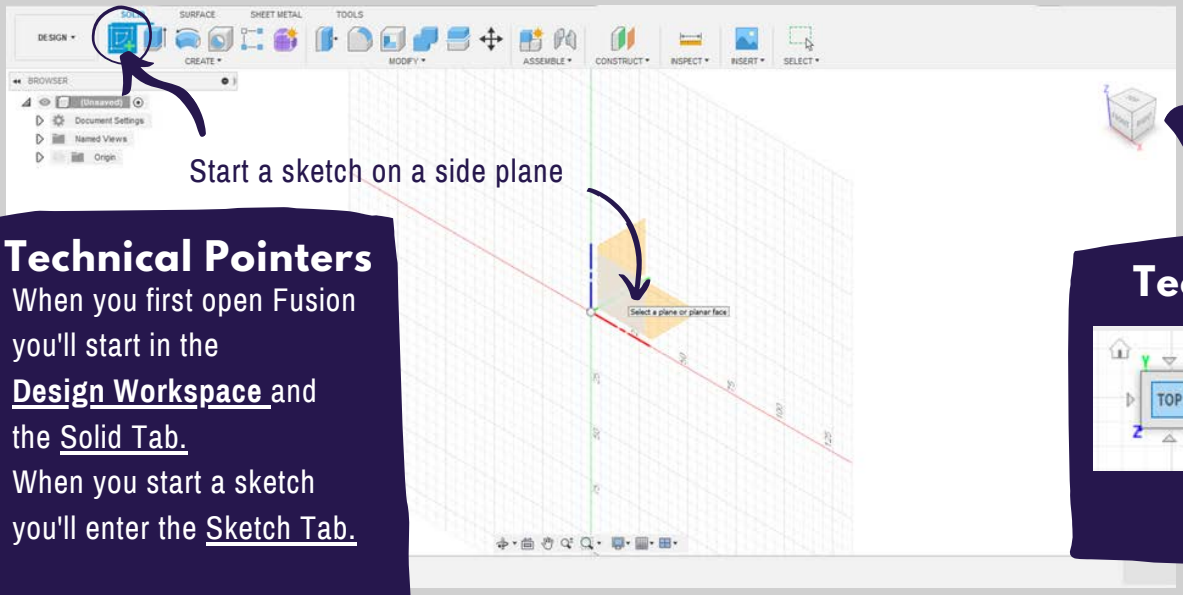
CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

INSERT A CANVAS



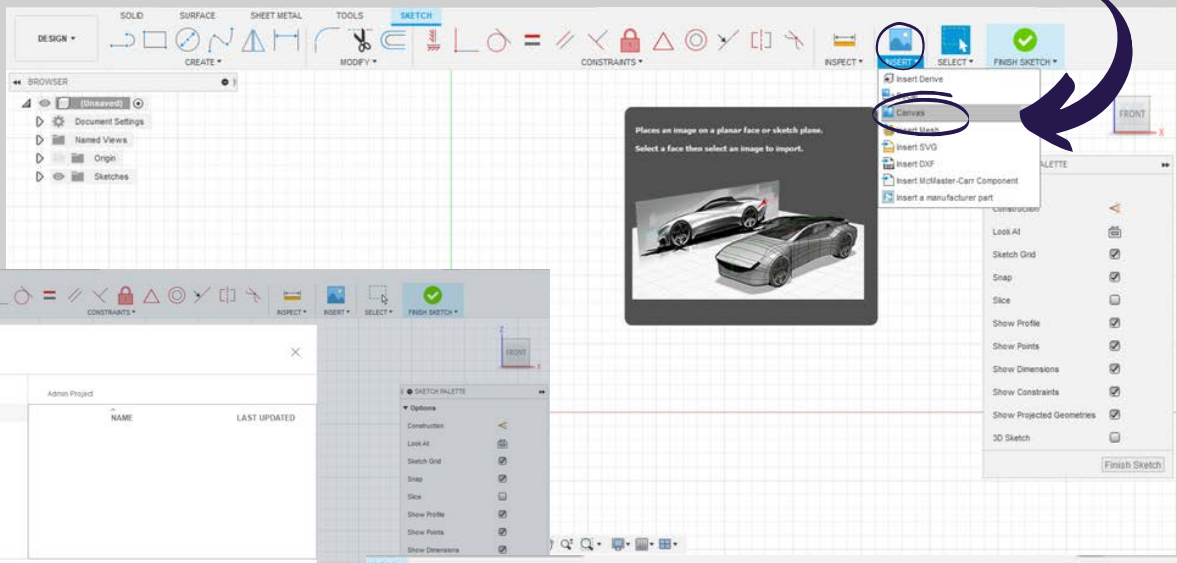
Technical Pointers

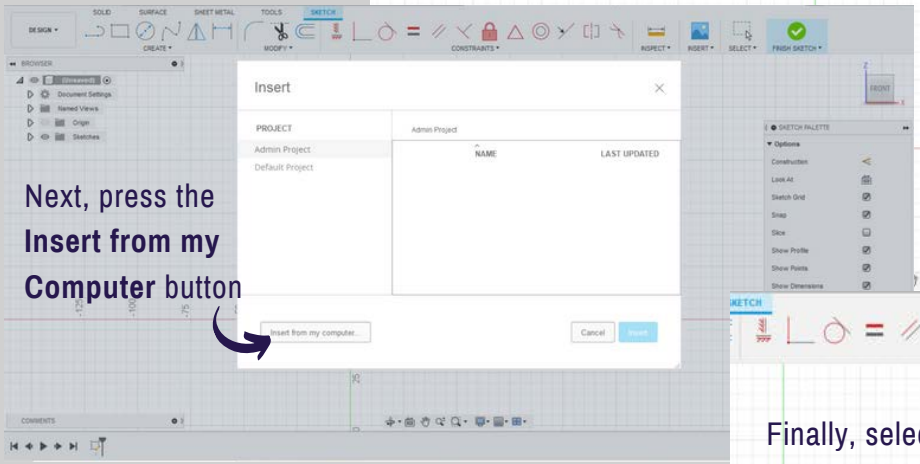
When you first open Fusion you'll start in the **Design Workspace** and the Solid Tab.
When you start a sketch you'll enter the Sketch Tab.

Technical Pointers

The **View Cube** can be found on the top right corner of your browser and can help a lot with navigation.

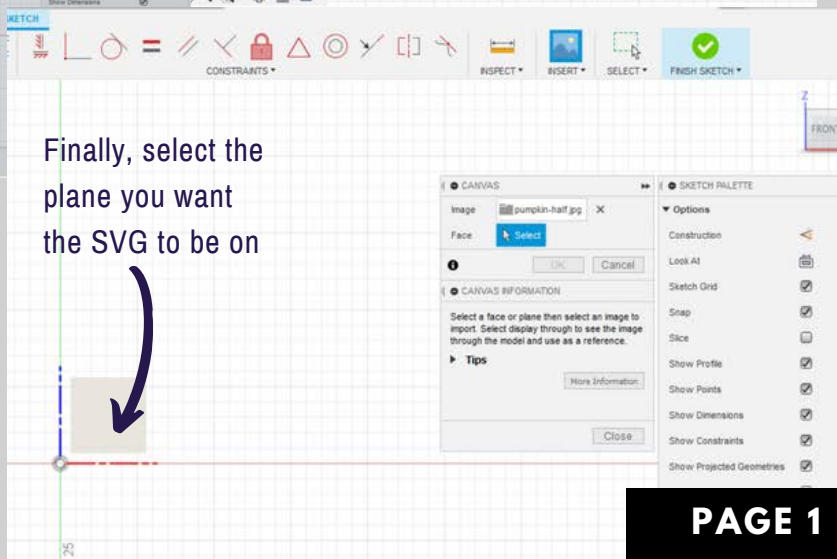
Next, head to the **Insert** menu and click **Canvas**.





Next, press the **Insert from my Computer** button

Finally, select the plane you want the SVG to be on



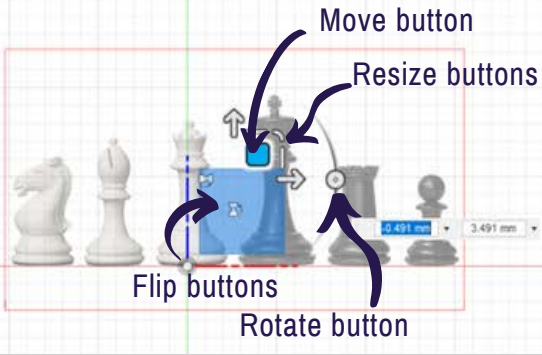
Technical Pointers

To zoom in Fusion roll the middle mouse button. To pan hold the middle mouse button

CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

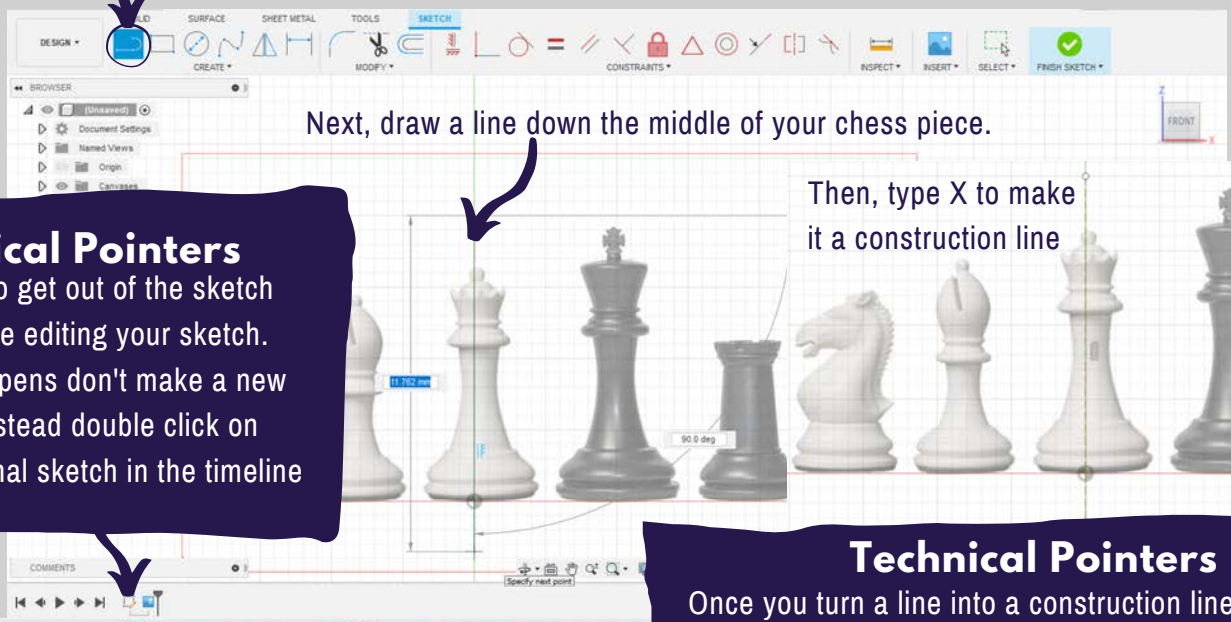
ADJUST THE CANVAS

Now use the edit tools to place the canvas where you want it to be - with the chess piece you're modeling in the middle



Technical Pointers

Fusion will highlight the tool you're currently using



Next, draw a line down the middle of your chess piece.

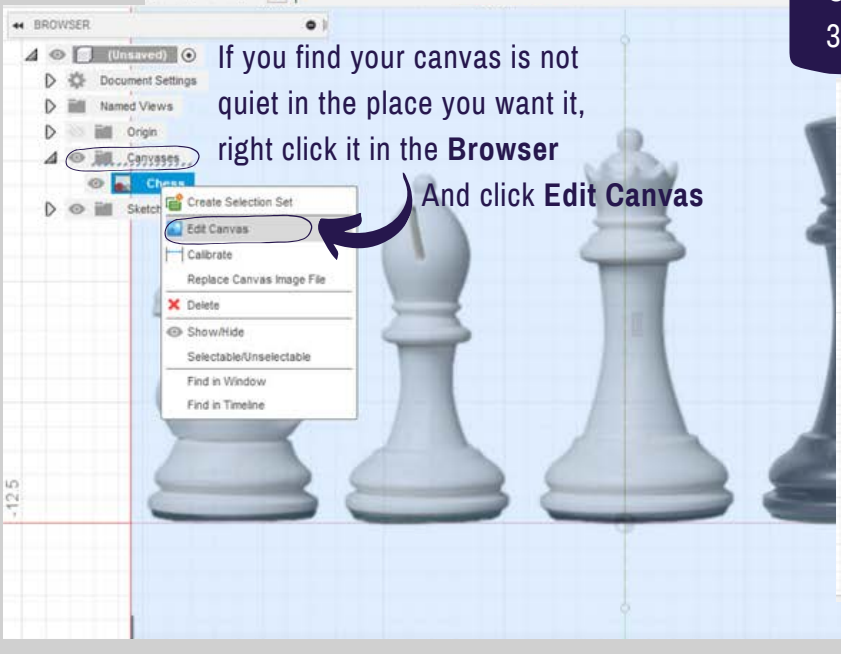
Then, type X to make it a construction line

Technical Pointers

It's easy to get out of the sketch menu while editing your sketch. If this happens don't make a new sketch, instead double click on your original sketch in the timeline

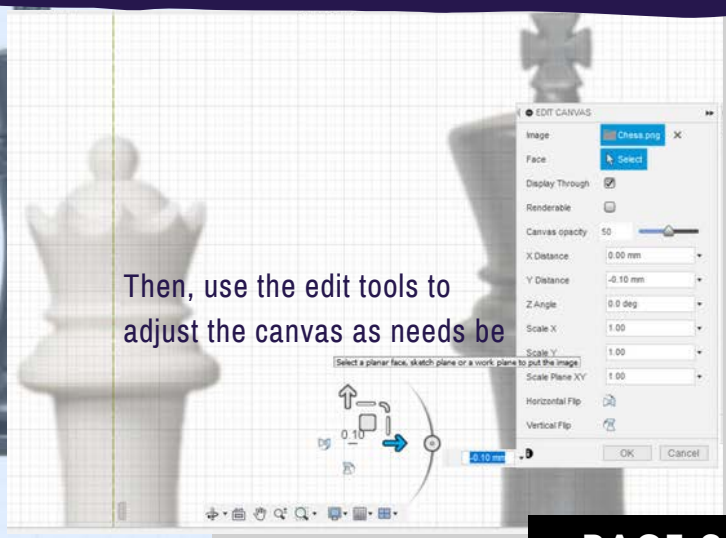
Technical Pointers

Once you turn a line into a construction line, Fusion 360 will keep the tool active. To stop this type X again.



If you find your canvas is not quiet in the place you want it, right click it in the **Browser**

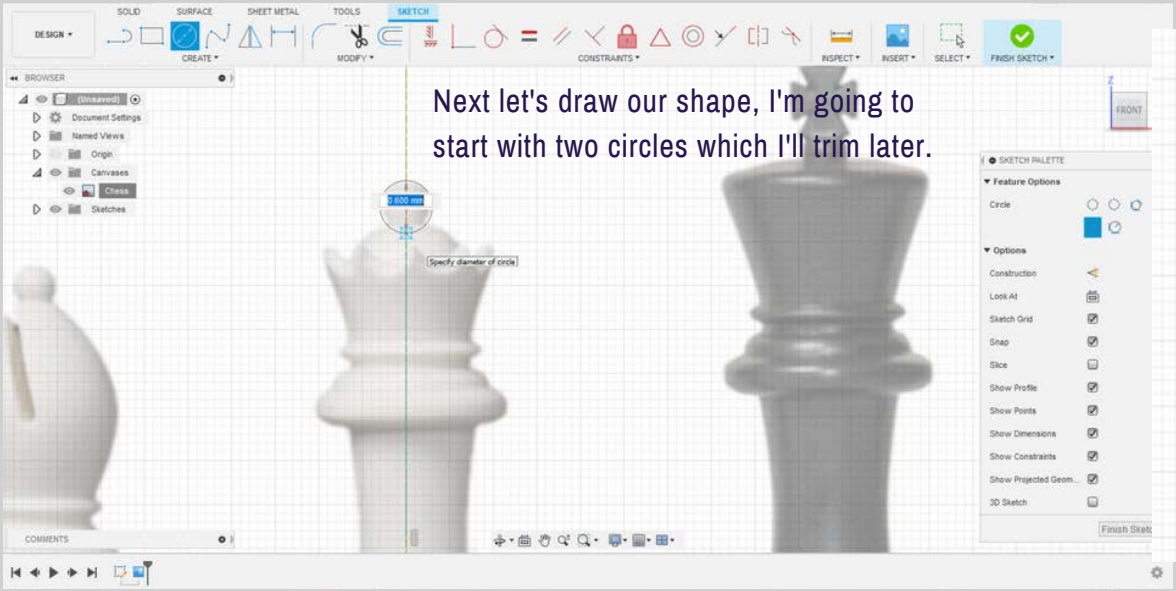
And click **Edit Canvas**



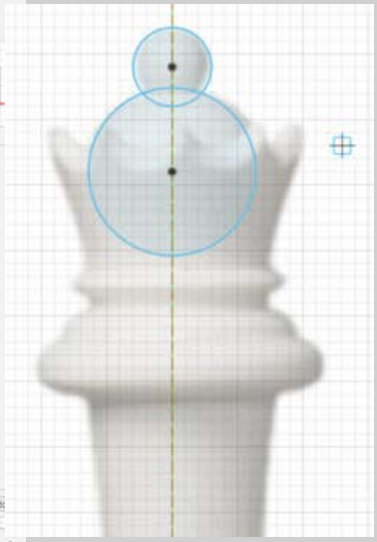
Then, use the edit tools to adjust the canvas as needs be

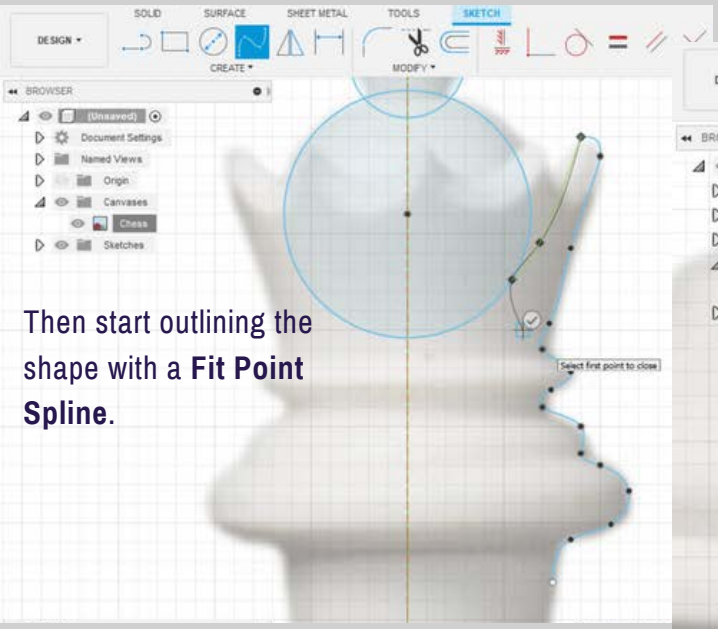
CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

