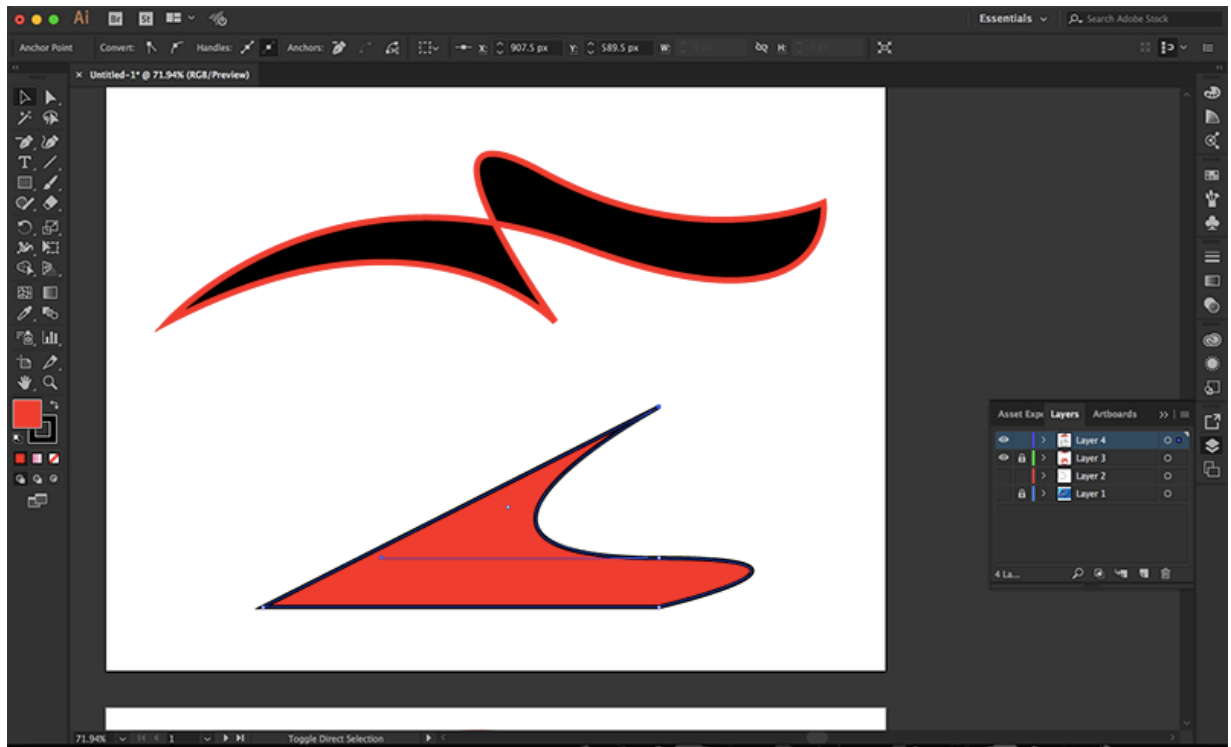
## Delete Anchor Point Tool

This tool will allow you to delete anchor points when needed. Allowing us to create even more shapes from something else...



All we have to do with this tool is click it on any anchor point we want gone! Our rectangle shape

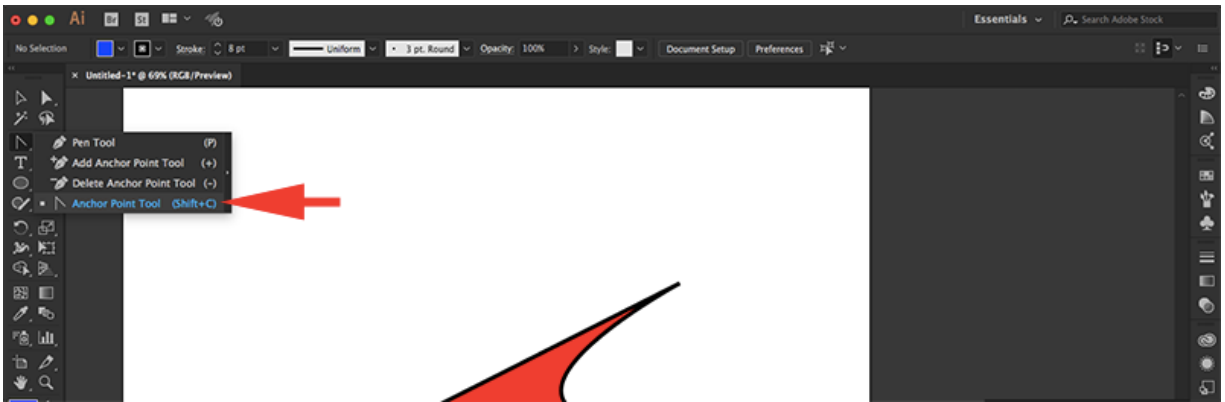
thing is now... A fin? 😊



Which then brings us to our next tool, and a very important tool.

