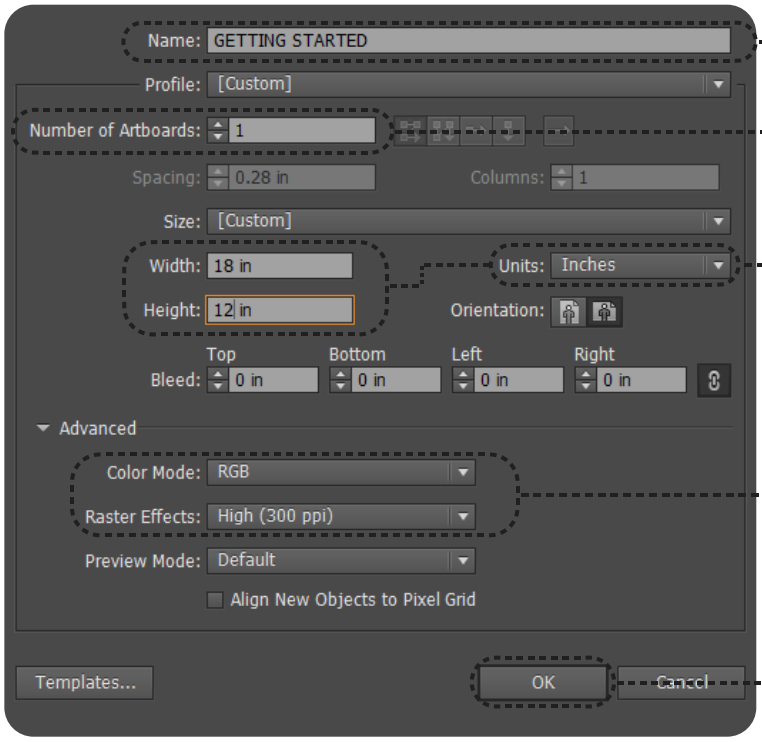
Adobe Illustrator

This packet will serve as a basic introduction to Adobe Illustrator and some of the tools it has to offer. It is recommended that anyone looking to become more familiar with the program go to the ***HELPFUL LINKS*** page on the DFL website. Here one can follow along with some of the more in-depth tutorials on how to use Adobe Illustrator. As with any software there is a learning curve to this program. Once you understand a few of the basics, which this packet will provide, the learning curve levels out quite a bit. As anyone who is proficient in this program can tell you, it just takes practice

GETTING STARTED:

To begin you are going to want to open Adobe Illustrator, then go to the upper left hand corner to **FILE > NEW**. From there the menu below will appear. This is where you will define the settings for your document. These settings will depend on the requirements of your project, so it is good to have the final output of this file in mind prior to setting up your file.



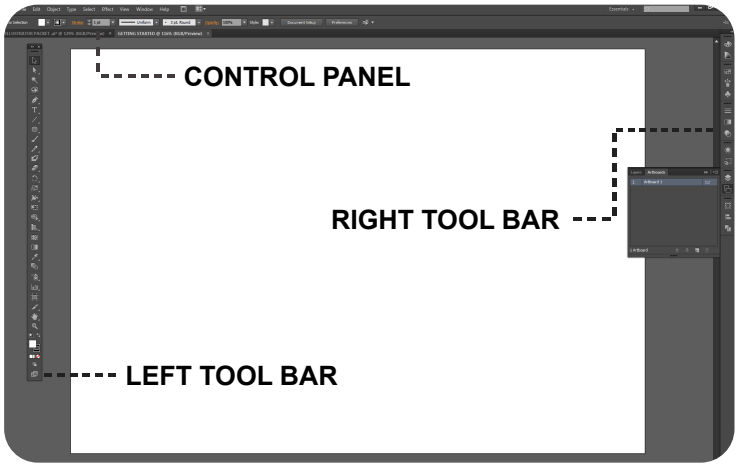
Always **NAME** your project file. It should be specific to you and the project you are working on.

An **ART BOARD** is a printable workspace Within a Illustrator file. Think of them as your easel.