OUTLINE THE SHAP

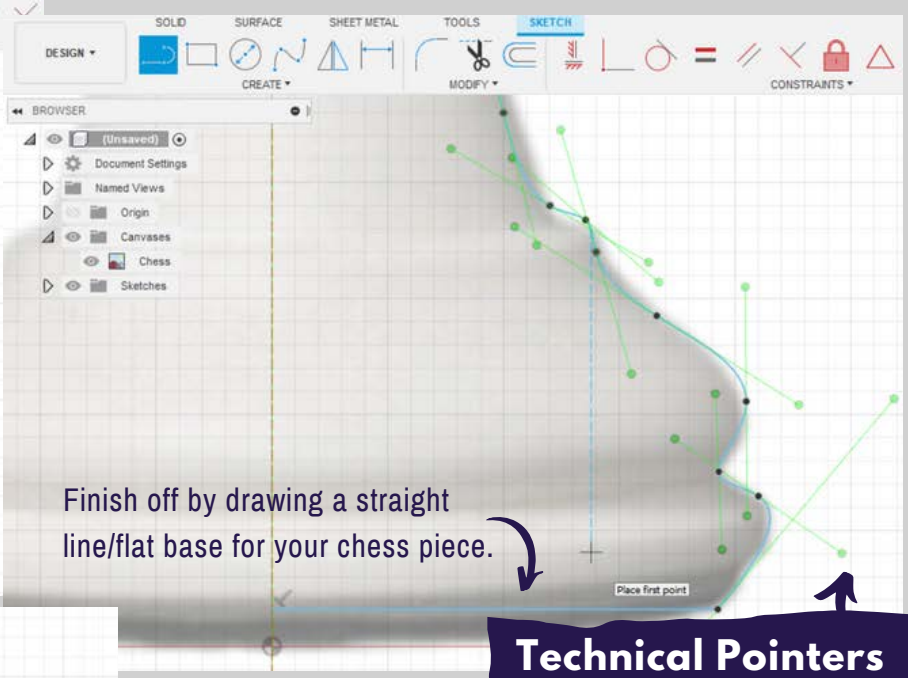


Next let's draw our shape, I'm going to start with two circles which I'll trim later.

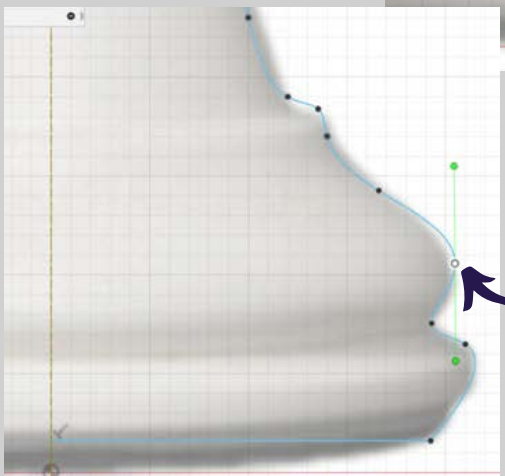




Then start outlining the shape with a **Fit Point Spline**.



Finish off by drawing a straight line/flat base for your chess piece.



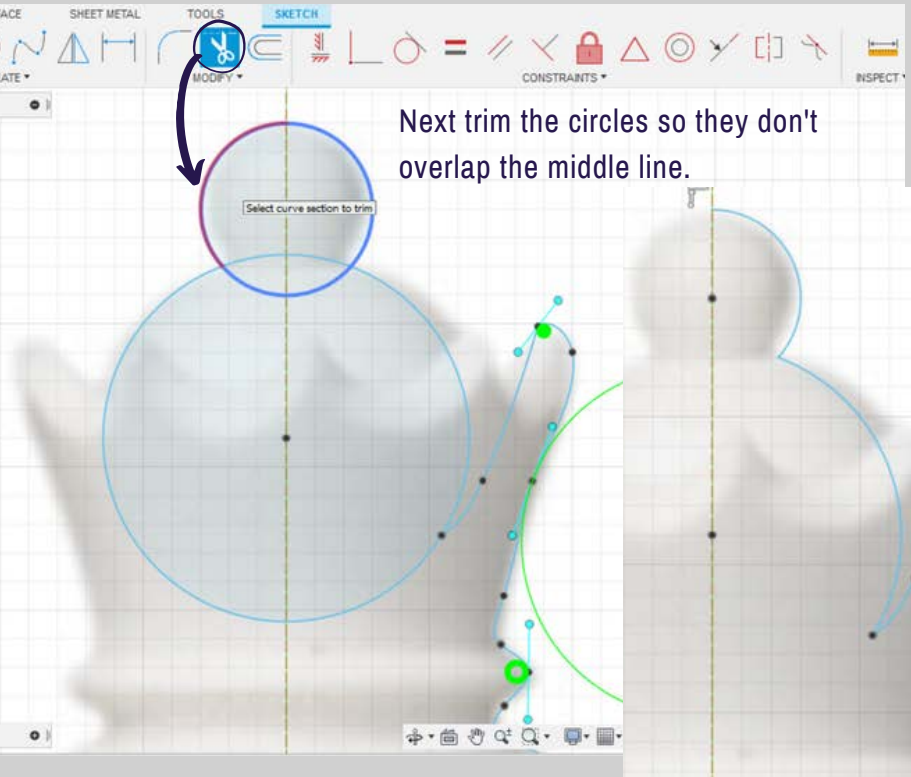
And remember, if you want to adjust your curve just select the point you want to edit. You can press and hold the point to move it and use the green handles to adjust the curve.

Technical Pointers

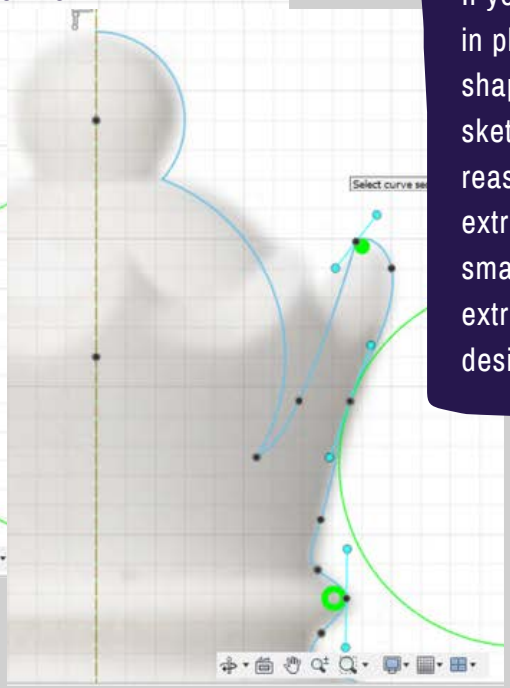
The green circles are handles and can be used to edit the spline curve

CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

TRIM THE LINES

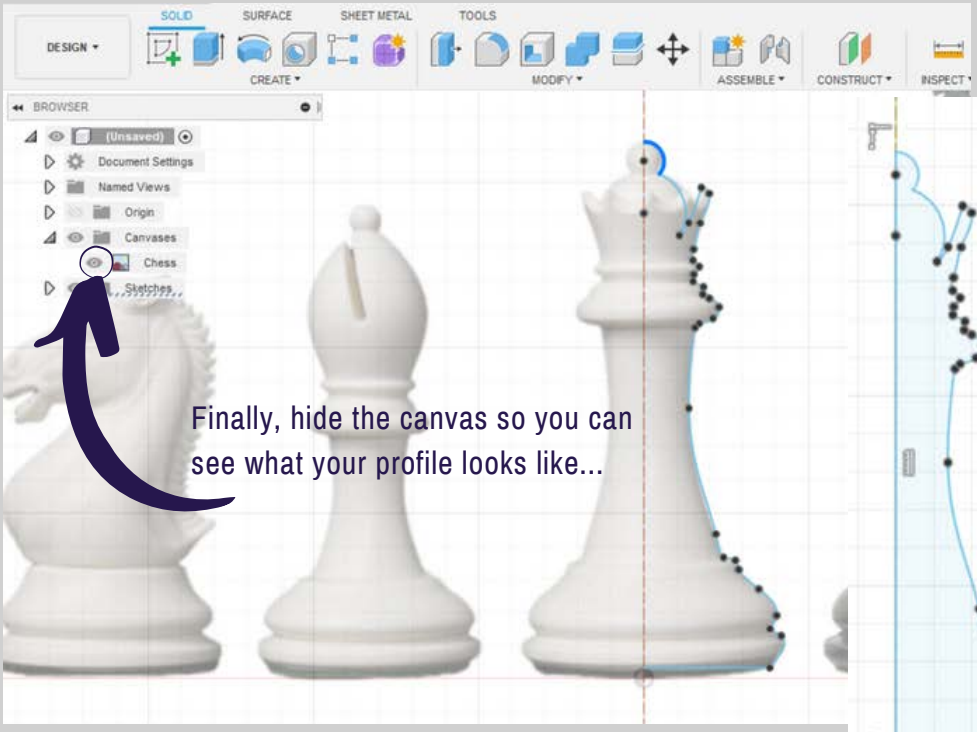


Next trim the circles so they don't overlap the middle line.