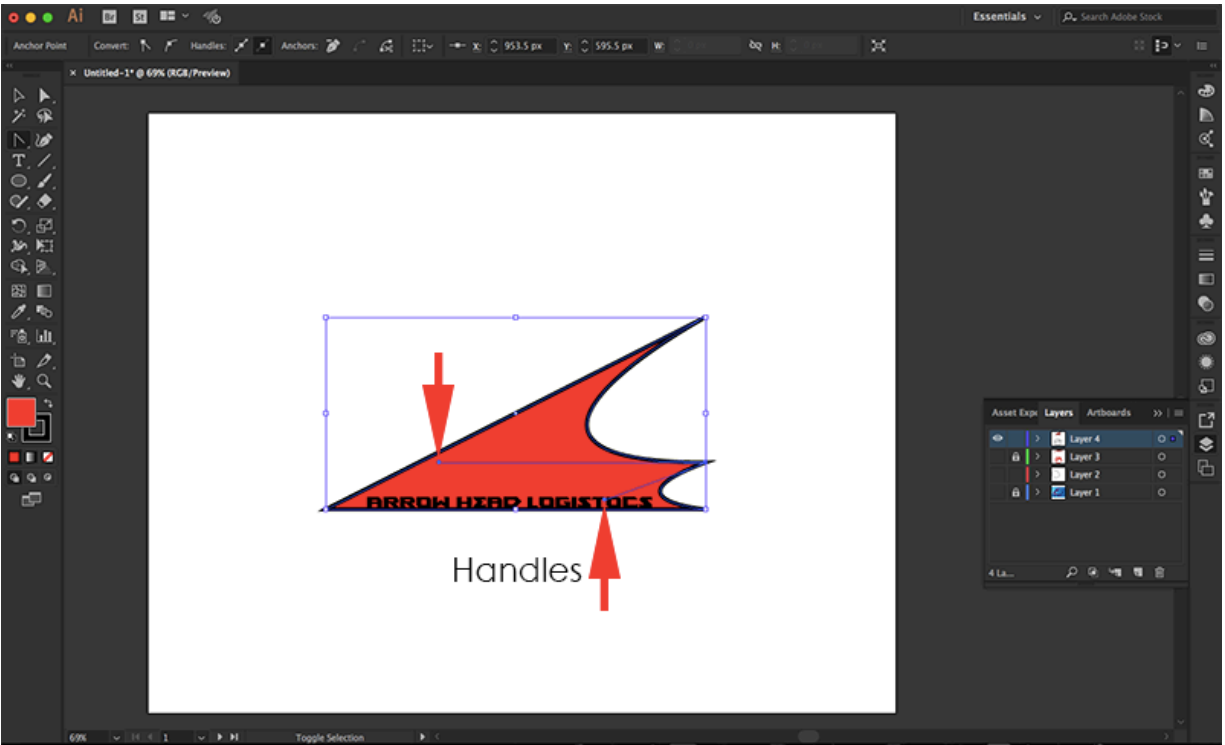
## Anchor Point Tool

This tool allows us to fine tune and manipulate points, curves and paths to get it to the shape we want. You probably noticed by now when we make curves and paths there are lines with orbiting points on them. We use this tool to manipulate those.



Select any path or point, then you can click and drag a point. Or, click on the orbiting point to select the **handle** and then move the handle around.

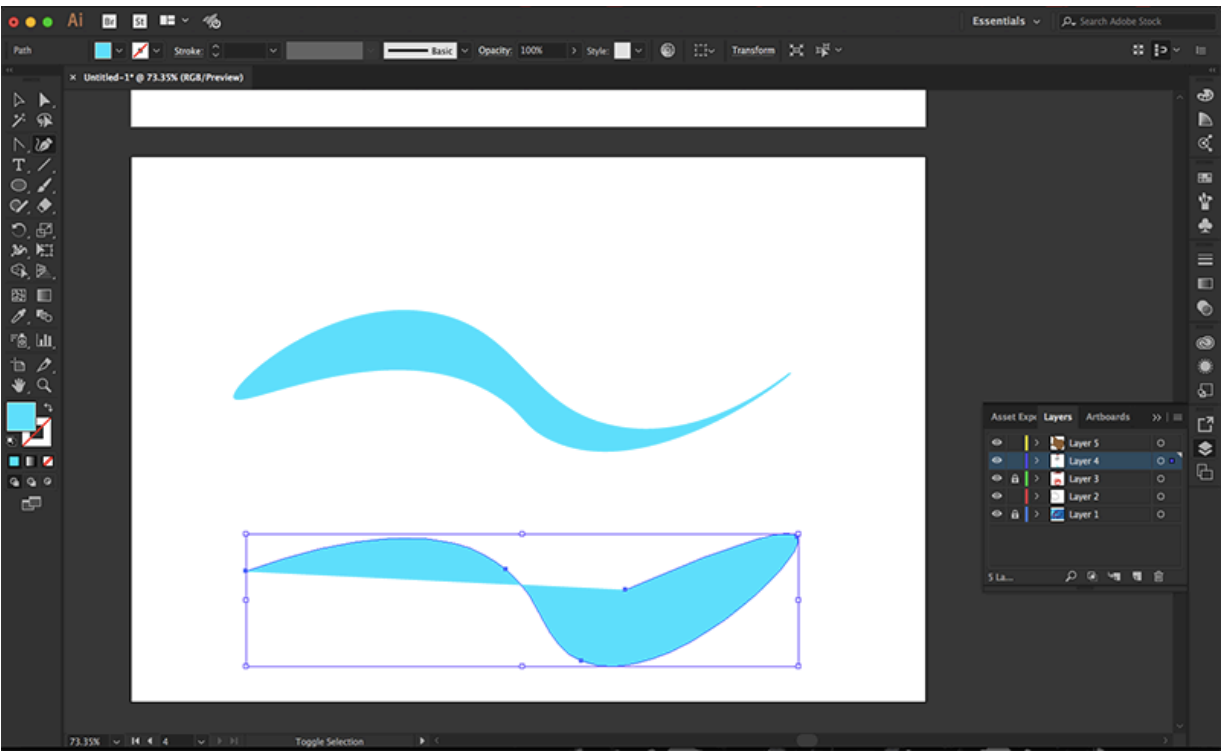
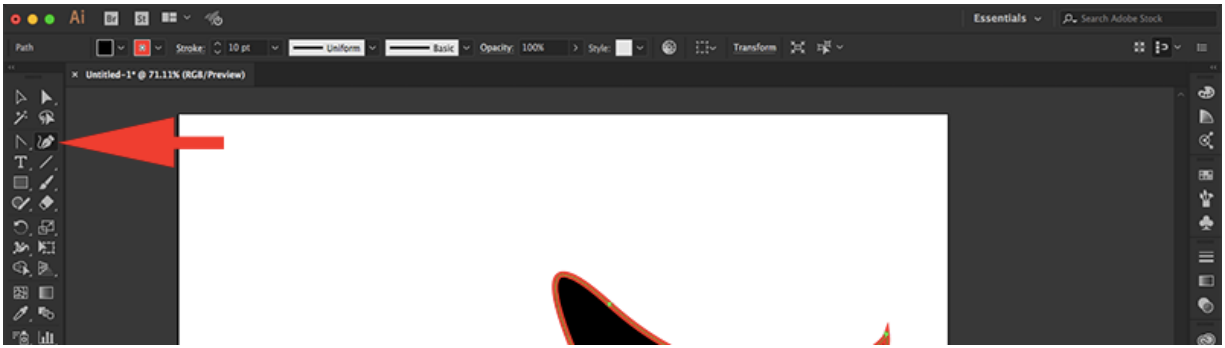
Remember our fin? Let's alter it a bit. In the image from the last section we can see one of the handles, but we will alter the handle on the other side. Once we have the Anchor Point Tool and we click on the path it will come up and we can alter it to make this:

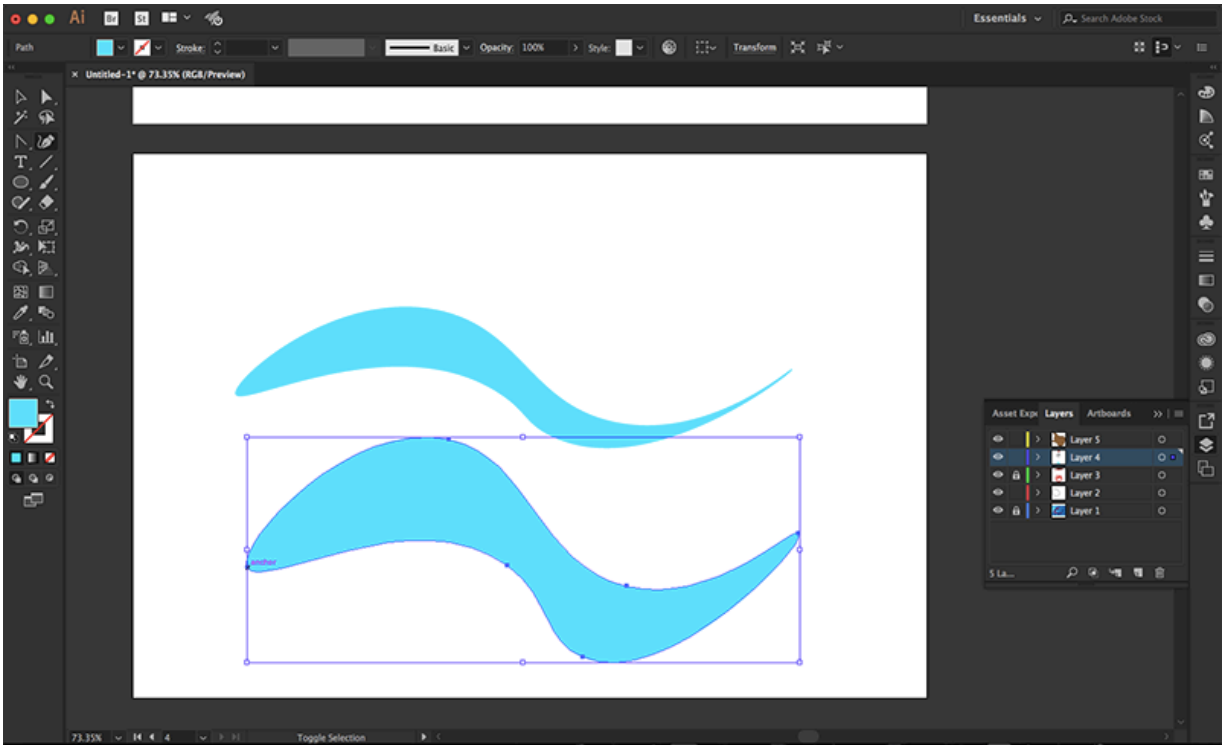


Ok so we covered the basics of those pen tools but there is one more important and very useful tool we can take a look at. As we already know we can use the pen tool to make shapes with curves. BUT... There is another tool we can use that works a bit better in some situations.

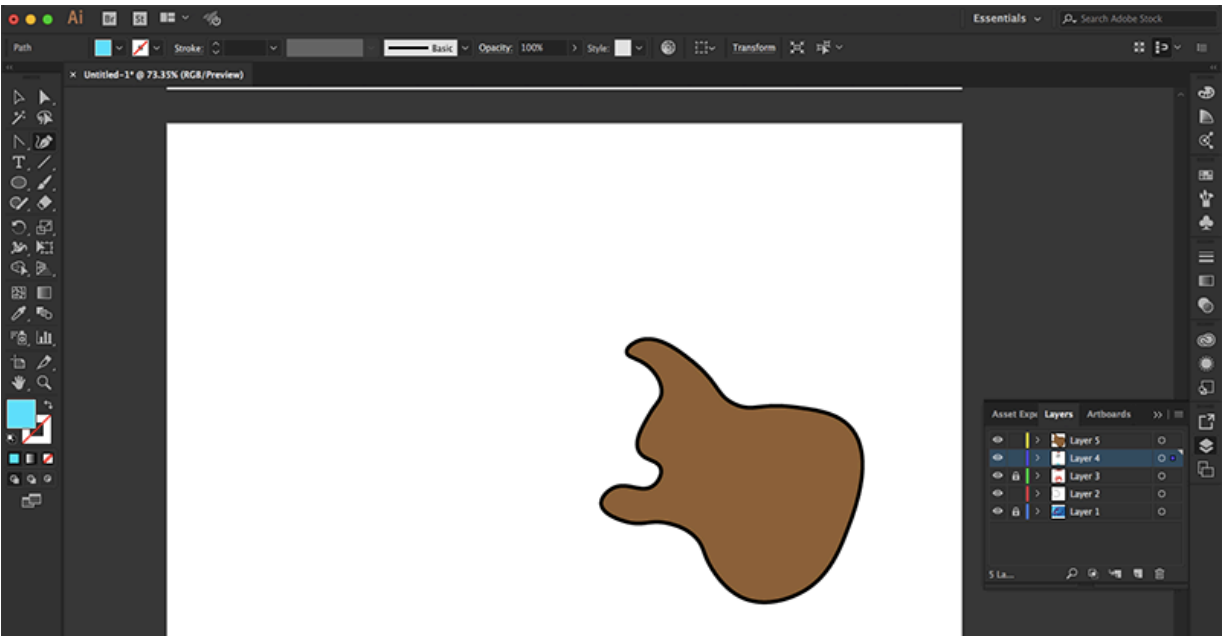
## Curvature Tool

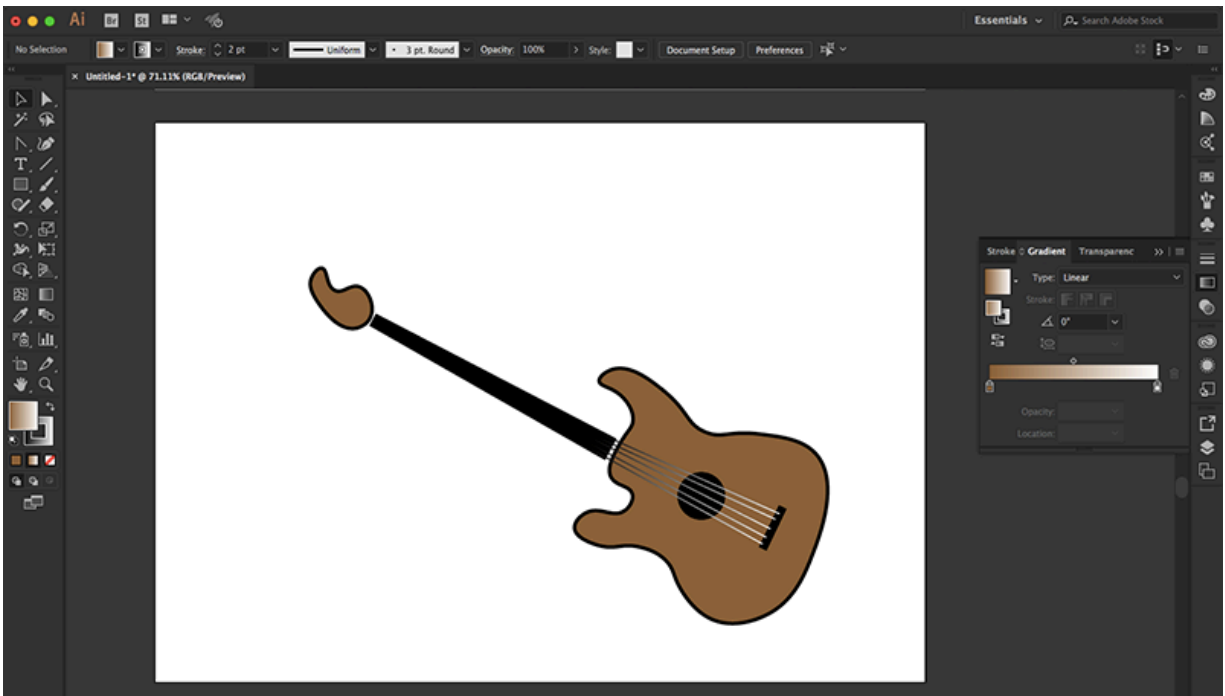
This tool right next to the pen tools we were just looking at, is another pen tool made specifically for curves. Its a little more fluid and easier to work with depending on the shape you are trying to create.