WIDTH and **HEIGHT** are the dimensions of your art board or work area. **UNITS** can vary: cm, mm, pixels. In our case we will be using **inches**.

COLOR MODE will alter a number of color presets within your file. The laser cutter only reads **RGB** color so for this file we will set it up in **RGB MODE.**

Once you have your file set up correctly, click **OK** to begin.



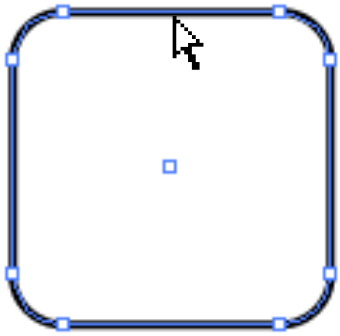
Once you have hit **OK** your new document will appear and should look something like this. At left you will see two tool bars identified as **LEFT** and **RIGHT** as well as a **CONTROL PANEL**.

If you hover your cursor over any one of the icons in the tool bar or control panel it will reveal a description of what that tool is.

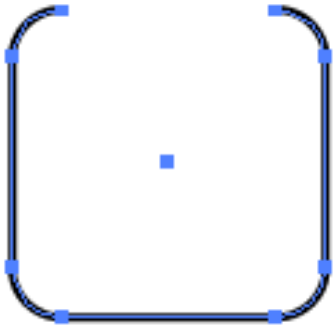
If at any point you are looking for a function and can't find it, check the drop-down menus above the control panel.

DIRECT SELECT TOOL:

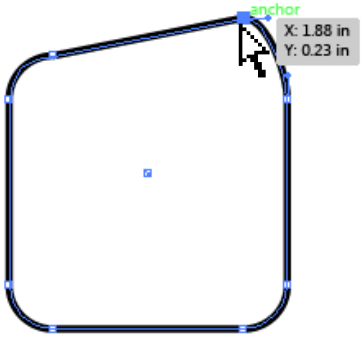
The **DIRECT SELECT** tool is the **WHITE ARROW**. This tool allows you to select individual anchor points or line segments of an object.



As seen here, the control points are different. When you click with the Direct Select tool it is showing the individual points making up the shape.



These points / lines can be deleted by clicking a point / line and hitting delete.

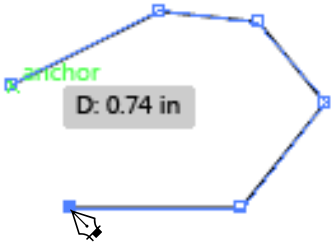


These points can also be moved by simply clicking and dragging.

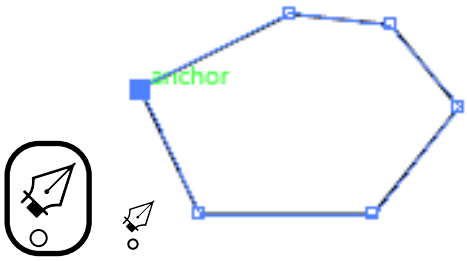
One can also select multiple point or lines using Direct Select. Using the white arrow, select your first point/ line **HOLD SHIFT** and from there select the rest of the desired points / lines.

PEN TOOL:

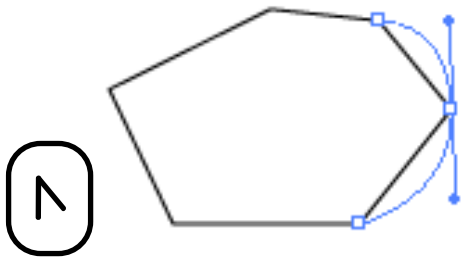
The pen tool allows one to draw a free-form array of points (control points) connected by line segments. This tool can be used to construct shapes as well as trace non-vector artwork.



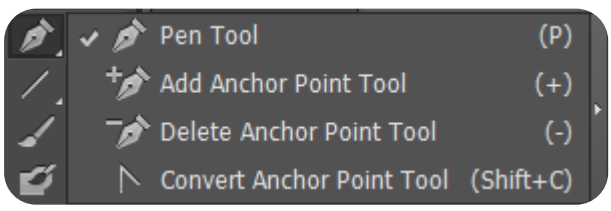
To draw with the pen one simply clicks where they want the anchor point to be then moves to the next point and clicks. As you move along, you will see the line segments develop into a shape.