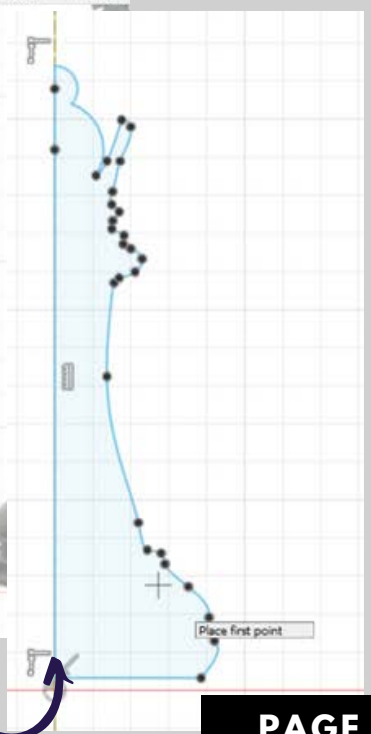


Pro Tip

Why clean up your sketch?
If you could just leave all your lines in place and still extrude the same shape, why bother cleaning up your sketch and trimming lines? The main reason is a clean sketch helps with extrusion. It can be easy to miss small parts of your sketch when extruding, leading to holes in your design.



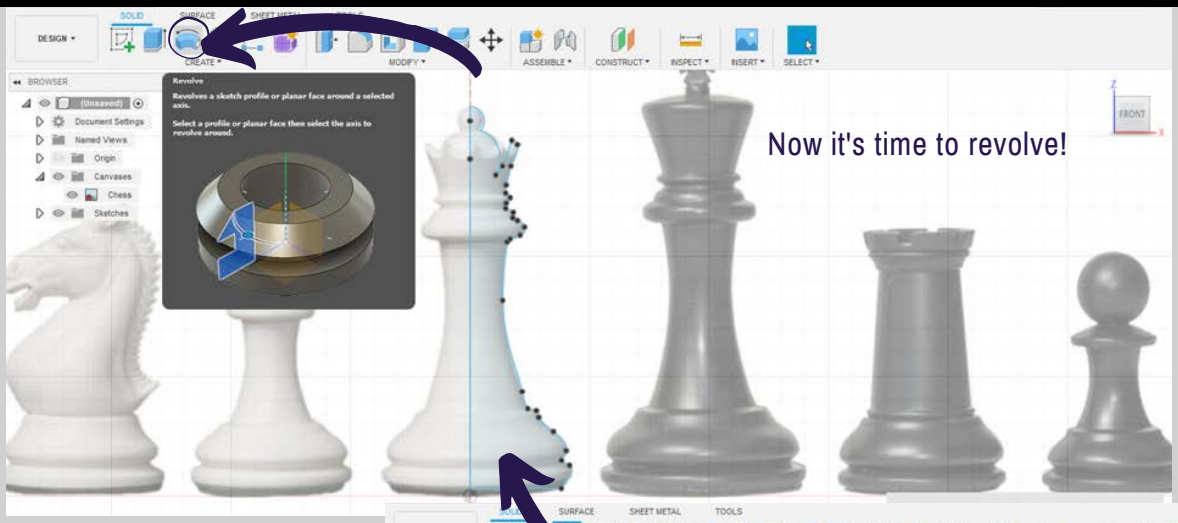
Finally, hide the canvas so you can see what your profile looks like...

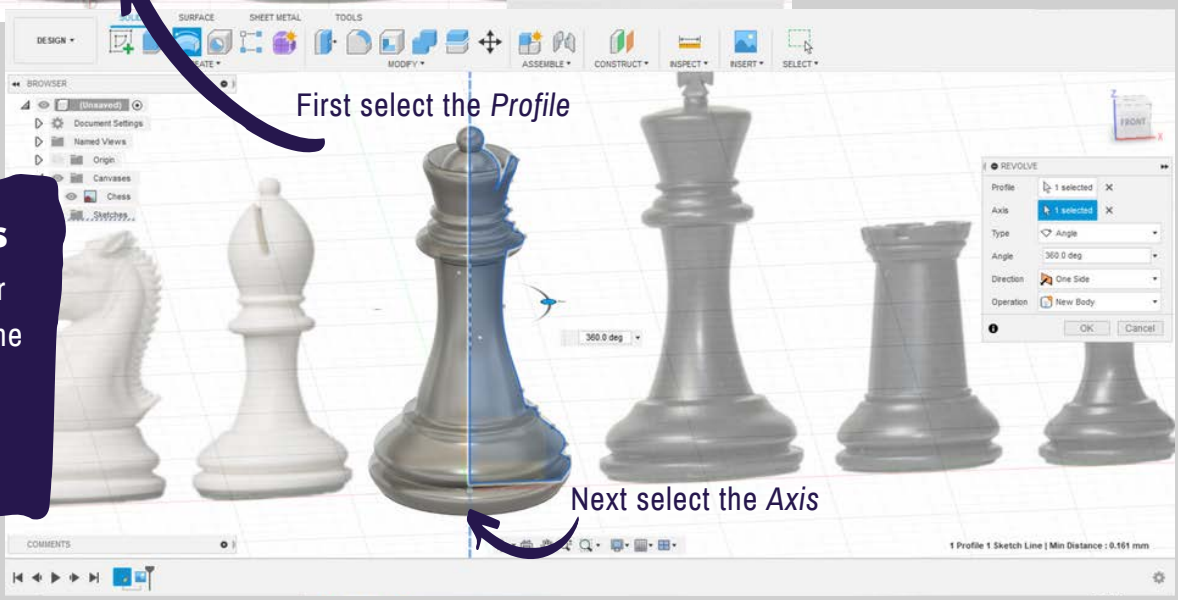


...and draw a line down the middle to complete the profile.
A completed profile will go blue.

CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

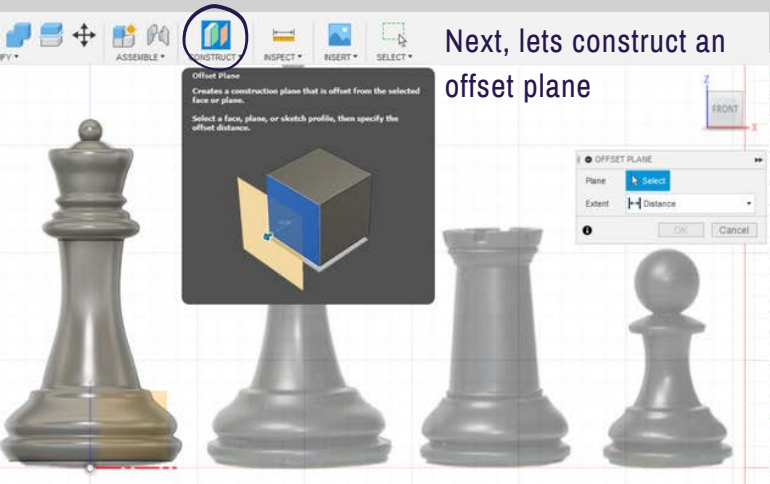
REVOLVE THE BODY

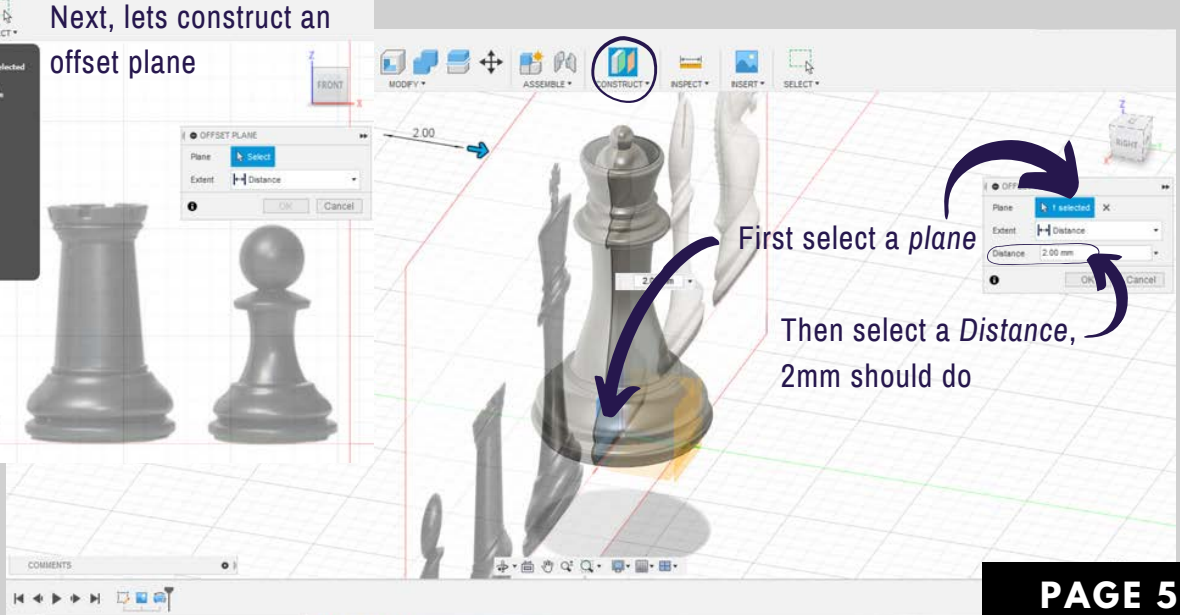




Technical Pointers

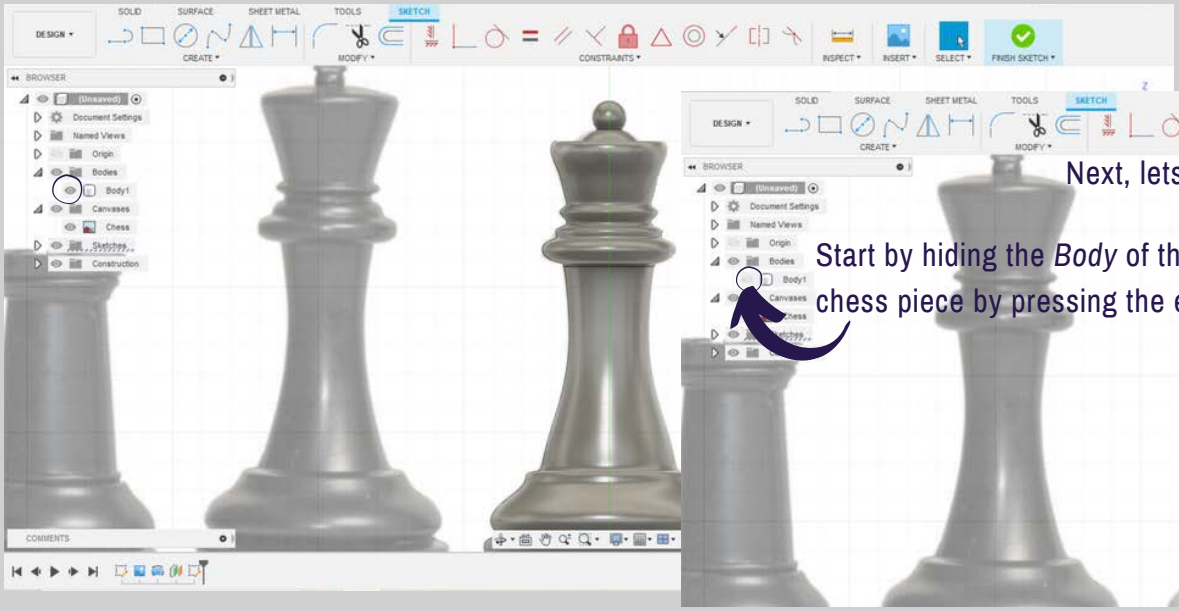
The bar on the bottom is your history bar. If you don't like the look of your model you can double click the sketch icon and edit the original sketch.

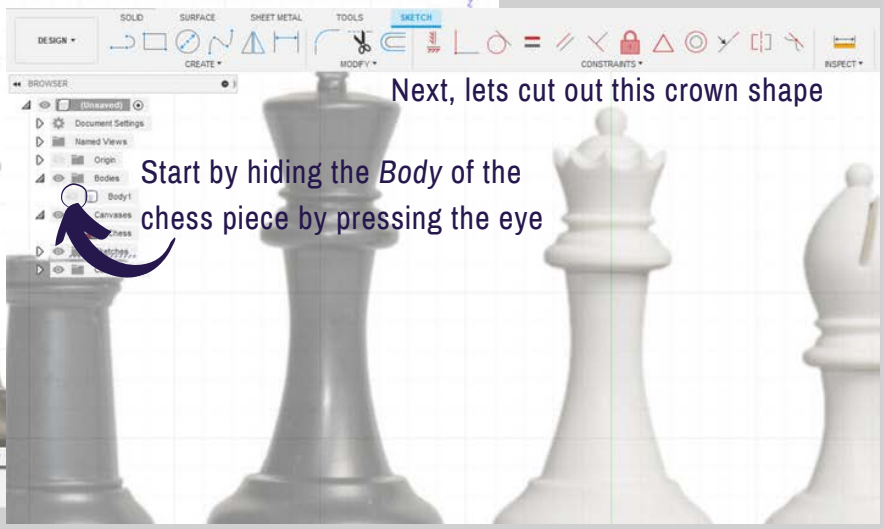




CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

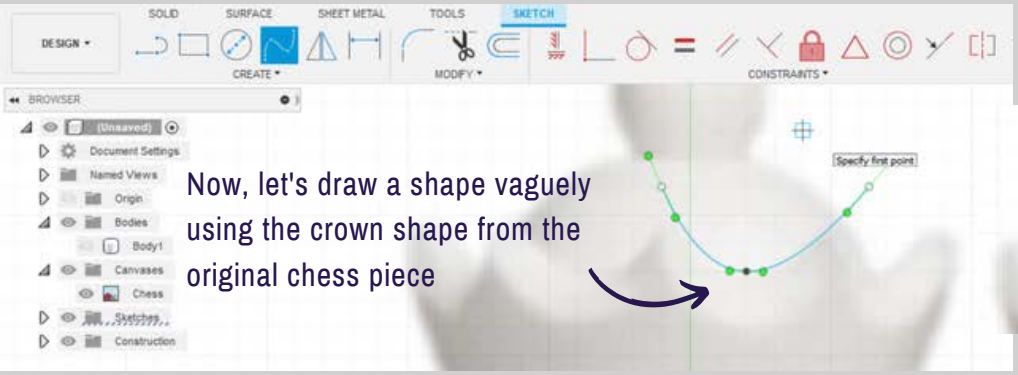
CUT THE CROWN



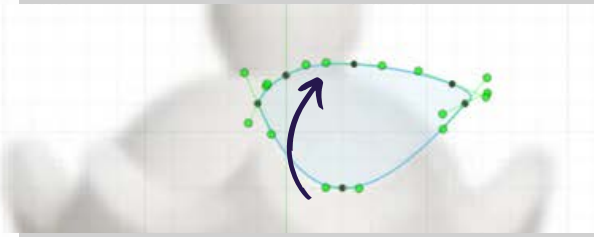


Next, lets cut out this crown shape

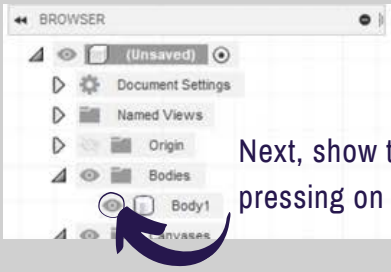
Start by hiding the *Body* of the chess piece by pressing the eye



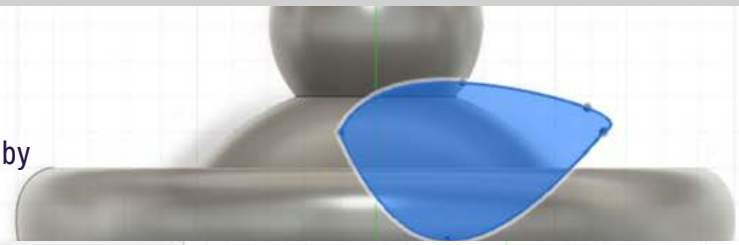
Now, let's draw a shape vaguely using the crown shape from the original chess piece

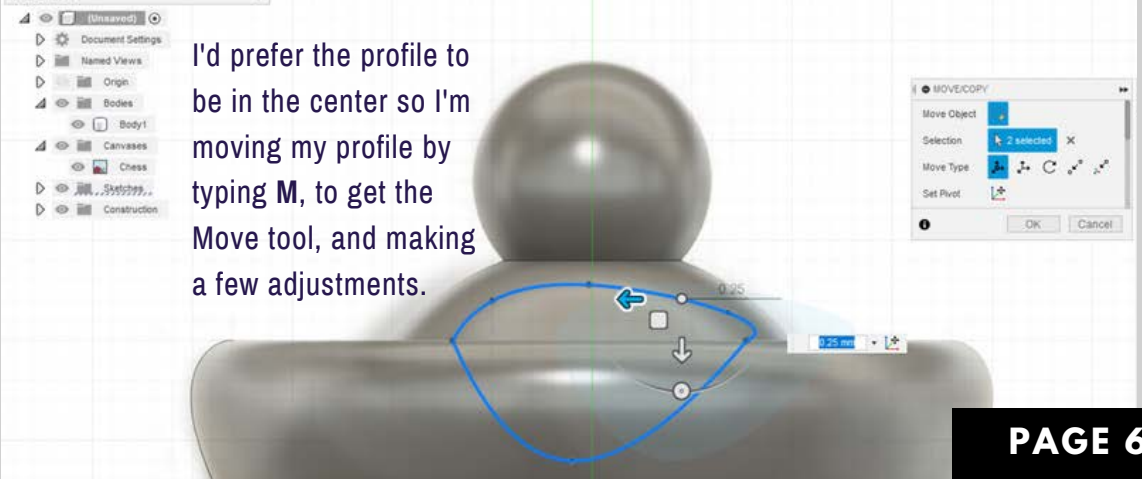


Draw a 'top piece' to complete the profile



Next, show the *Body* by pressing on the eye





I'd prefer the profile to be in the center so I'm moving my profile by typing **M**, to get the Move tool, and making a few adjustments.

CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

CIRCULAR PATTERN

Now, lets cut the *Body* using our new *Profile*.

Use the top view to make sure you're not cutting through the centre piece as well.

You may need to cut in both directions to cut the crown clearly

Once the cut looks good press the **OK** button

Next, lets use our new cut to make a **Circular Pattern**

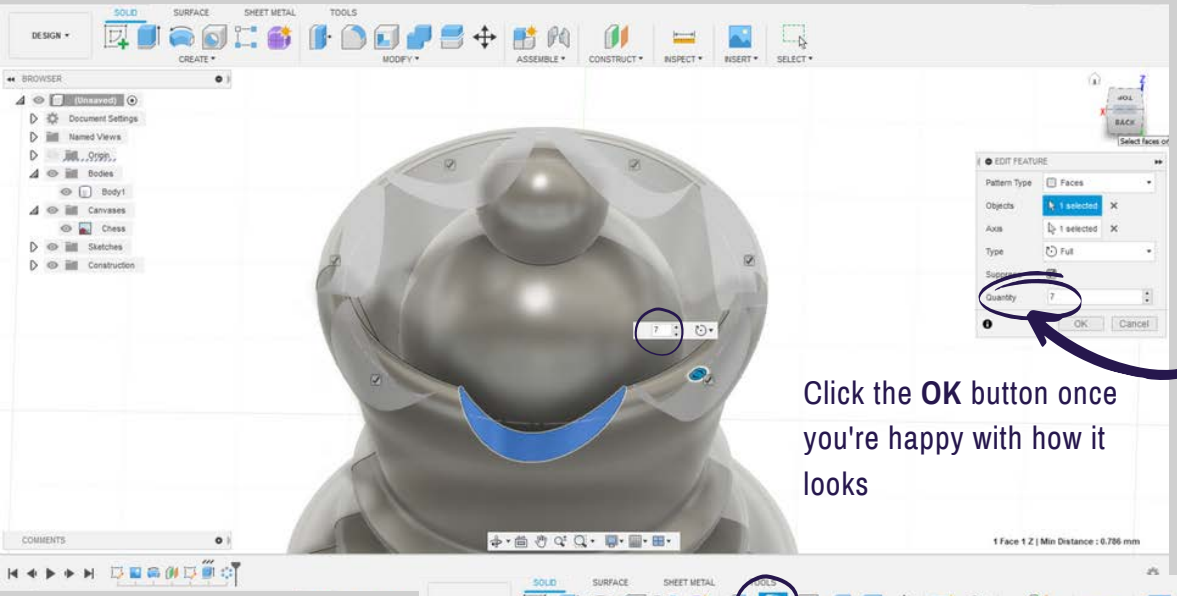
Head to the **Create** menu and go to **Pattern >Circular Pattern**

Select the *Objects*

Then select the *Axis*

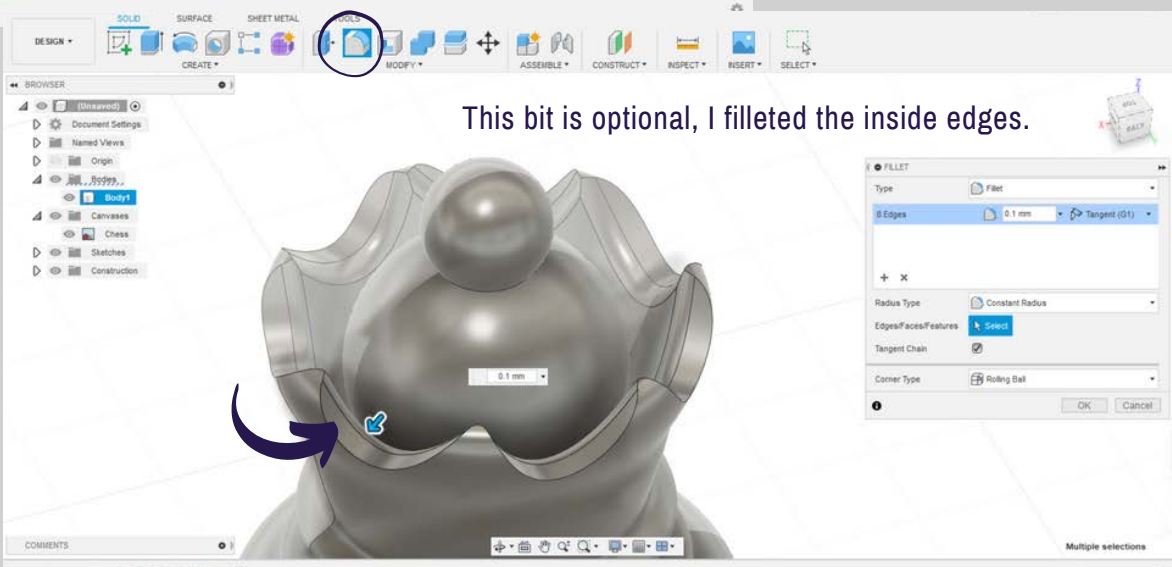
CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

AND IT'S FINISHED

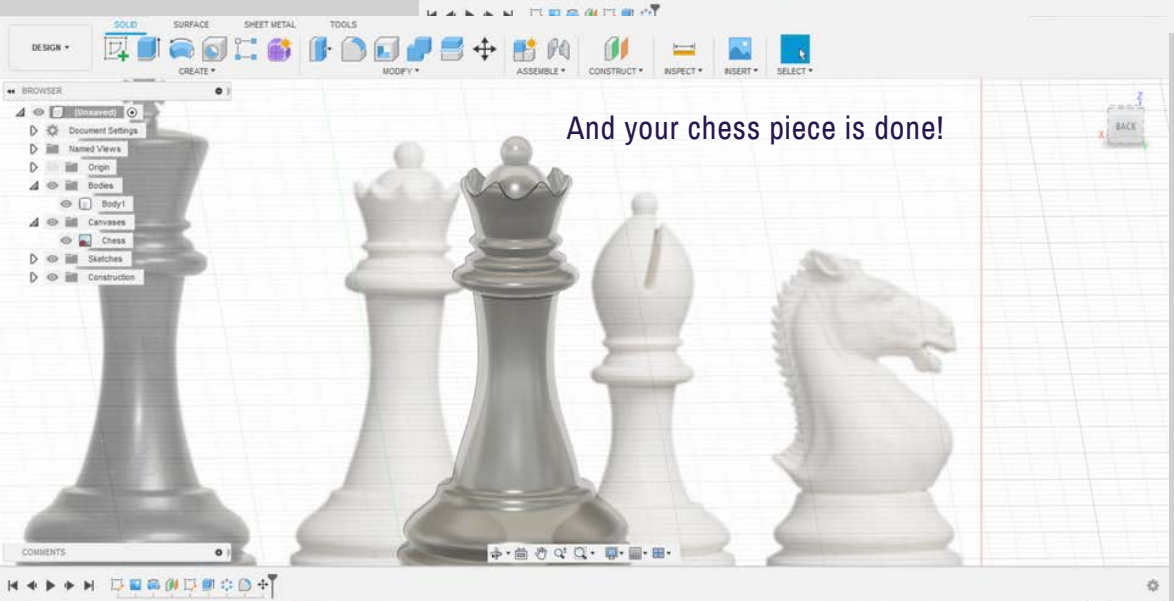


Now, choose how many times the pattern should repeat - I chose 7 to get a nice castle tower look

Click the **OK** button once you're happy with how it looks



This bit is optional, I filleted the inside edges.

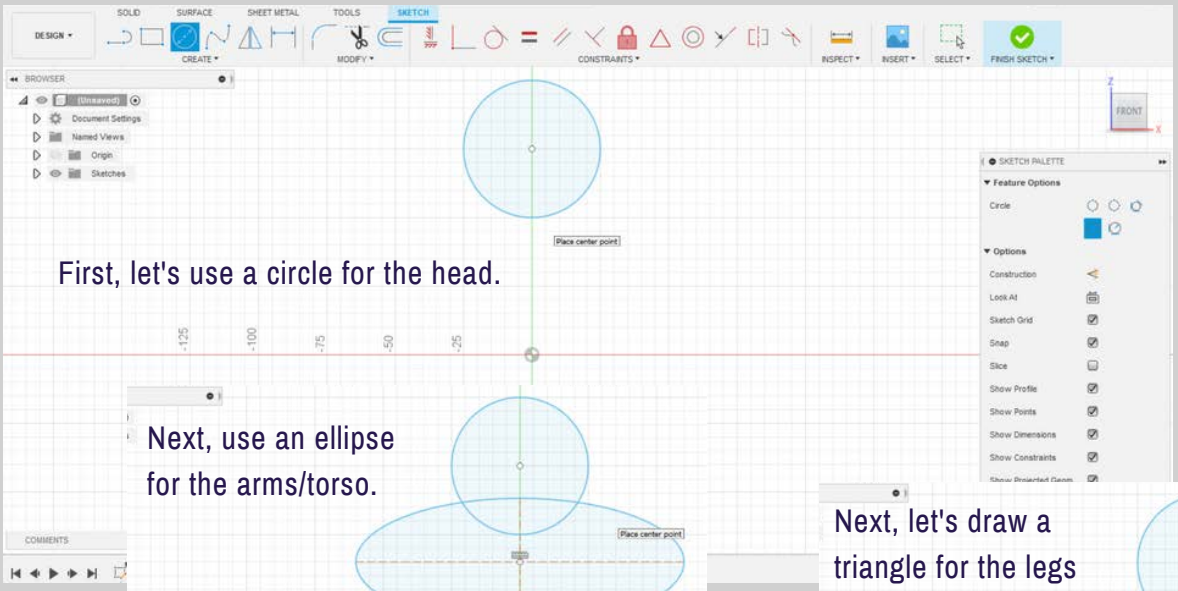


And your chess piece is done!