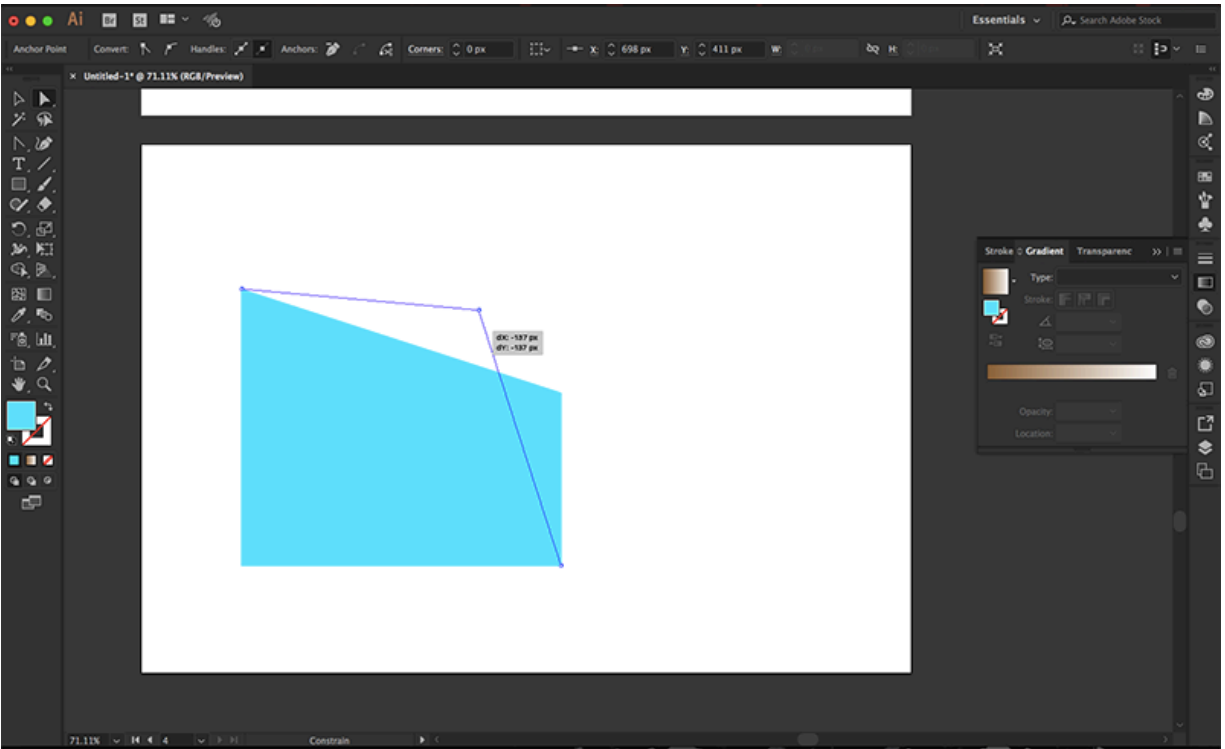


We can freely draw curved shapes with it quickly...  
Like any other shape, remember you must close the path to make it a whole shape.

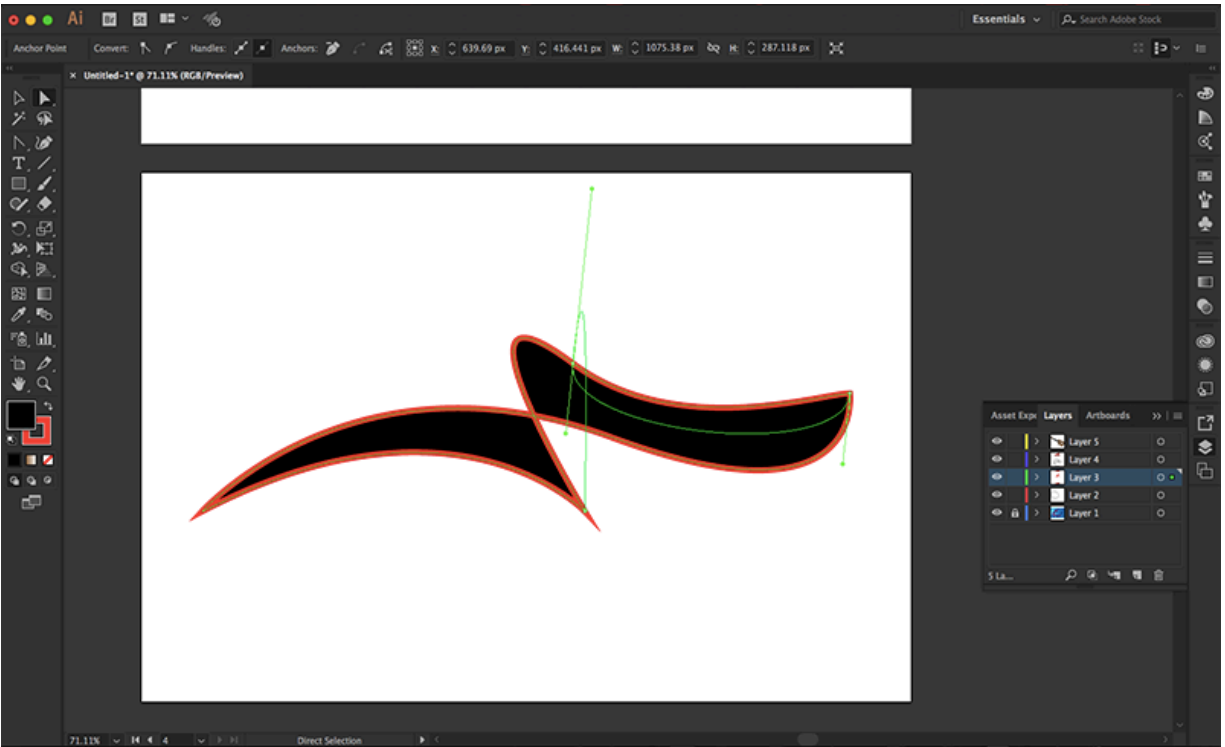




Also remember that when making these shapes we can also use the direct selection tool to move anchor points... Select the Direct Selection Tool, double click on the shape anchor point and drag.



You can also click on the path with the direct selection tool and manipulate that directly as well... Click the path itself and drag with the Direct Selection Tool and it will free warp the path handles.