When drawing with the pen, in order to create a **CLOSED SHAPE** one must return to the **ORIGIN POINT** (first point.) From there a circle will appear with the pen icon. Click that first point and the shape will become closed.



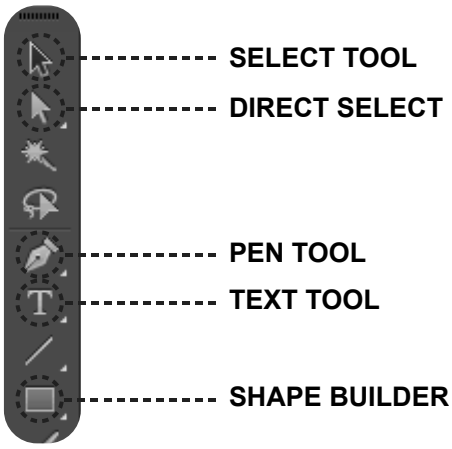
The **CONVERT ANCHOR POINT** tool allows an individual to alter the contour of line segments. By clicking a control point with this tool a black arrow will appear with handles. Moving these handles is what alters the contour of the lines.



If you click on the **PEN** icon in the **LEFT TOOL BAR** you will find this menu. It leads to the pen functions explained above as well as a number of other pen tool functions.

LEFT TOOL BAR:

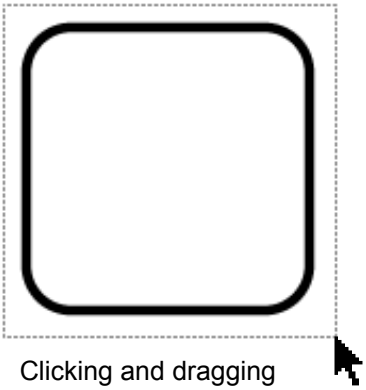
The left tool bar is the primary tool bar for most of the functions in Illustrator.



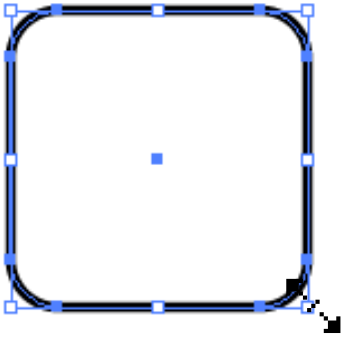
SELECT TOOL:

The **SELECT TOOL** is the **BLACK ARROW** at the top of the tool bar. Using the select tool you can click on any part of an object **OR** click / drag a marque around it to select the entire object.

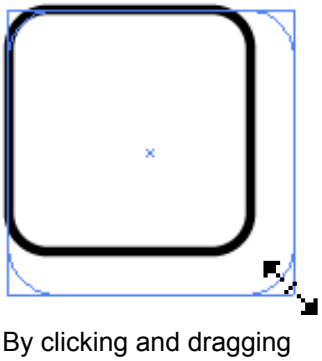
When you have an object selected you can alter the **SCALE** of that object by dragging any one of the control points in or out. To ensure everything is scaled equally **HOLD SHIFT** while dragging.



Clicking and dragging around the object creates a marque as can be seen here.

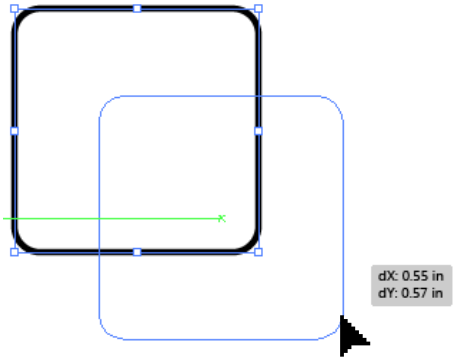


A bounding box will appear around the shape as is indicated by the white control points seen here.