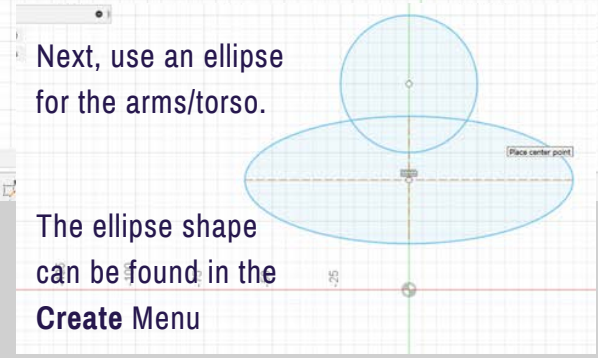
CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

MAKE A MEEPLE

A different kind of game piece, lets model a Meeple for a modern board game.

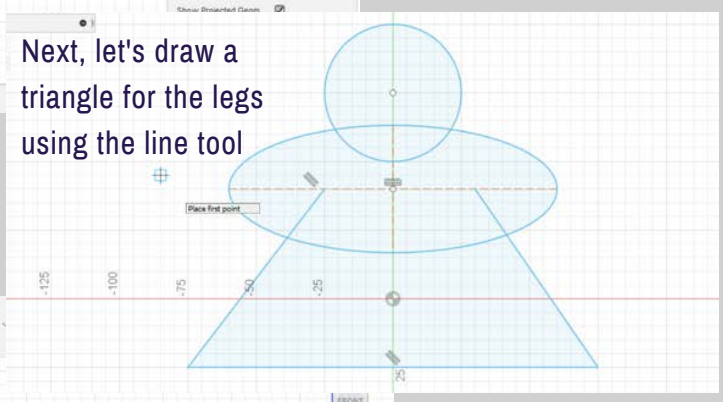


First, let's use a circle for the head.

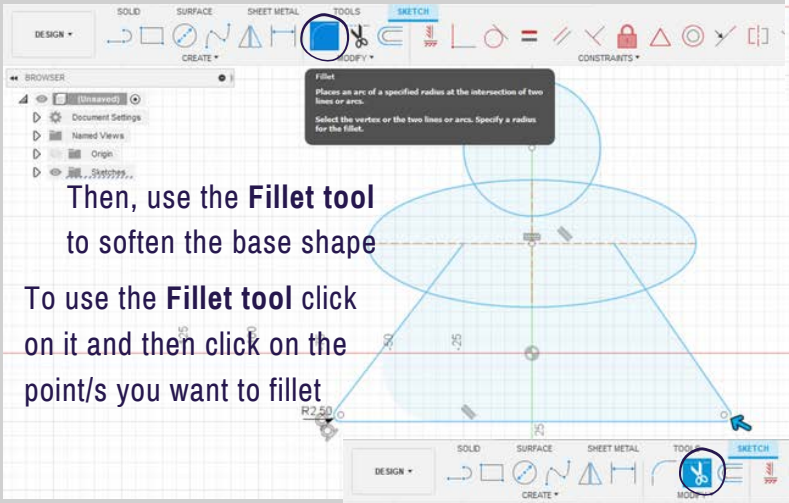


Next, use an ellipse for the arms/torso.

The ellipse shape can be found in the **Create** Menu

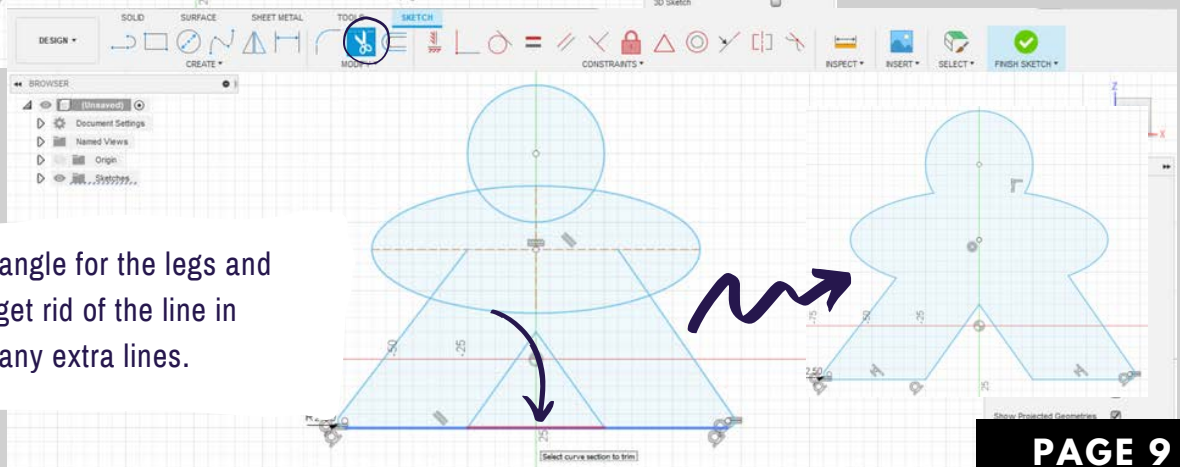


Next, let's draw a triangle for the legs using the line tool



Then, use the **Fillet tool** to soften the base shape

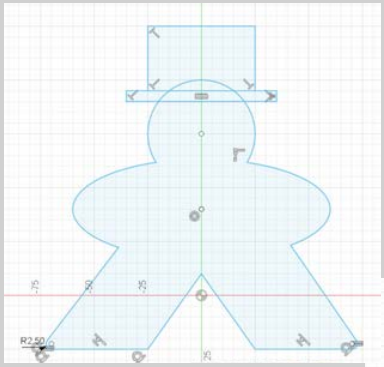
To use the **Fillet tool** click on it and then click on the point/s you want to fillet



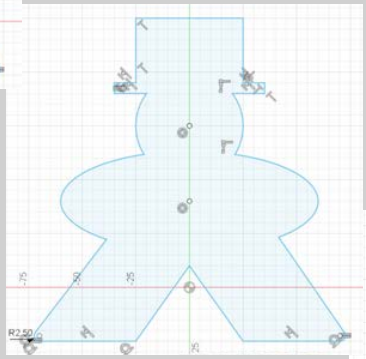
Finally, draw in a triangle for the legs and use the trim tool to get rid of the line in between as well as any extra lines.

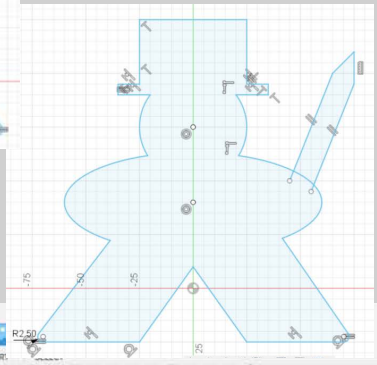
CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

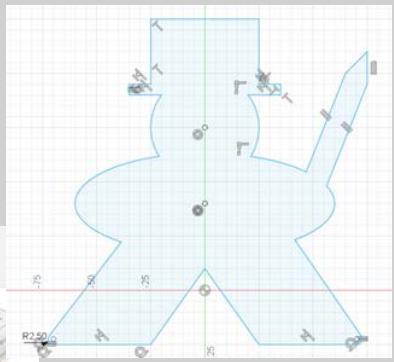
DECORATE IT



Now, lets draw some accessories. For this Meeple I drew a top hat and a sword. Feel free to decorate your Meeple however you see fit, just remember to trim the internal lines so you get a clean silhouette

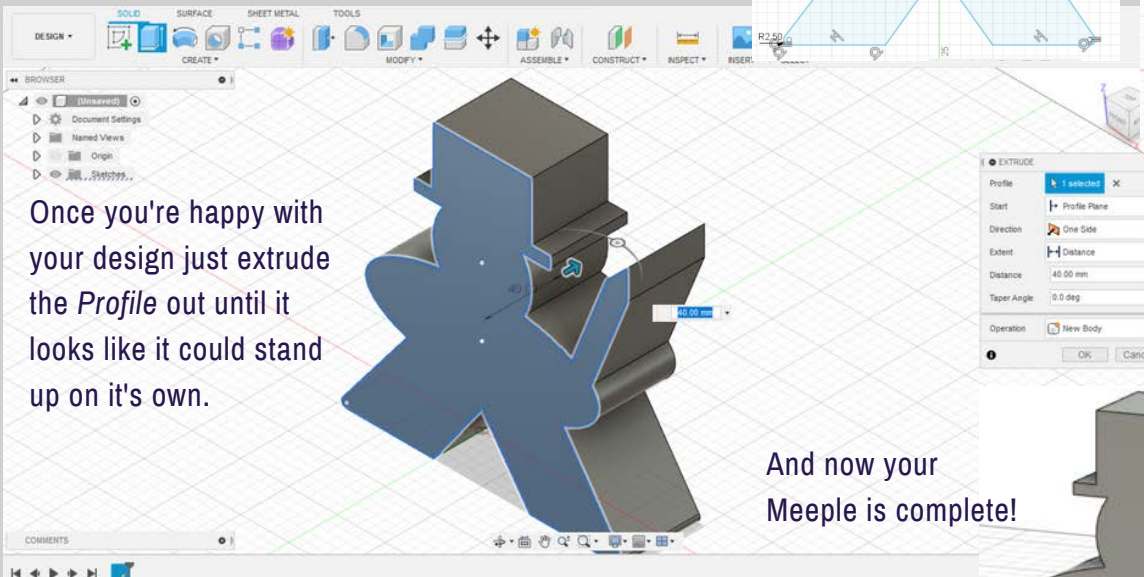






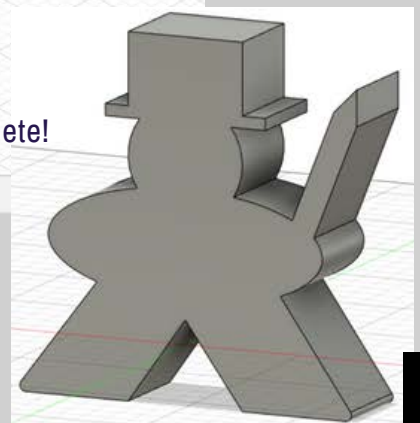
Technical Pointers

How do I finish a line?
When drawing lines unless you close the shape, Fusion will assume you want to keep on drawing. To finish just press the **green tick** or press the **escape** button.



Once you're happy with your design just extrude the *Profile* out until it looks like it could stand up on it's own.

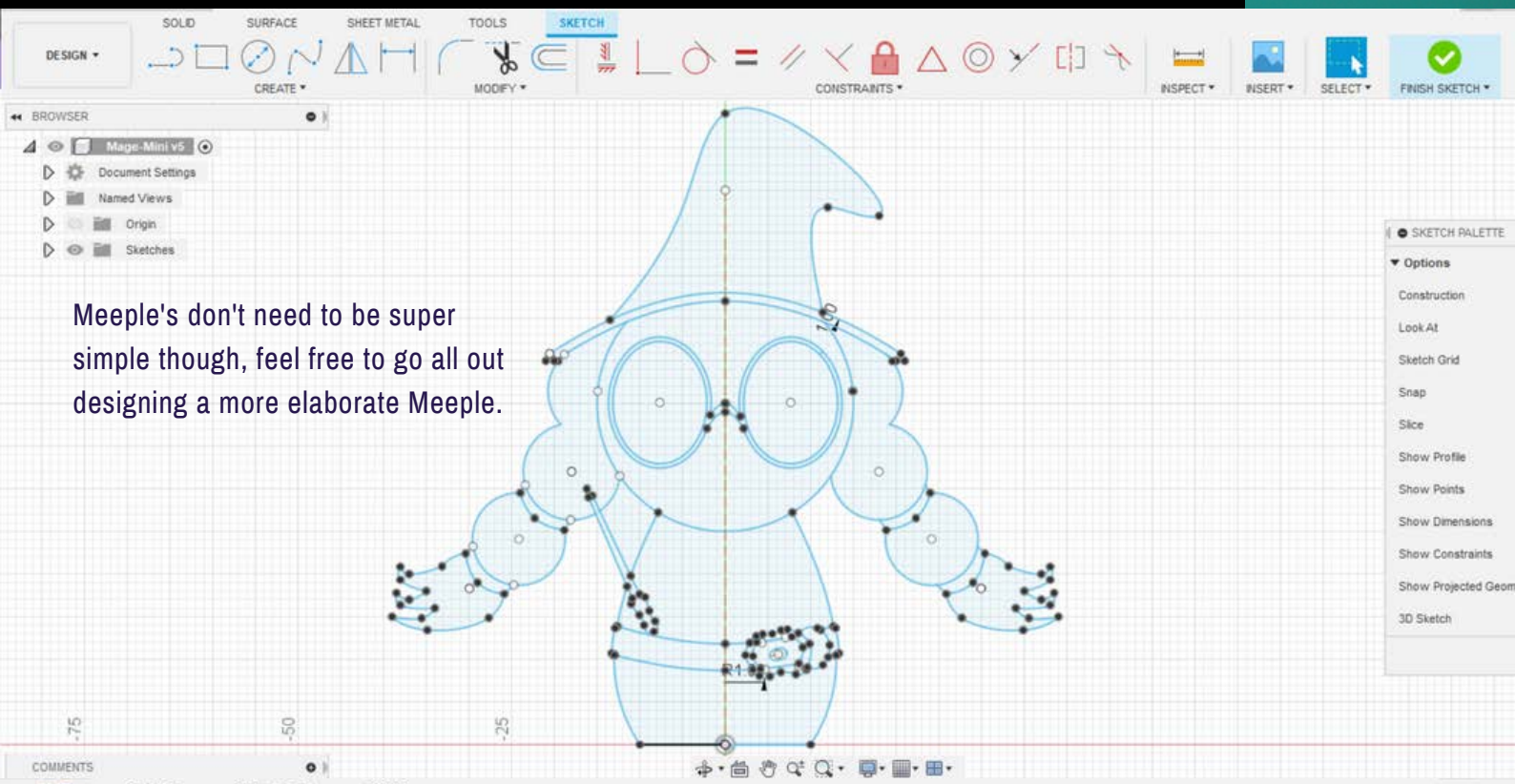
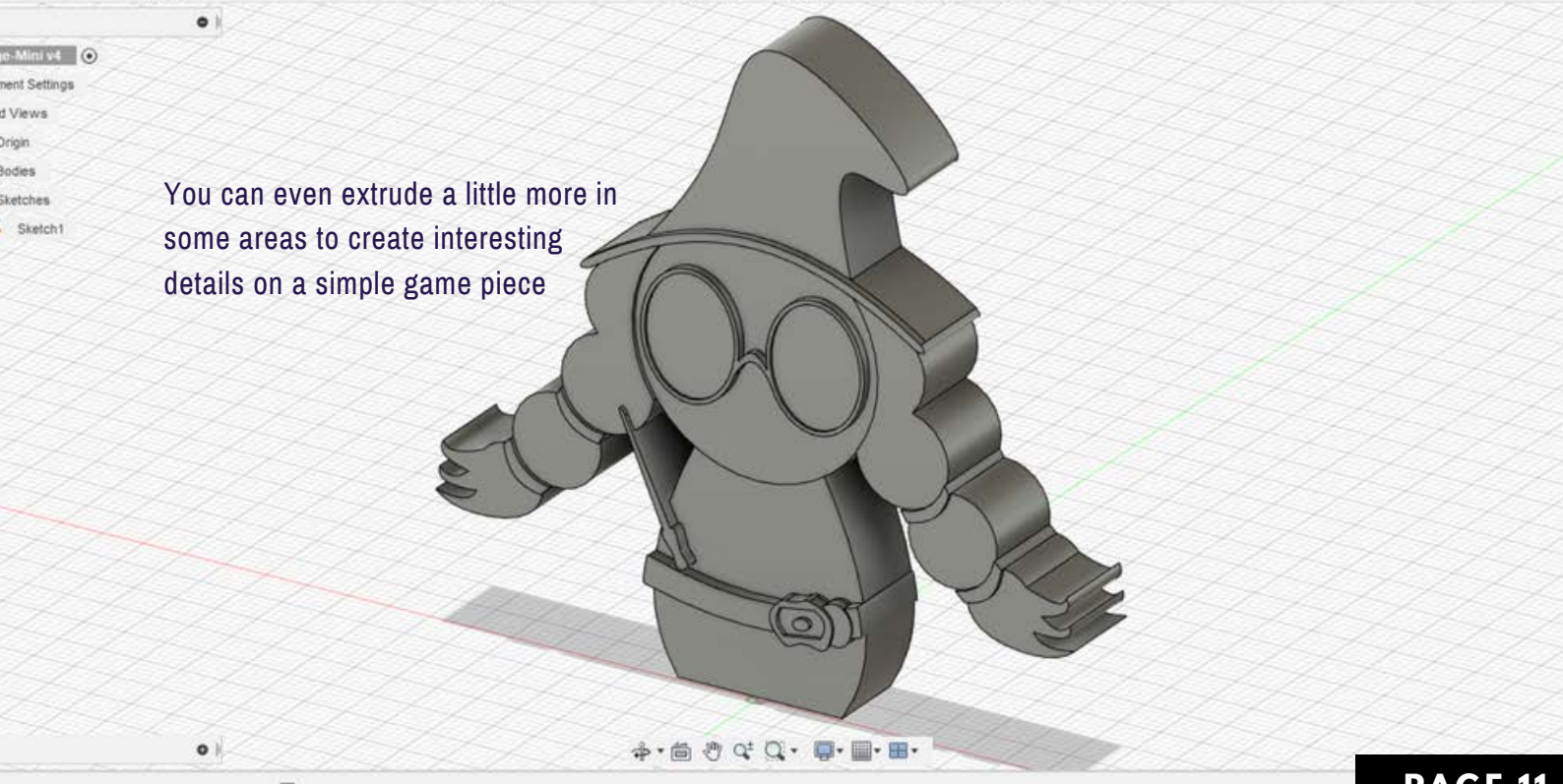
And now your Meeple is complete!



CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

MORE DESIGN IDEAS

Meeple's don't need to be super simple though, feel free to go all out designing a more elaborate Meeple.



You can even extrude a little more in some areas to create interesting details on a simple game piece