Remember:

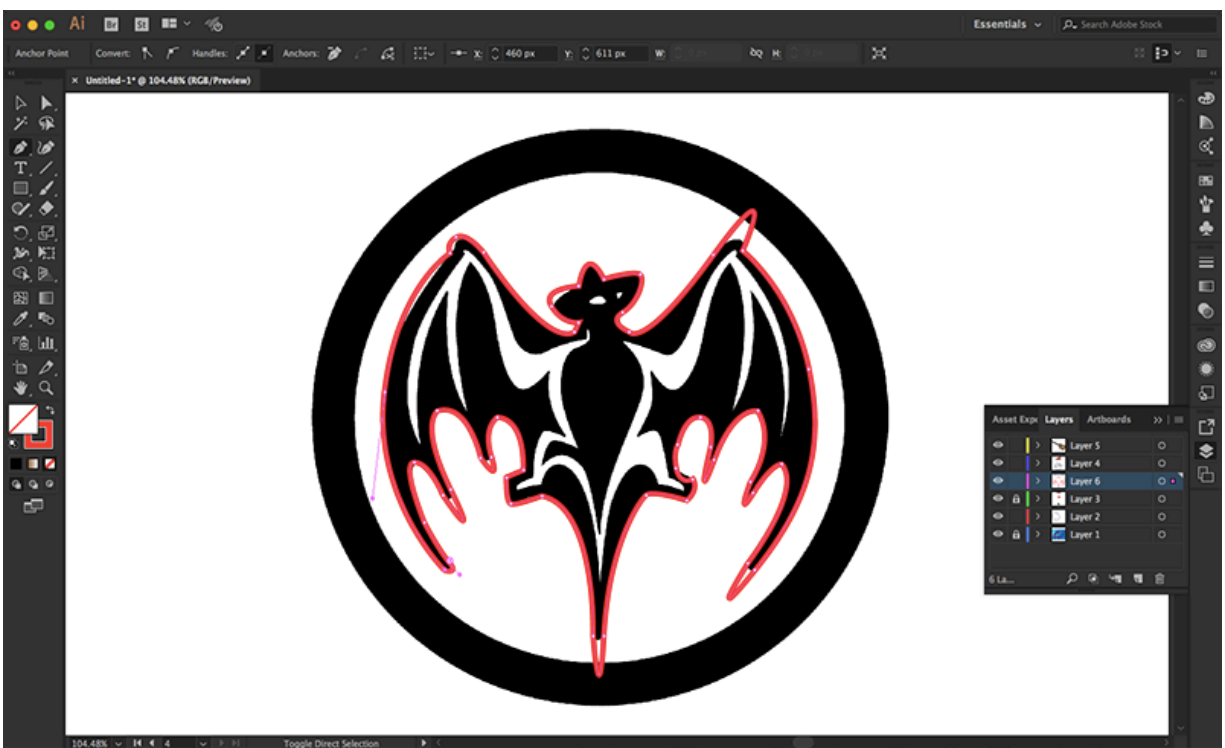
The regular pen tool allows us to make both straight and curved paths. It can be more rigid to work with but still is accurate to create complex shapes

The curvature pen tool allows us to make more fluid curved drawings on demand.

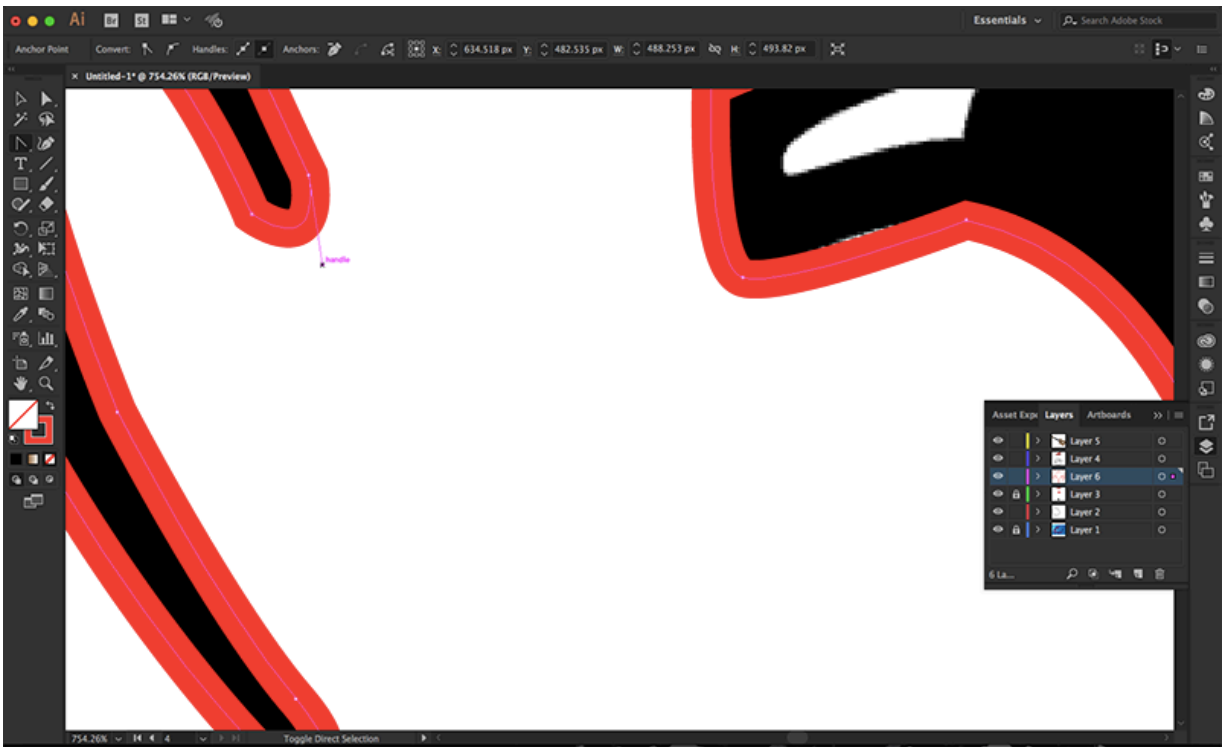
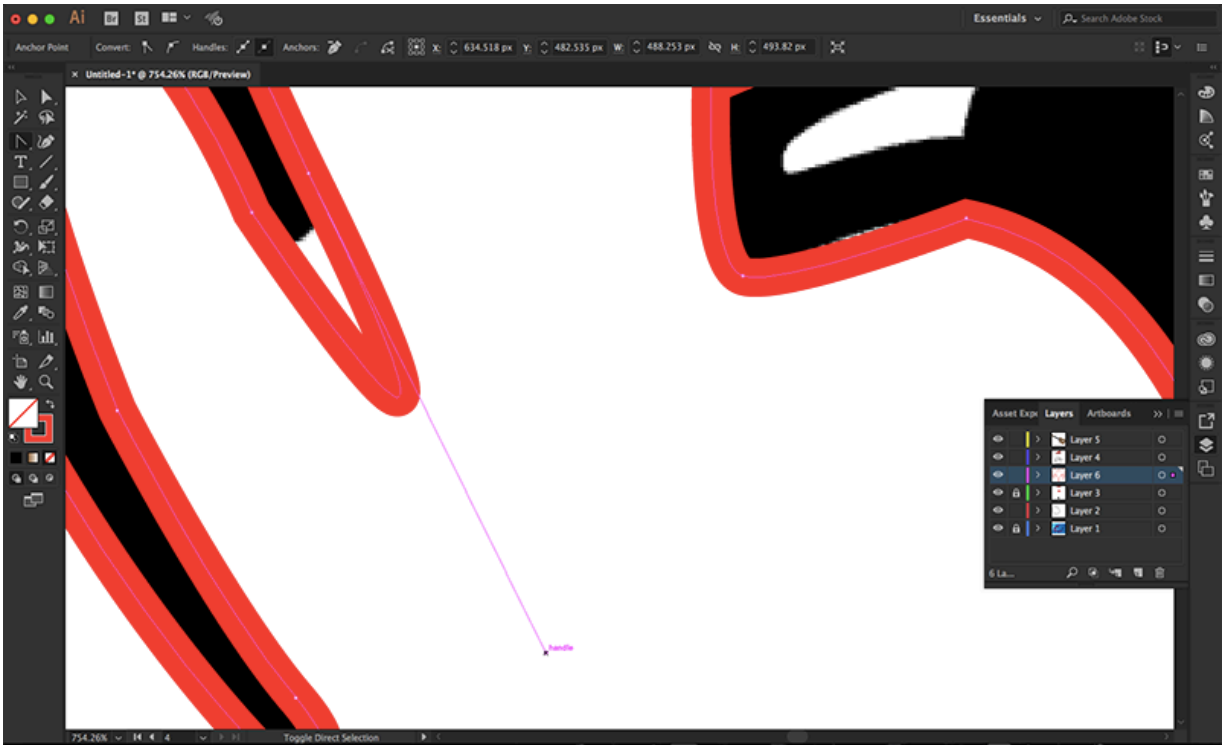
## Tracing

With the tools we just covered we can now get into tracing. Tracing is pretty easy when you get the hang of it. In the image below notice the lines on the

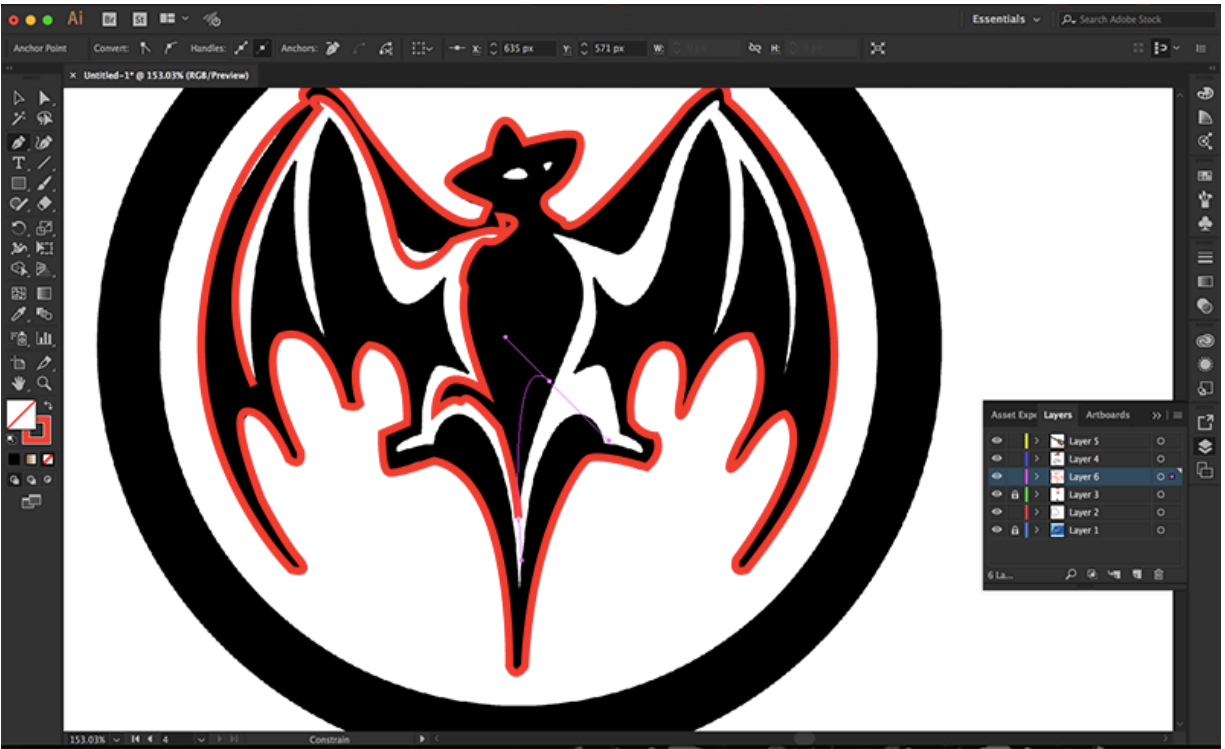
initial trace are not exactly perfect. We just use the pen tool to get as close a trace we can, The pen tool keeps the path going from the previous anchor point so sometimes we get a curve that may be too long or short, but we can edit that after the initial trace using the anchor point tool. We can trace the object as close as possible and then fix it up after. Remember while you are tracing, if you have a path with a curve that does not agree with the next point you are going to make, you can click the anchor point to reset the curve.



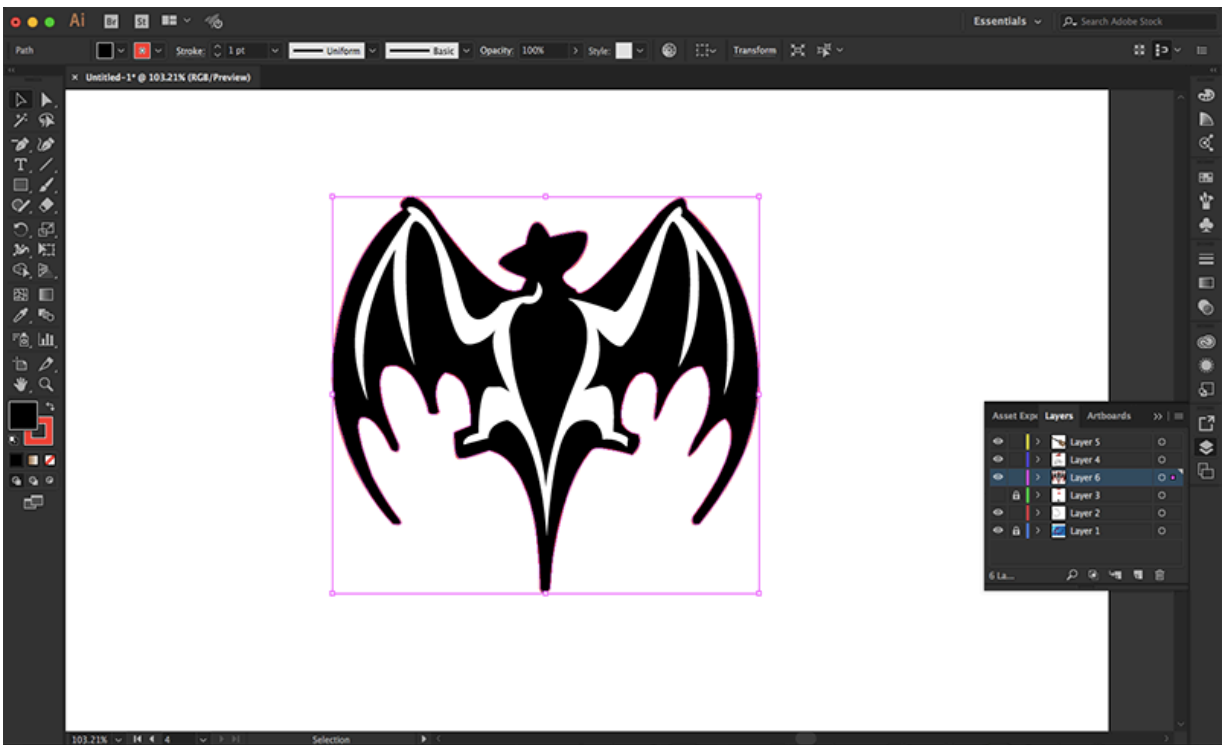
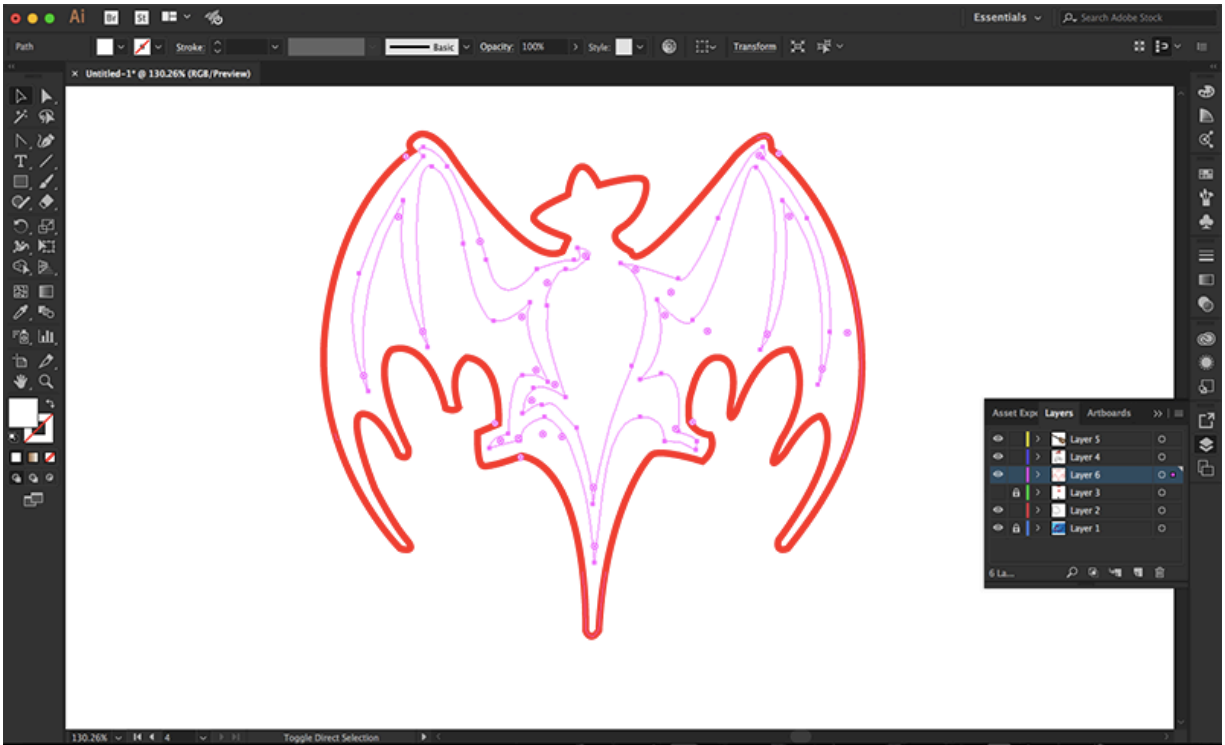
Note the fine tuning using the Anchor Point Tool and the handles



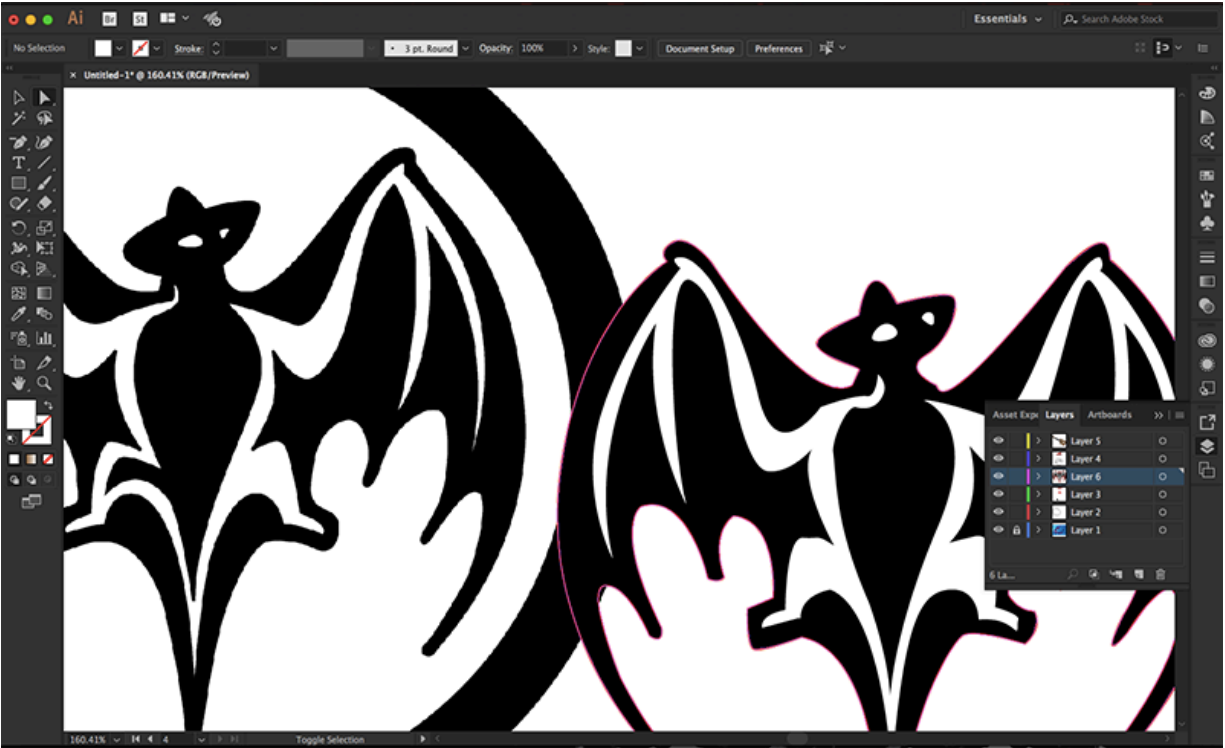
In situations like the below image, click the anchor point to reset the curve path...



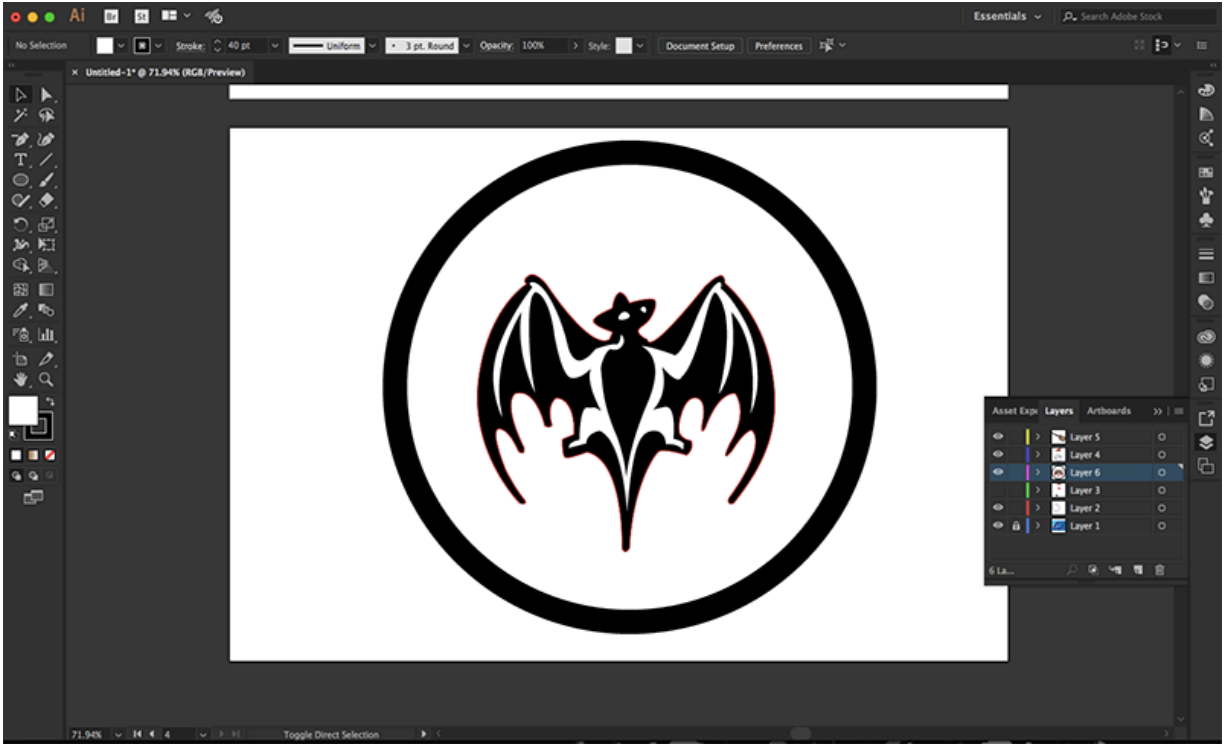
Now we have the back and the front. We can now colour and further fine tune.



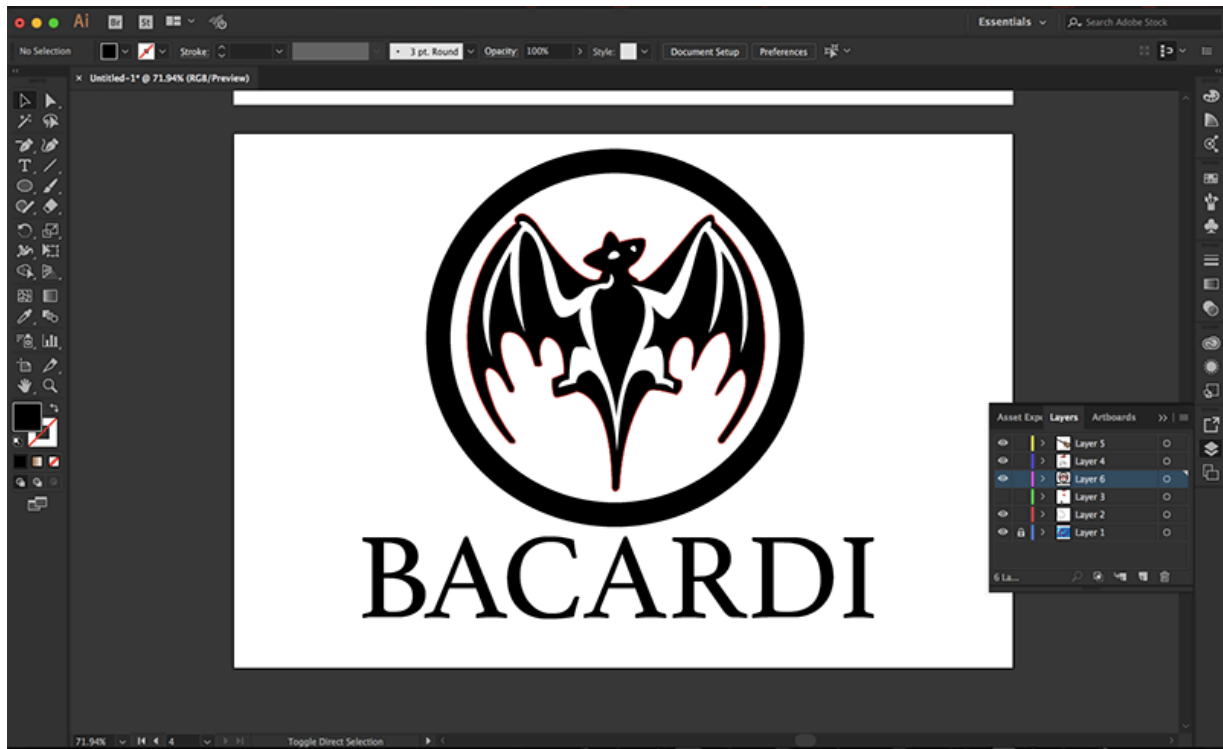
We can make the eyes and ears...



Then set up the circle. Remember to use cut and paste in back when needed...



Further Fine tuning and text...



And there you have it. Our very own recreated vectorized logo we can now use and deploy to scale!