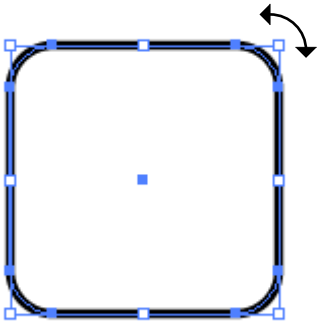


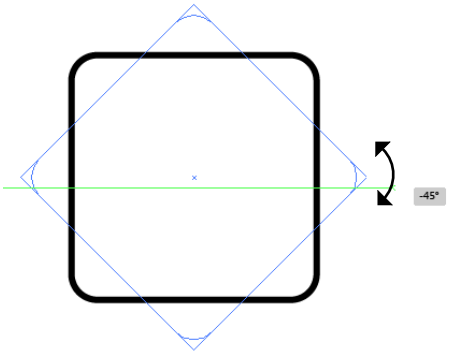
By clicking and dragging any one of these control points one can alter the size of the shape.

Using the **SELECT TOOL** one can also **MOVE** and **ROTATE** objects.



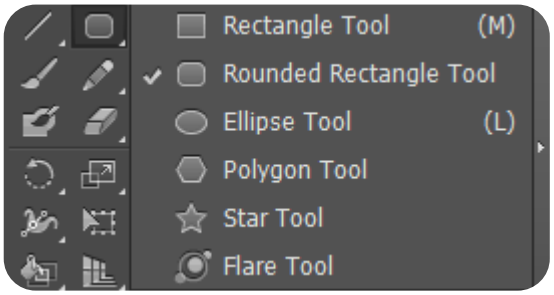
With the object selected one can **MOVE** the object by simply clicking and dragging it to the desired location.



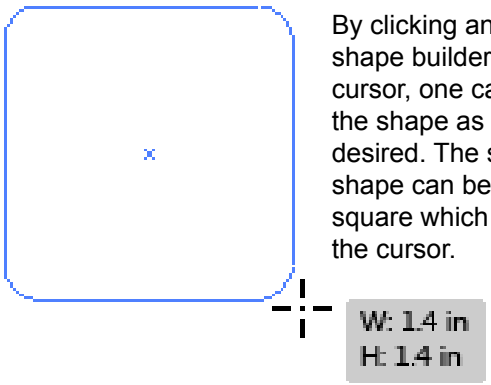


Using the **SELECT** tool, click on the object that you would like to **ROTATE**. With the object selected, hover your cursor over any corner of the object and the **ROTATE ICON** will appear. From there you can click and drag to rotate the object. Similar to scaling an object, if you hold shift while rotating, you can constrain the rotation to 45° increments.

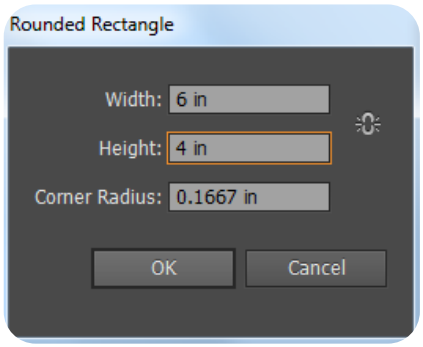
SHAPE BUILDER:



The **SHAPE BUILDER TOOL** allows you to access a number of preset shapes. To start one clicks the shape builder icon and choses the type of shape they want. From there they can click / drag to create the shape free hand **OR** click the cursor once and input the desired shapes dimensions in the menu which appears.



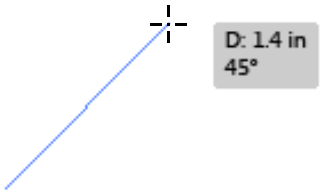
By clicking and dragging the shape builder “cross hair” cursor, one can drag to make the shape as large or small as desired. The size of your shape can be seen in the Grey square which accompanies the cursor.



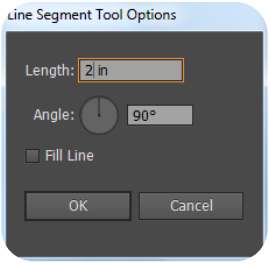
OR one can select their shape type, click the Art Board once and this menu will appear. Its gives the option to input specific dimensions for your shape well as alter a number of other shape specific attributes.

LINE TOOL:

There are two ways to draw a line with this tool.



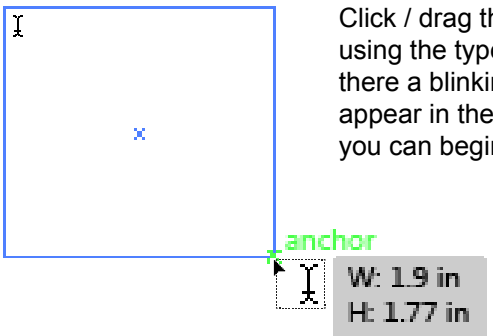
One, **CLICK** where you want the line to begin, and **DRAG** to where you want the line to end and release the mouse.



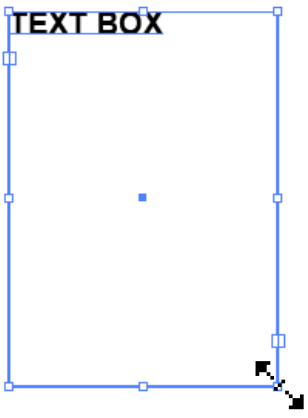
The other is by clicking once within the Art Board and specifying the length and angle of the line within the menu that appears.

TEXT TOOL:

The text tool allows one to embed text into one’s illustration. To use the text tool one simply clicks / drags a marquee where they would like the text. From there a cursor will appear and one can type within the box they just created.



Click / drag the text box using the type tool. From there a blinking cursor will appear in the upper left and you can begin to type.



The **CONTROL PANEL** will allow you to change the font, characteristics, type size, etc.

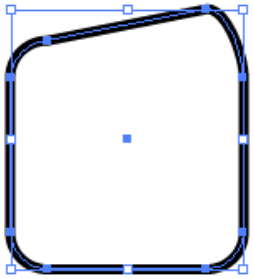
One can change the dimensions of the text area by using **SELECT TOOL** to click / drag any of the bounding box control points. The text box will be re-formated to meet the new dimensions.

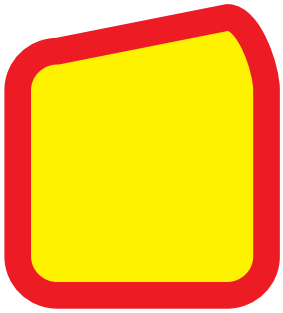
STROKE AND FILL:

A **FILL** is a color, pattern, or gradient inside an object. A **STROKE** is the visible outline of an object or path.

Using the **SELECT TOOL** to highlight the object, one can then use the control panel options seen at right to change the **FILL, STROKE**, and **STROKE WEIGHT**

The arrows to the right of the control panel icons offer drop-down menus with options to alter these settings.





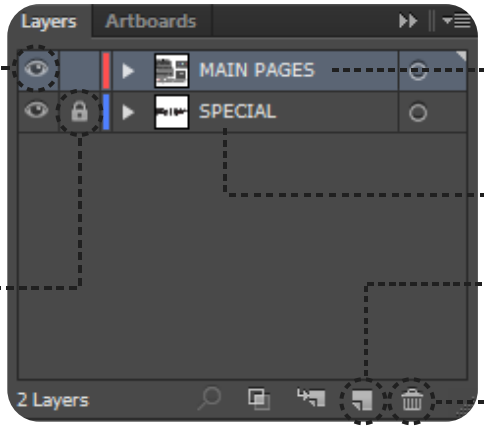
You can see here the effects of the changes that can be made using some of these options.

LAYERS:

The layers panel provides an easy way to select, hide, lock, and change the appearance of selected portions of your artwork. Layers are a very useful way to organize and arrange artwork in more complex illustrations. Think of layers as transparent pages in a sketchbook. While you can see everything, portions of your work can live on different “pages” or layers making the editing process far simpler.

You can make layers **VISIBLE** or **INVISIBLE** by clicking the **EYE** icon. When the eye is visible so is that layer and vice versa.

The **LOCK** indicates that a layer is locked and cannot be edited until unlocked.



When a layer is **HIGHLIGHTED BLUE** it is indicating the layer on which you are currently working.

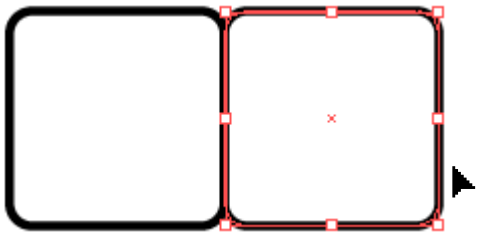
NAME your layers so as to not lose track of what is what.

CREATE NEW LAYER appears at the bottom of the menu as a Page with a folded corner.

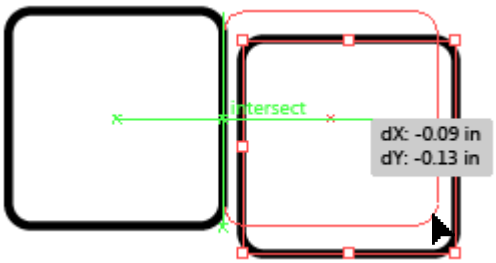
TRASH deletes unwanted layers.

SMART GUIDES:

Smart Guides, found under **VIEW > SMART GUIDES**, are temporary snap-to guides which help you move, and transform objects relative to other objects by showing automatic alignment options.



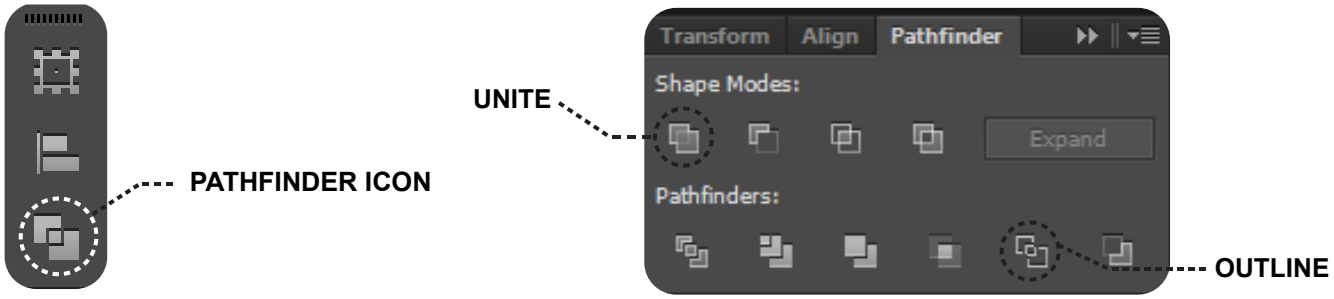
Without Smart Guides on, it is somewhat difficult to see weather two shapes are aligned properly.



When moving with Smart Guides it will show you, for example, that theses two objects are now aligned in the center and edge to edge as indicated by the green lines.

PATHFINDER TOOL:

The Pathfinder tool, found in the right tool bar or through **WINDOW > Pathfinder** allows the individual to combine and crop vector objects in a variety of different ways. While there are many Pathfinder functions, I would like to concentrate on two: Unite and Outline.



NOTE:
Many of these pathfinder functions depend greatly upon which object is on top, so using **ARRANGE** from either **OBJECT** > **ARRANGE** or **RIGHT CLICKING** and selecting arrange, you can bring objects forward, or send them backward, depending on what you are looking to accomplish. z

UNITE:
Combines all the selected objects and merges them into a single shape. If the objects are different colors, the merged shape takes on the attributes of the top-most object.

OUTLINE:
Outline separates the overlapping shapes into separate, editable elements but instead of shapes the result is individual line segments. Wherever two line segments overlap the outline tool will place a control point allowing you to move or trim certain line segments of that outlined shape.

NOTE: if you use the outline function, you must go to the **CONTROL PANEL** and apply a **STROKE** to the line once you have used that operation.

CLASS NOTES: