MAKER GUIDE

INTRODUCTION TO BLENDER

CITY OF CANADA BAY LIBRARIES
THE LEARNING SPACE

BEGINNER

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CITY OF CANADA BAY LIBRARIES
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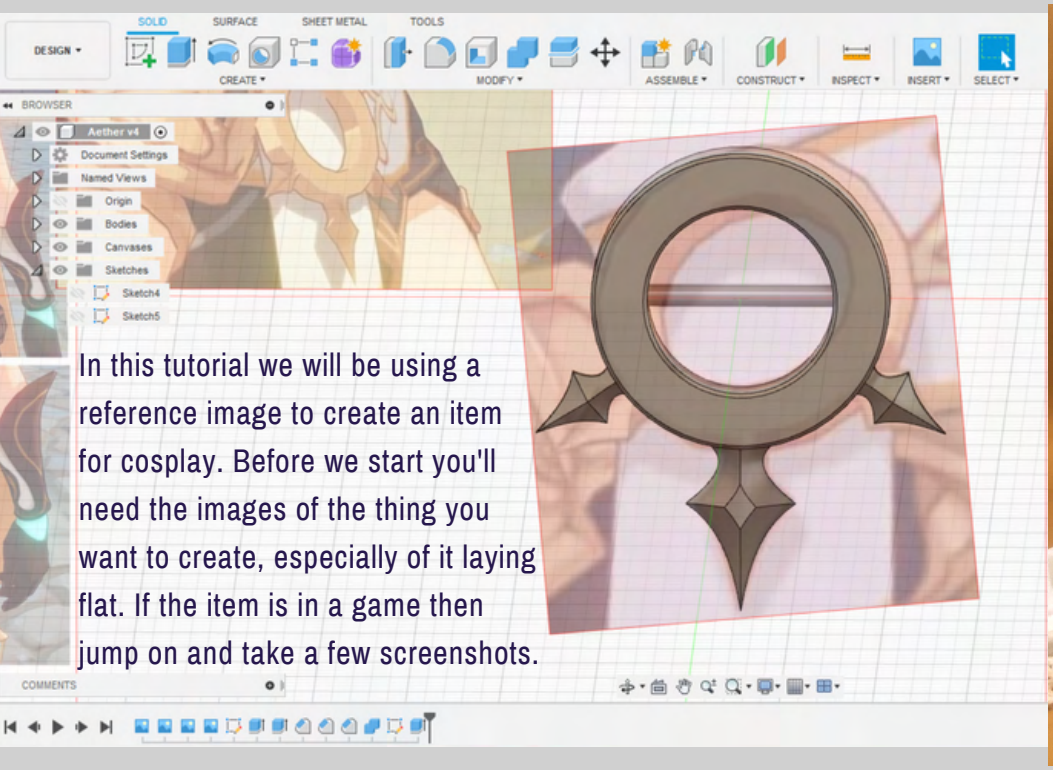
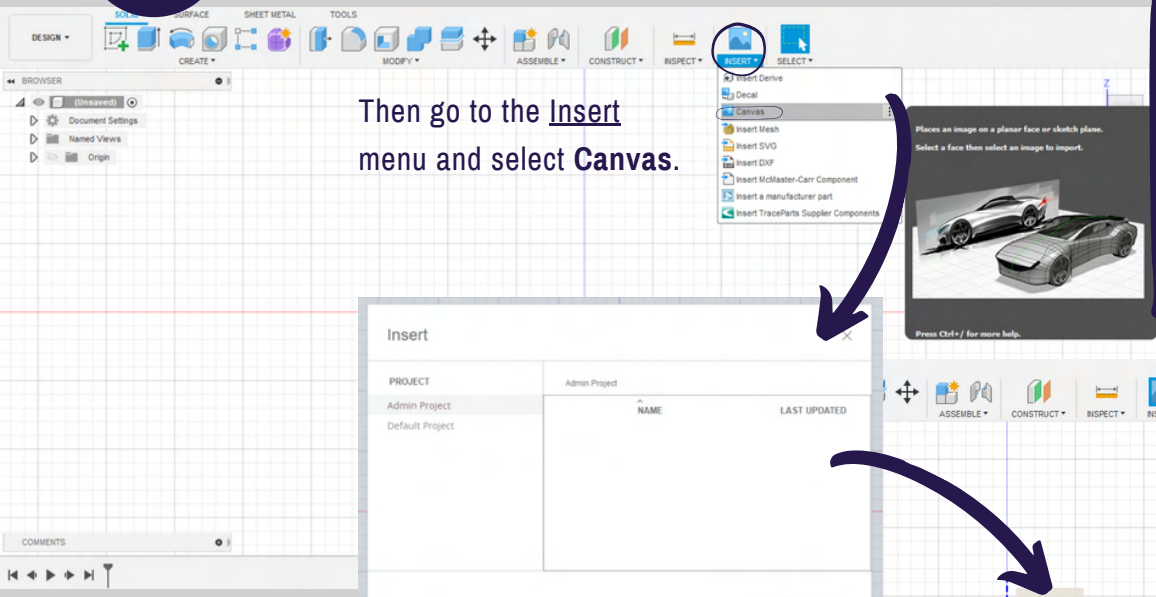
PAGE 1



In this tutorial we will be using a reference image to create an item for cosplay. Before we start you'll need the images of the thing you want to create, especially of it laying flat. If the item is in a game then jump on and take a few screenshots.

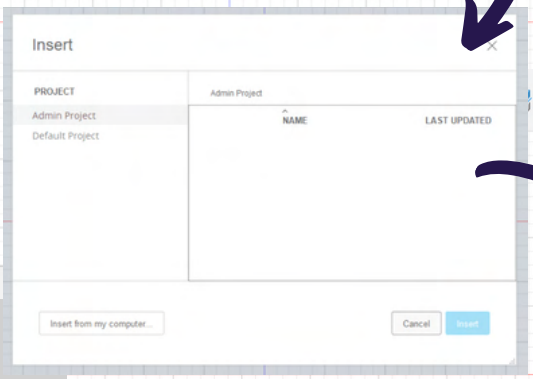
1 To start we're going to insert the reference images into Fusion 360. First use the View Cube to go to the front plane.

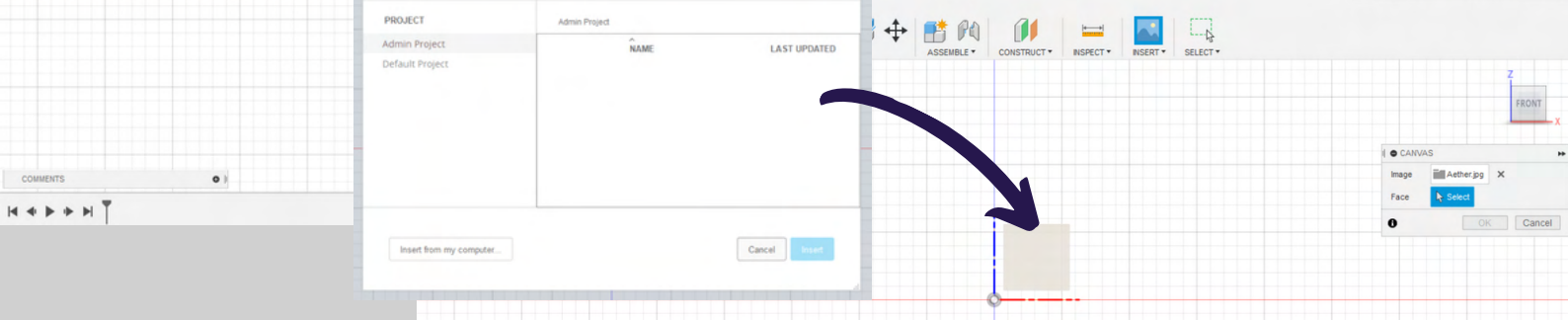


Then go to the Insert menu and select **Canvas**.

Technical Pointers

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





Next, select an image and select the orange box (it will turn grey when you hover over it) to place your image down.

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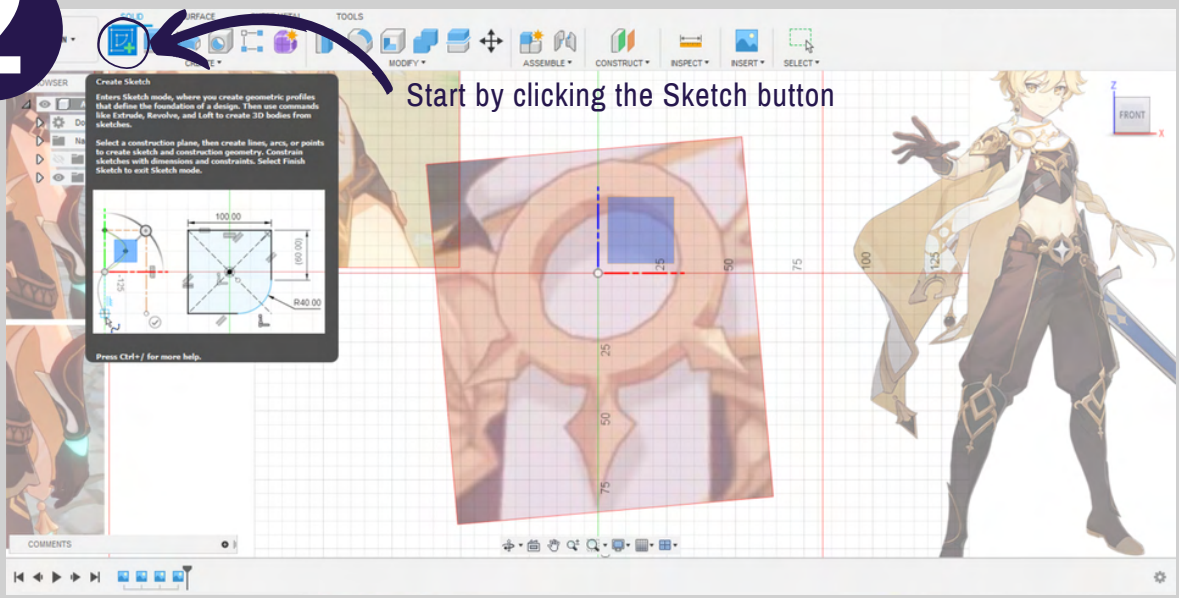
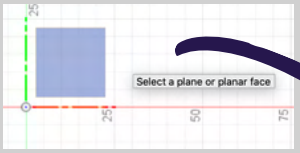
2

Once you've placed all your reference images it's time to start sketching.



Technical Pointers

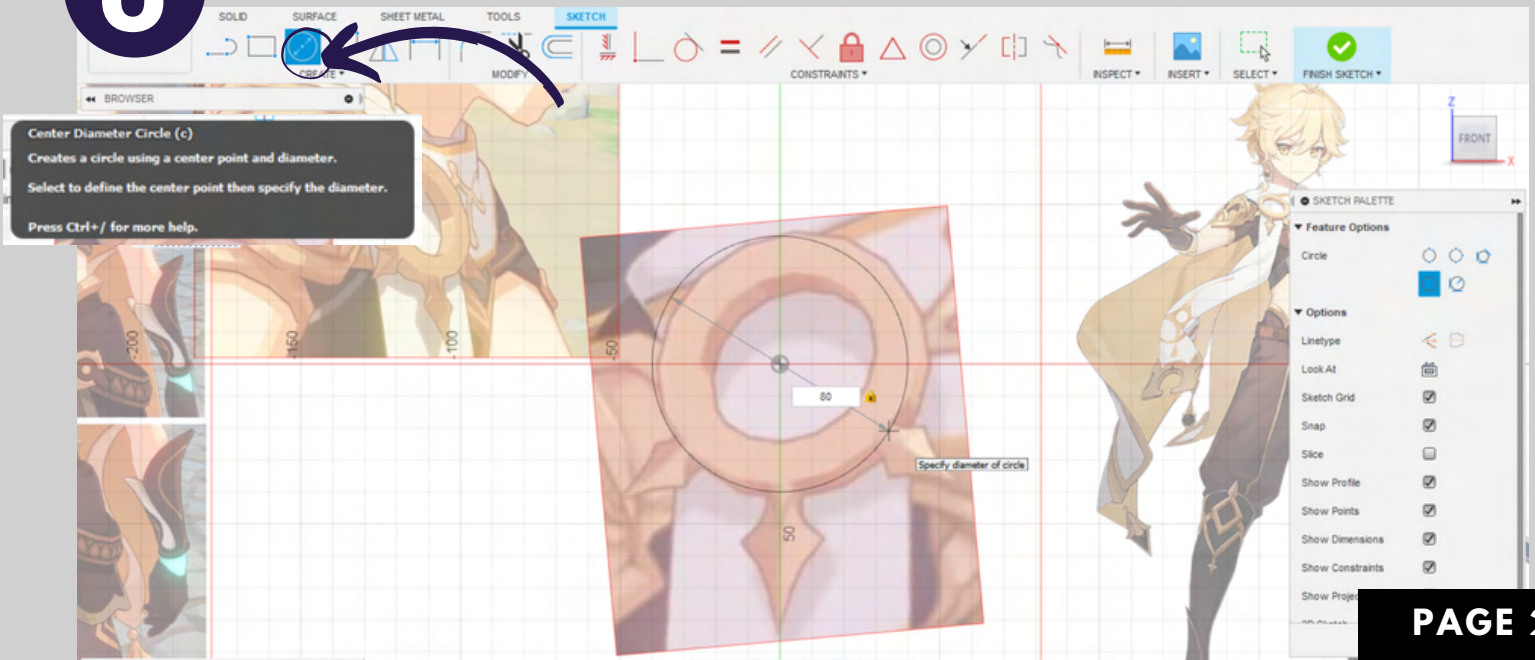
When you start Fusion you'll be in the **Design Workspace** and the Solid Tab.
When you start a sketch you'll enter the Sketch Tab.



When you start a sketch you'll need to select a plane to work on. Select the plane by hovering over it and clicking.

3

Next, outline the main shapes in your cosplay item. This scarf holder features a very large circle so that's where I started. To get the best results, use basic shapes as the base.



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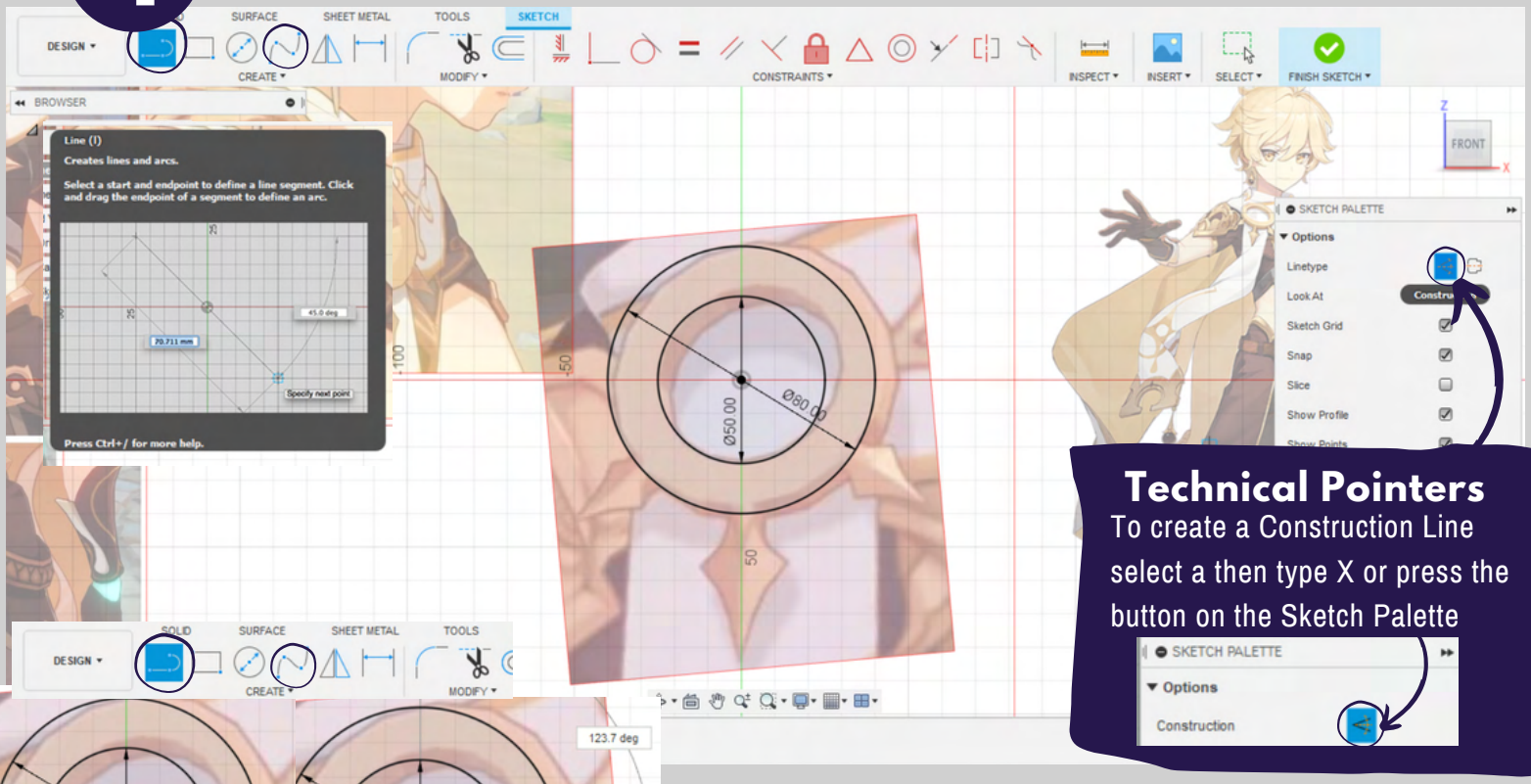
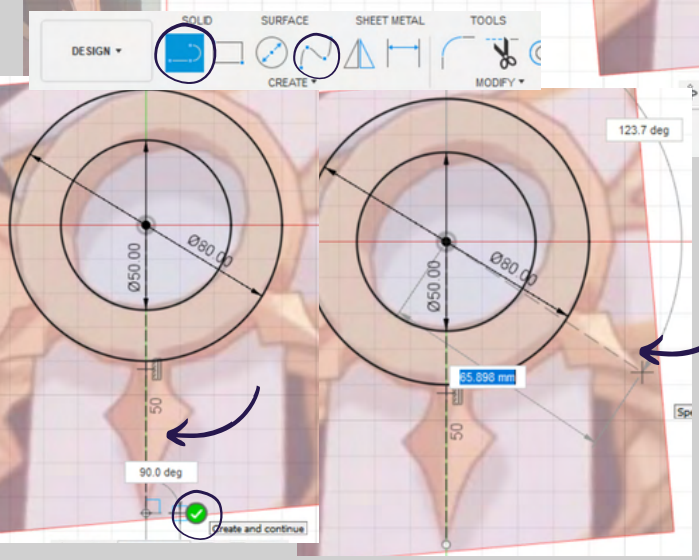
The next big shape in this design is the inner circle. Then I'll use the **line** tool and **Fit Point Spline** tool to draw the scarf holders spikes.

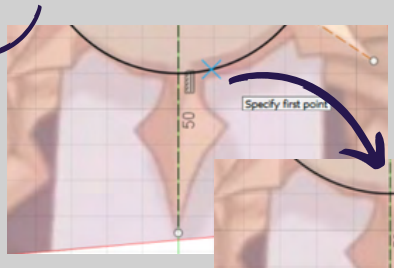


Technical Pointers

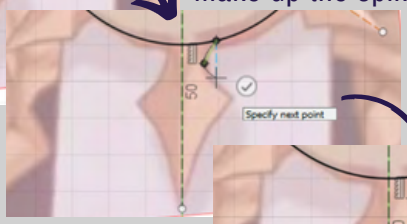
To create a Construction Line select a then type X or press the button on the Sketch Palette

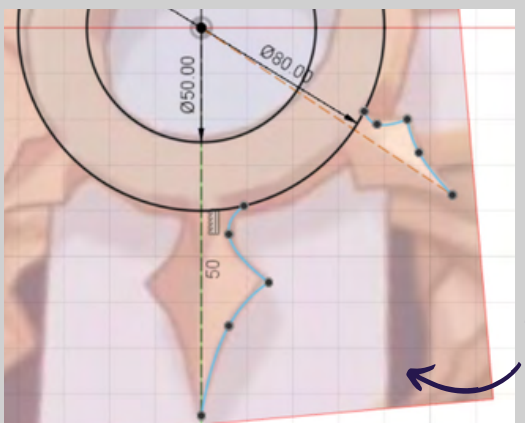


First I drew two lines that could act as mirror points for the shape. I selected the **construction** line option from the Sketch Palette so both were construction lines while I was drawing them



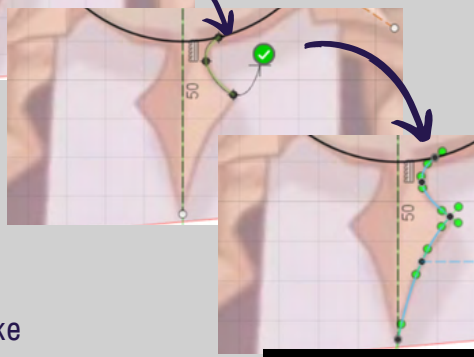
Next I used the **Fit Point Spline** tool to draw the two curves that make up the spike





Note how I stopped each **Fit Point Spline** at the point of the spike. The tool dosen't tend to handle sharp edges well so this is a way to get sharp edges.

Then I repeated the process for the other spike



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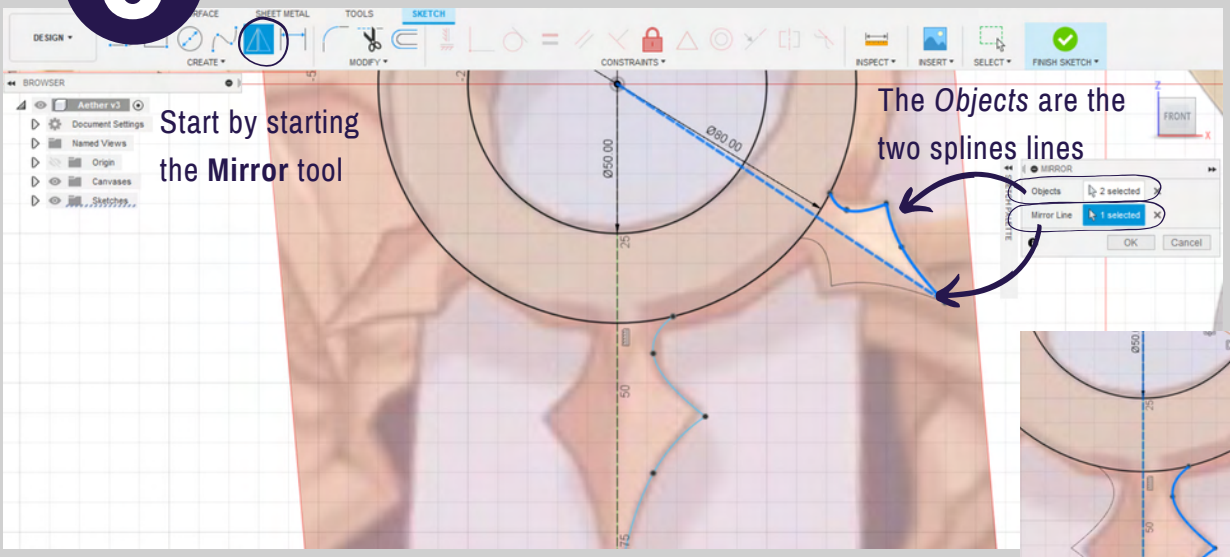
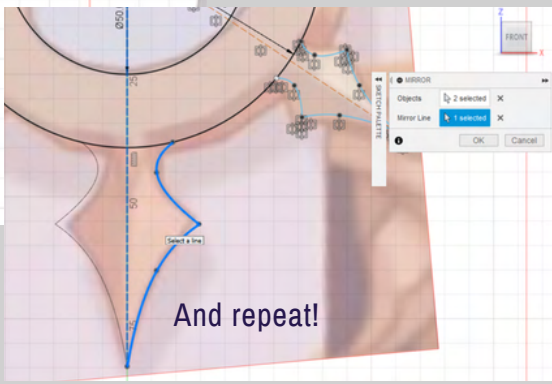
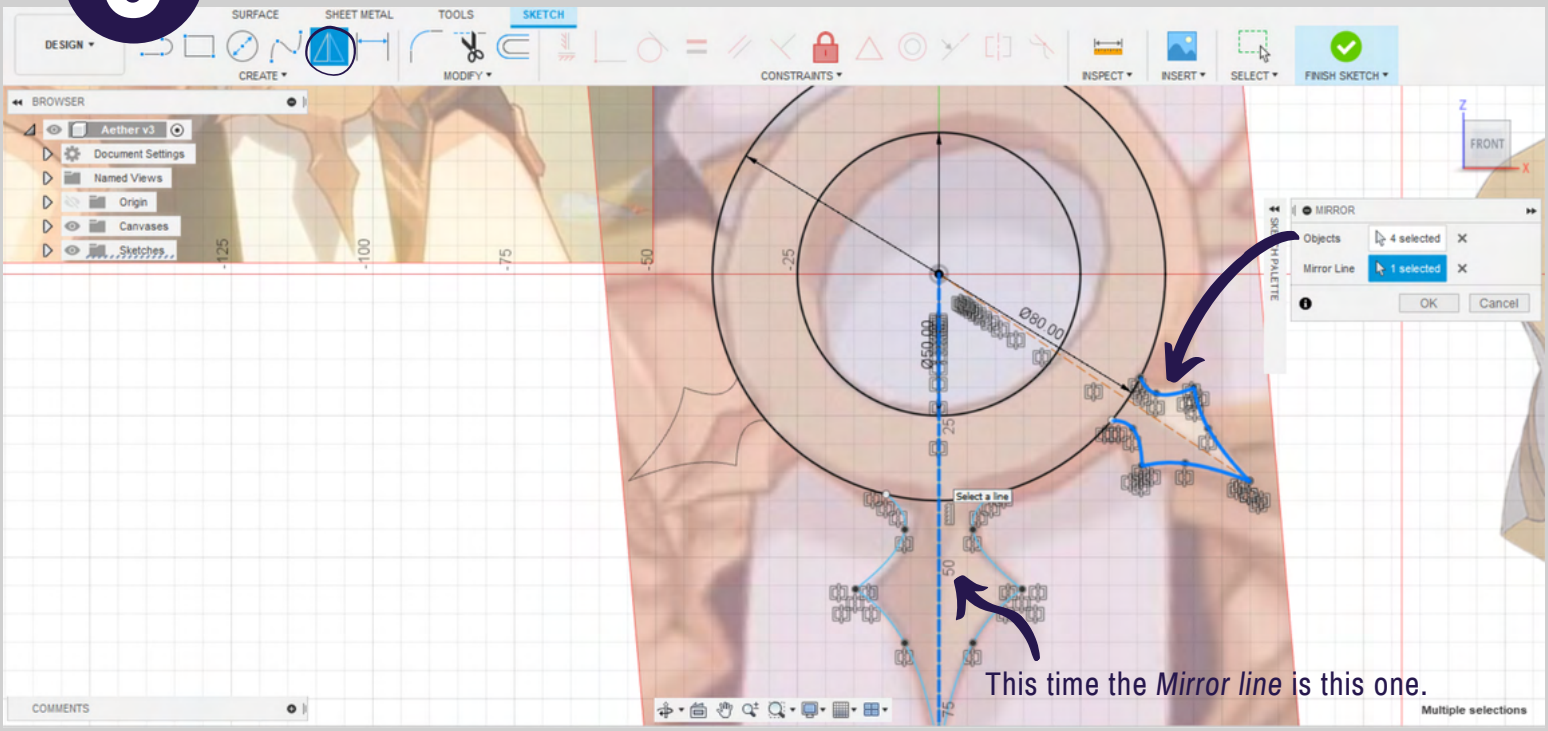
First I'm going to mirror each spike half to make a whole spike.

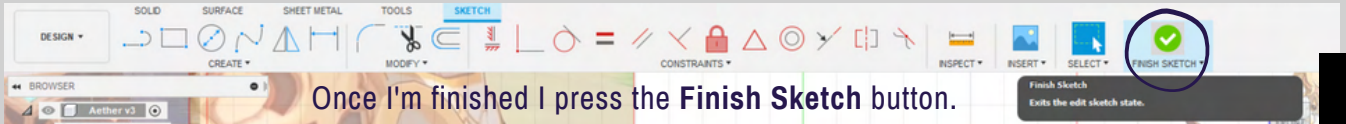




6

Next I'm going to mirror the right spike onto the left.





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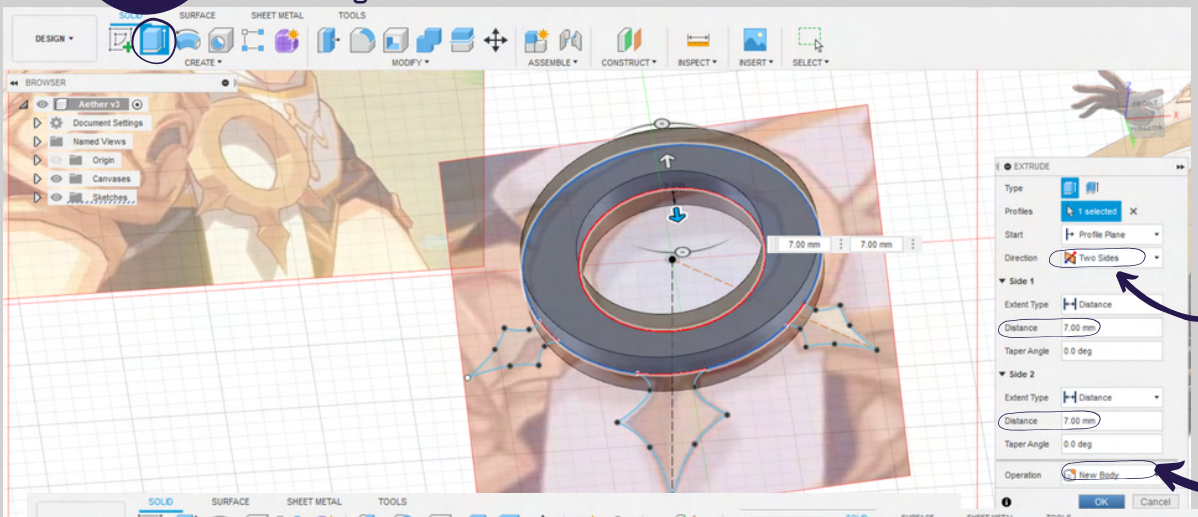
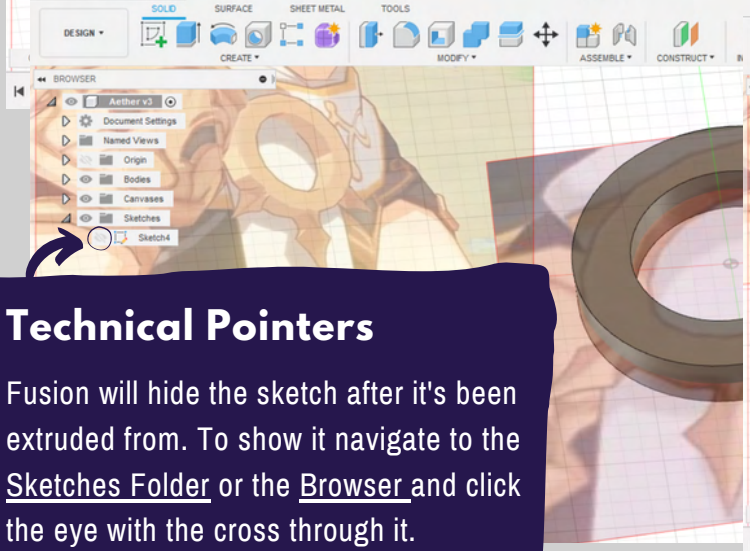
MAKE IT 3D

7

Next I'm going to extrude my 2D sketch into a 3D model! One of the biggest things I'm doing is extruding in both directions, this keeps the model in the middle of the space and will make some things much easier.

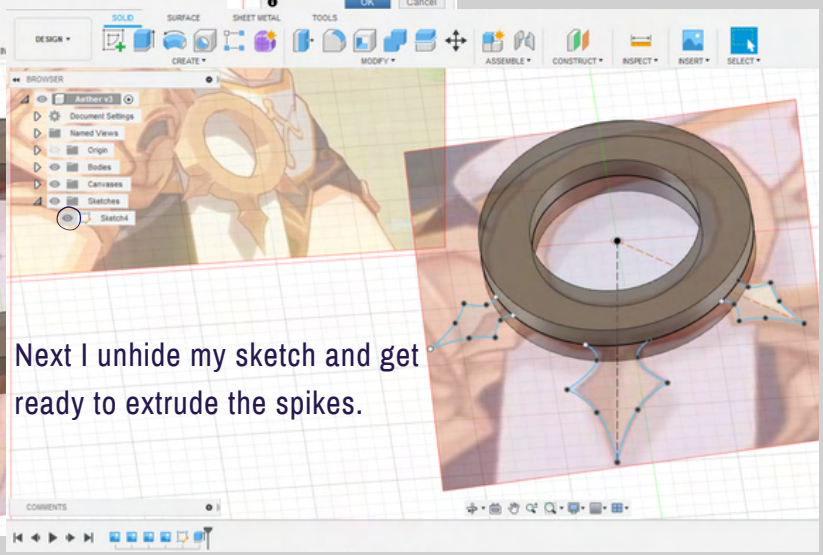


When extruding here I'm making sure I'm extruding equally (7mm) in two *Directions* and I'm making sure I'm extruding a *New Body*.



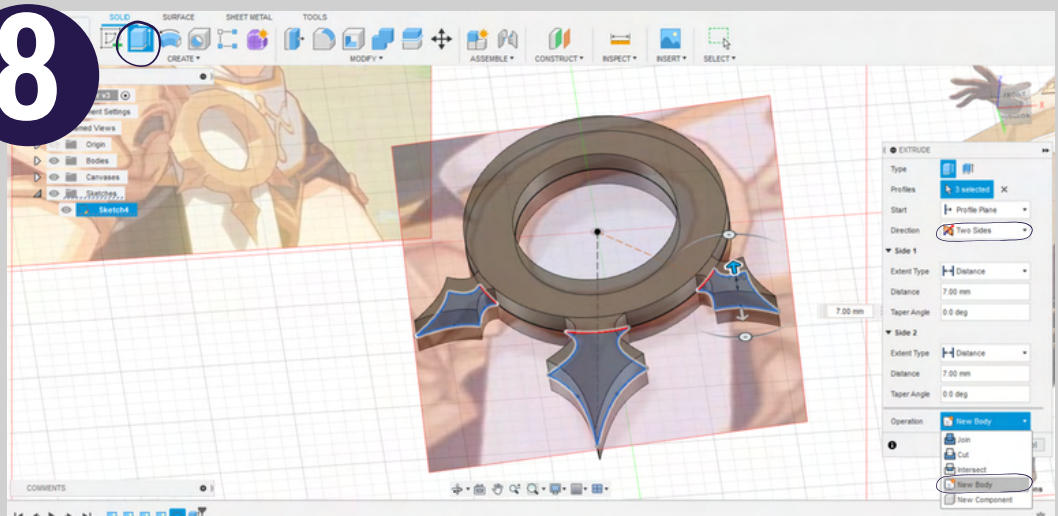
Technical Pointers

Fusion will hide the sketch after it's been extruded from. To show it navigate to the Sketches Folder or the Browser and click the eye with the cross through it.



Next I unhide my sketch and get ready to extrude the spikes.

8



I start the **Extrude** tool again and extrude the same way as last time (7mm in two directions) and make sure this is a ***New Body*** so I can edit the spikes independently of the ring.

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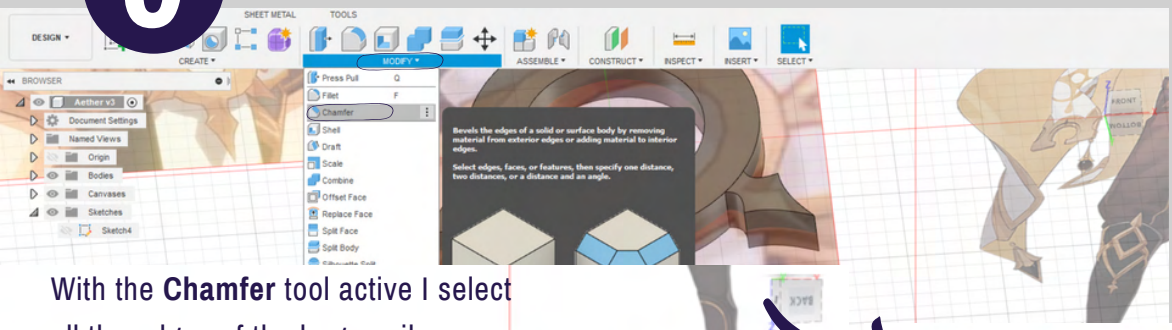
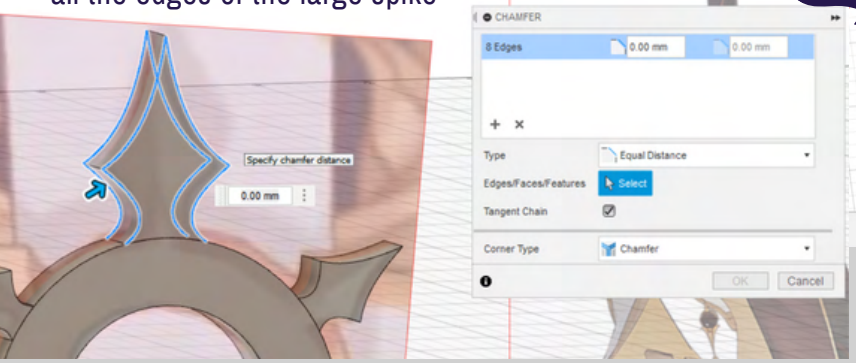
CHAMFER IT

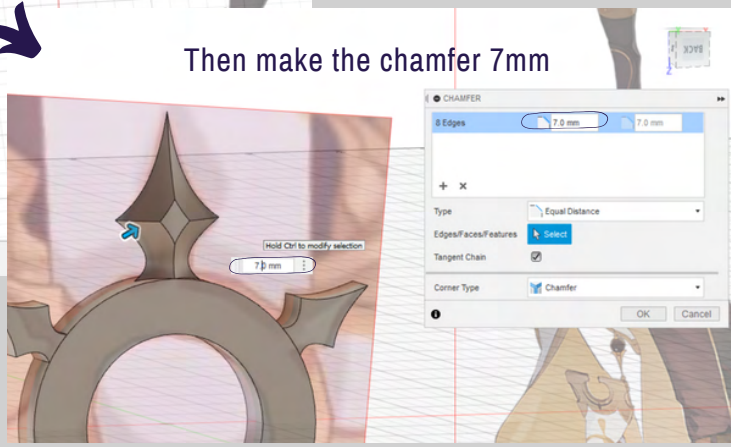
9 Next I'm going to make those spikes sharp by using the **Chamfer** tool.



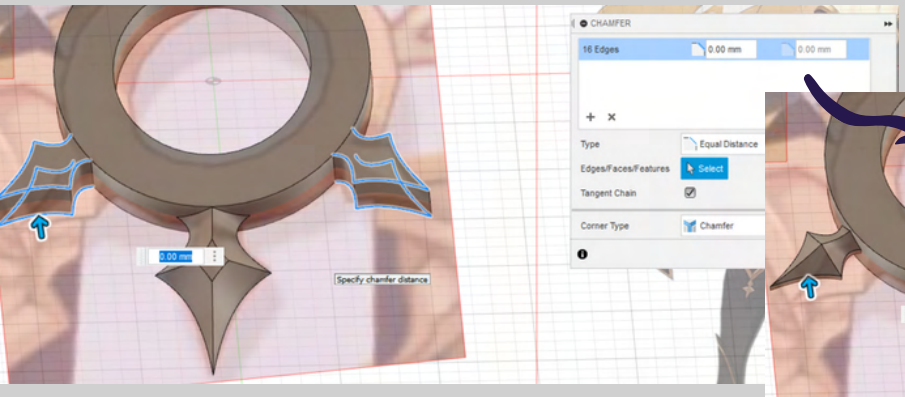
With the **Chamfer** tool active I select all the edges of the large spike

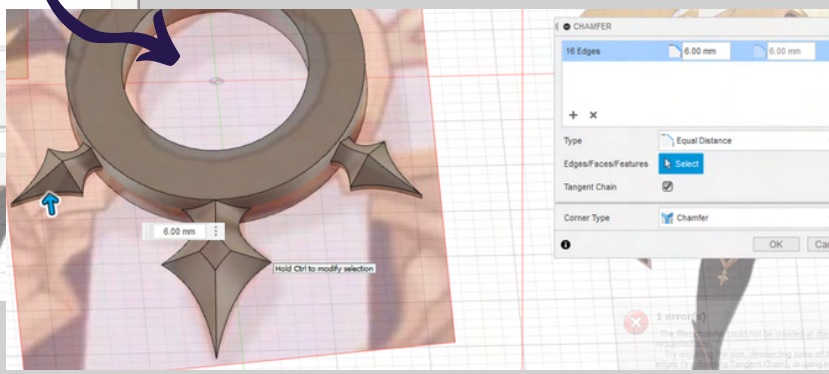


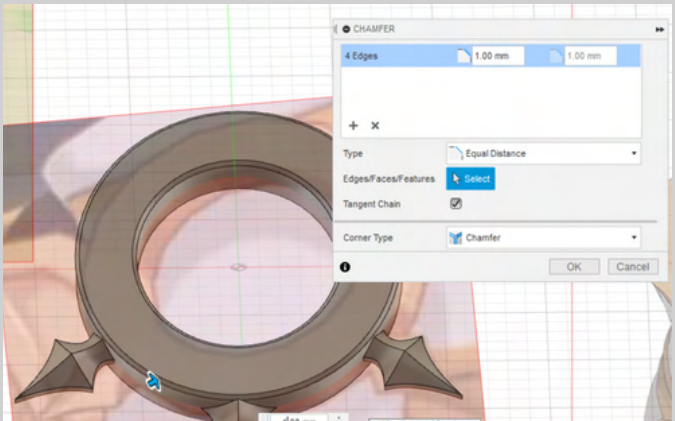
Then make the chamfer 7mm



Then I repeated the process on the smaller outer spikes with a 6mm chamfer







Finally I repeated the process for the ring edges, just for a nice finish.

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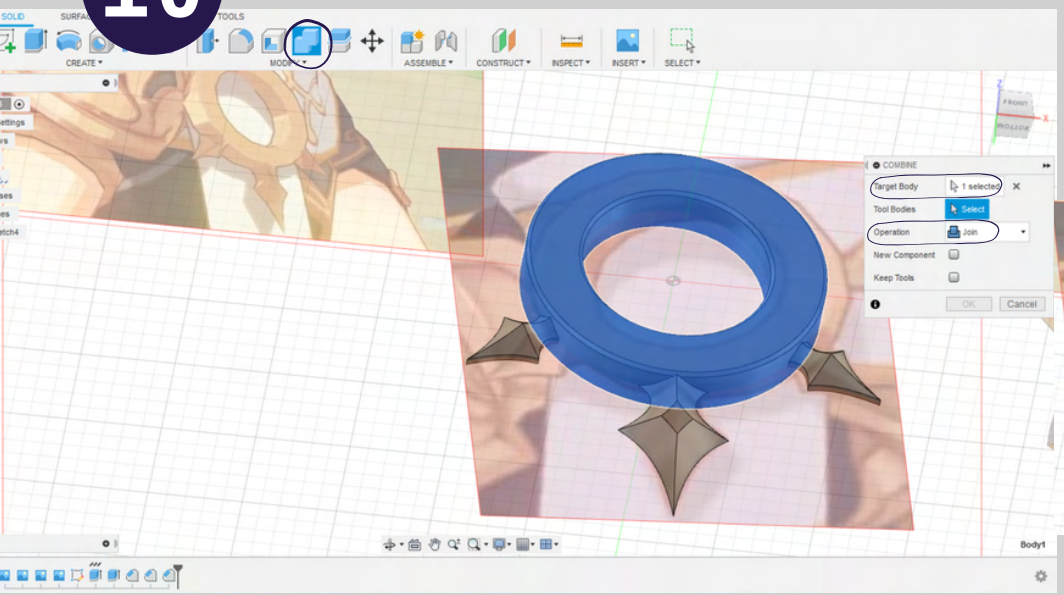
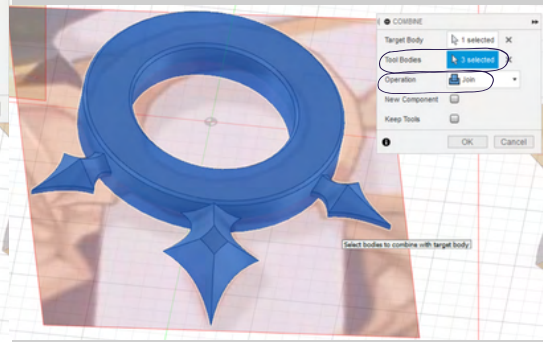
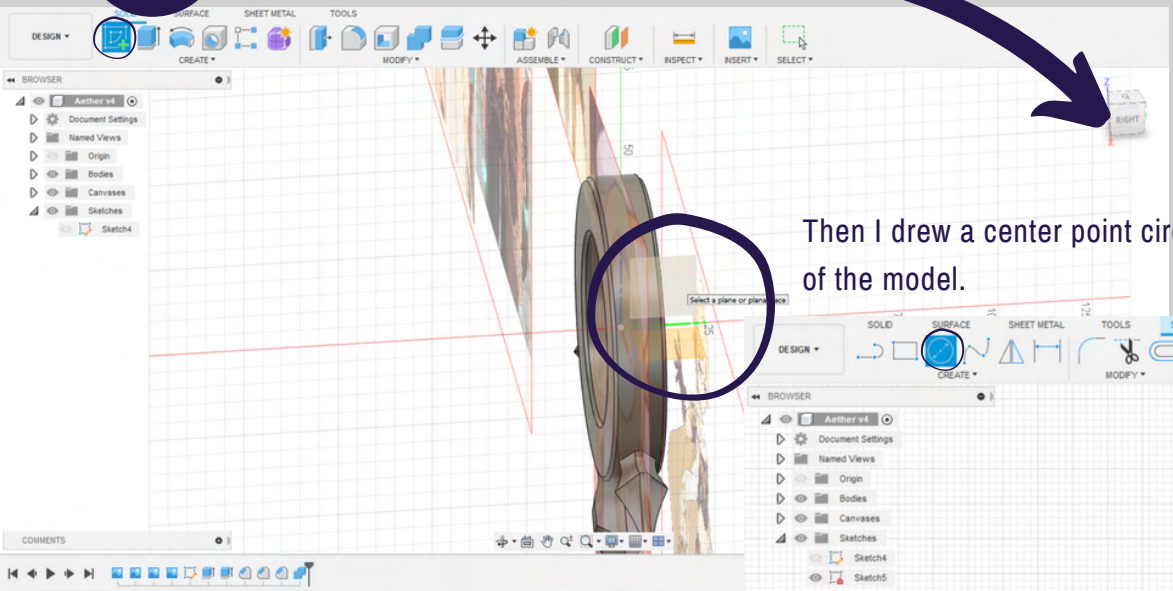
SKETCH THE BAR

10 Then I use the **Combine** tool to bring the 4 bodies together and I have a completed scarf holder!

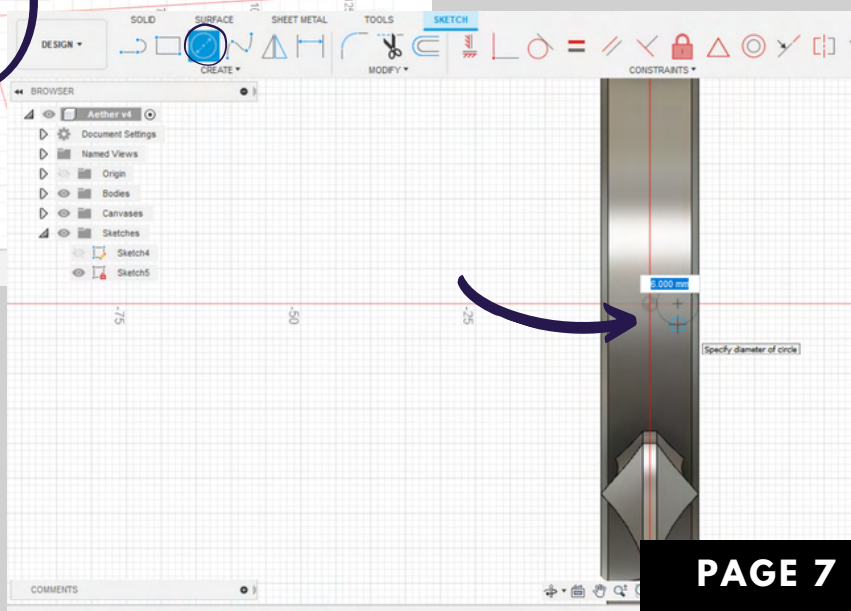




11 To make the holder a bit more useful I added a rod into the design to hold it in place. I started by starting a sketch on the Right plane.



Then I drew a center point circle toward the back of the model.



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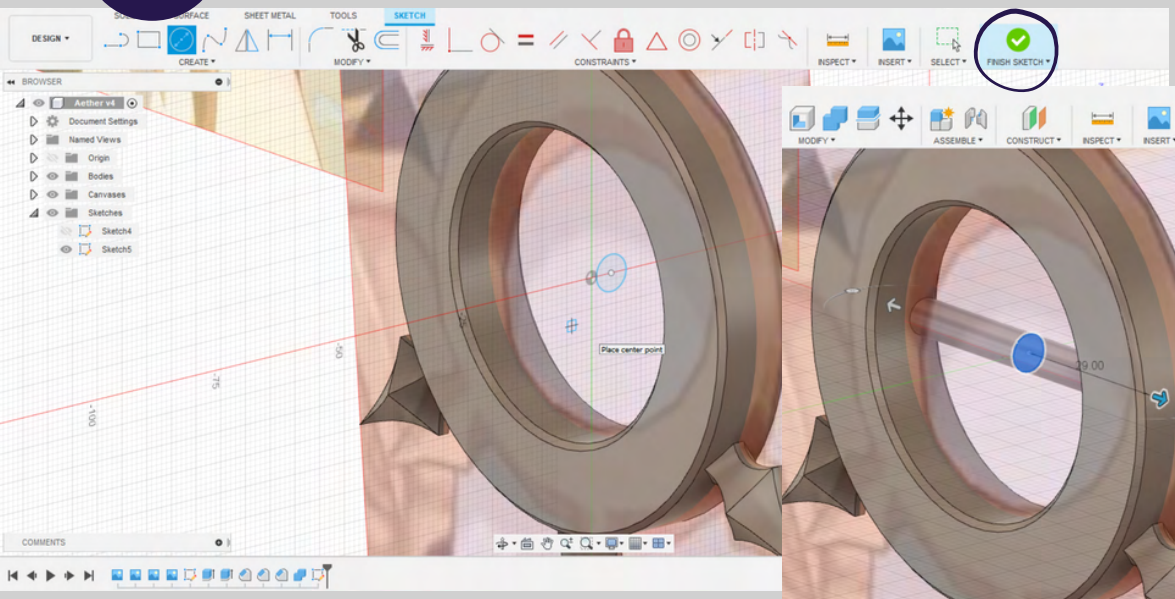
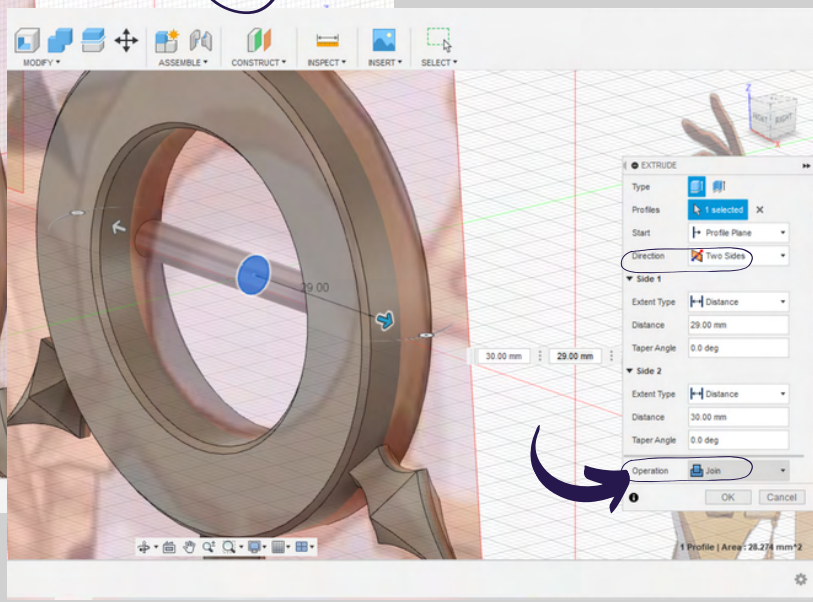
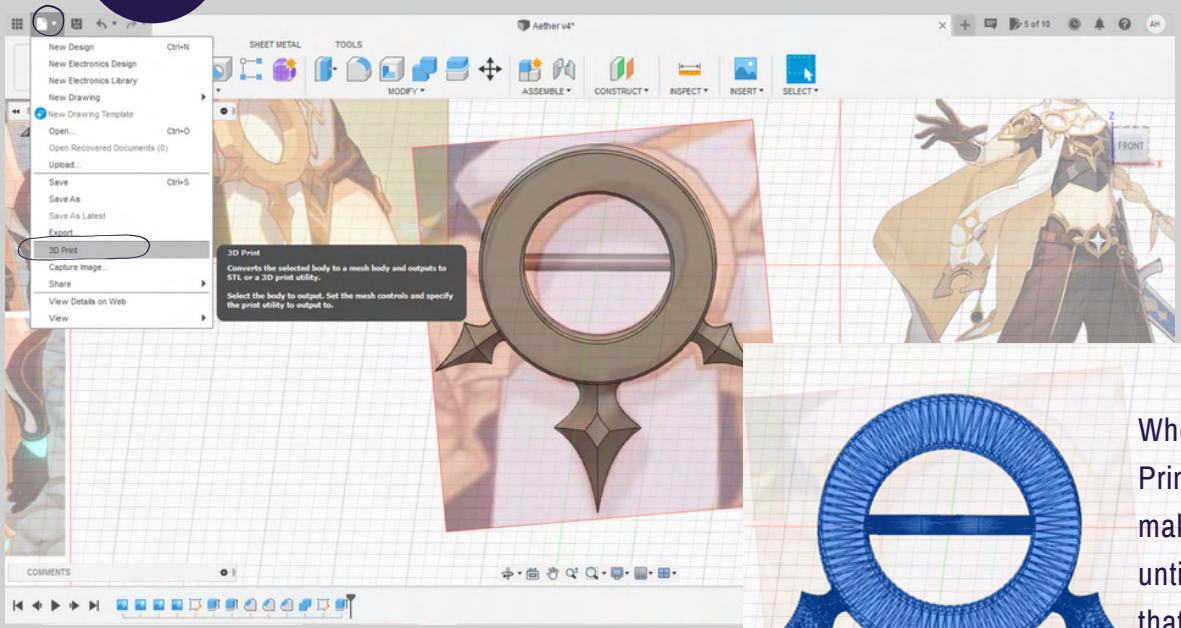
EXPORT IT

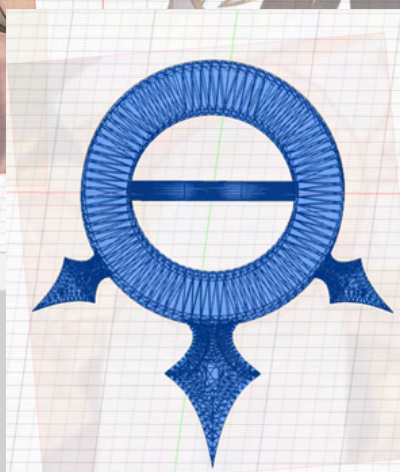
12 Finally I finish the sketch and extrude the rod in both directions. This time I want it to combine with the rest of the model so I make sure the *Operation* is Join.



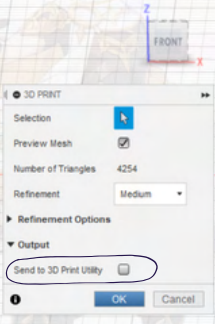


13 After that I head to the file menu, click 3D Print and export the model!





When the 3D Print menu opens make sure you untick the button that says '*Send to 3D Print Utility*' and then click the OK button.



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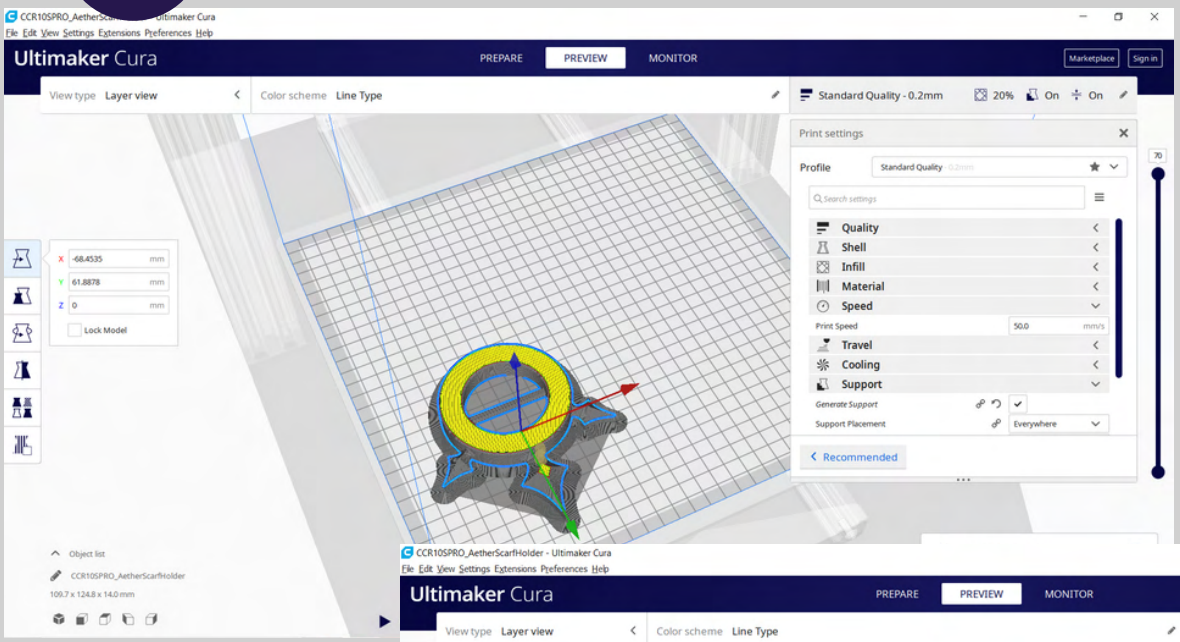
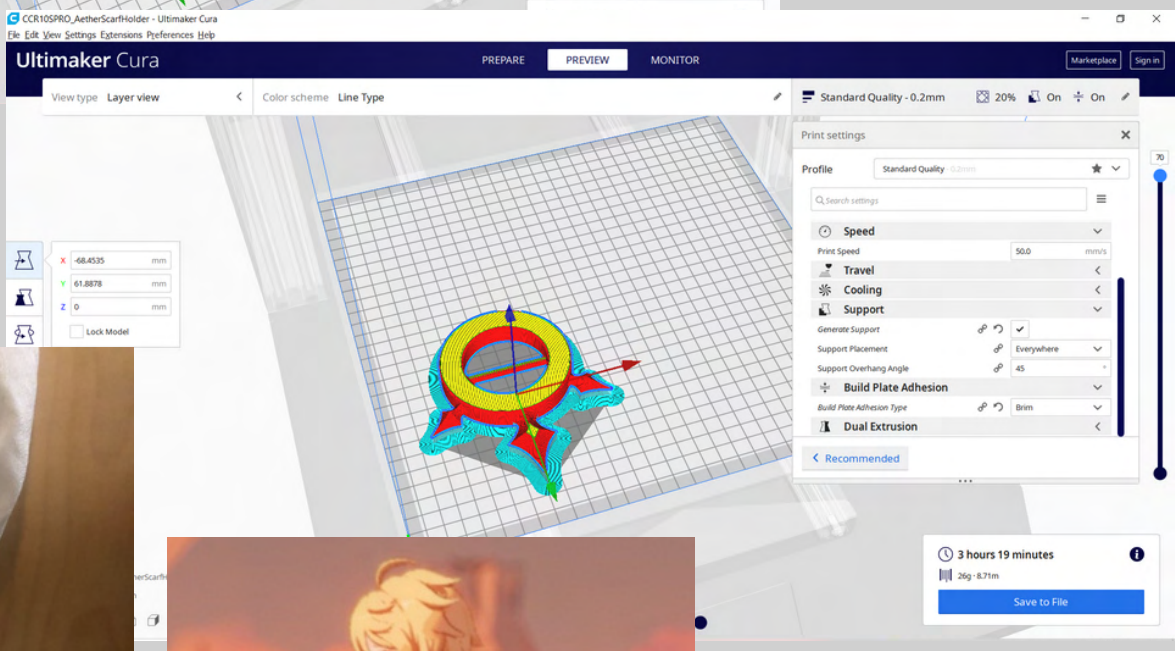
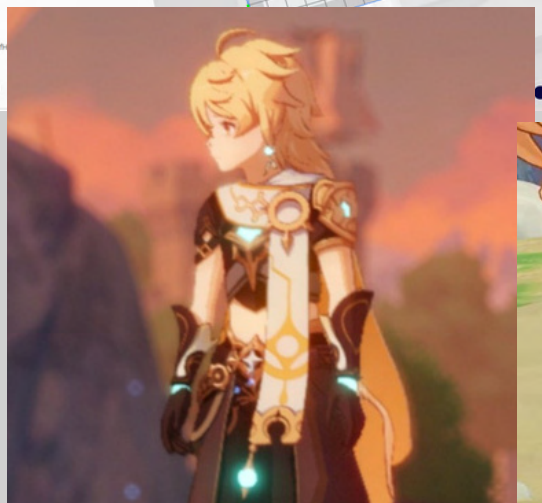
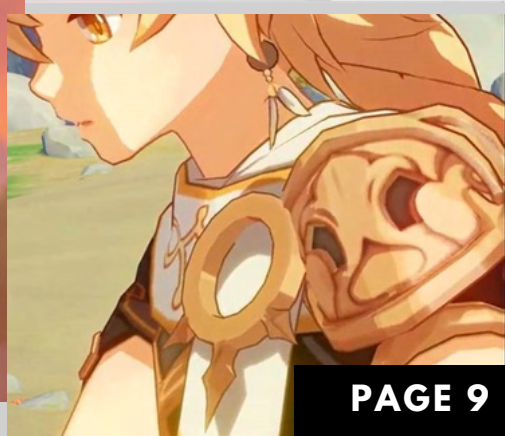
PRINT IT OFF

14 If you've got a 3D Printer at home then open up Cura and print away. If not you can take the print to The Learning Space to get it printed.









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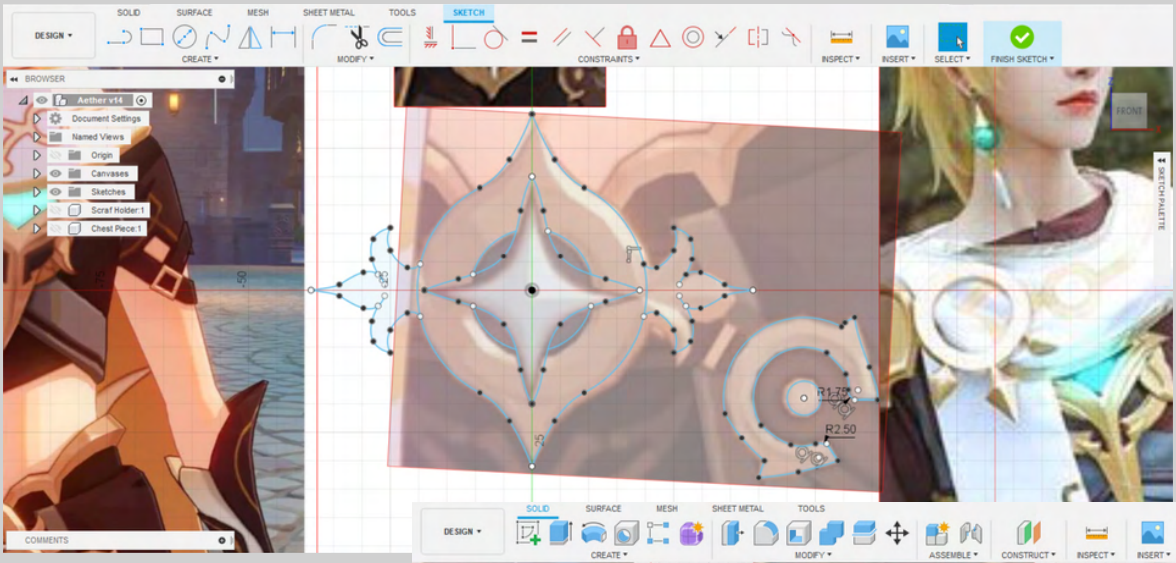

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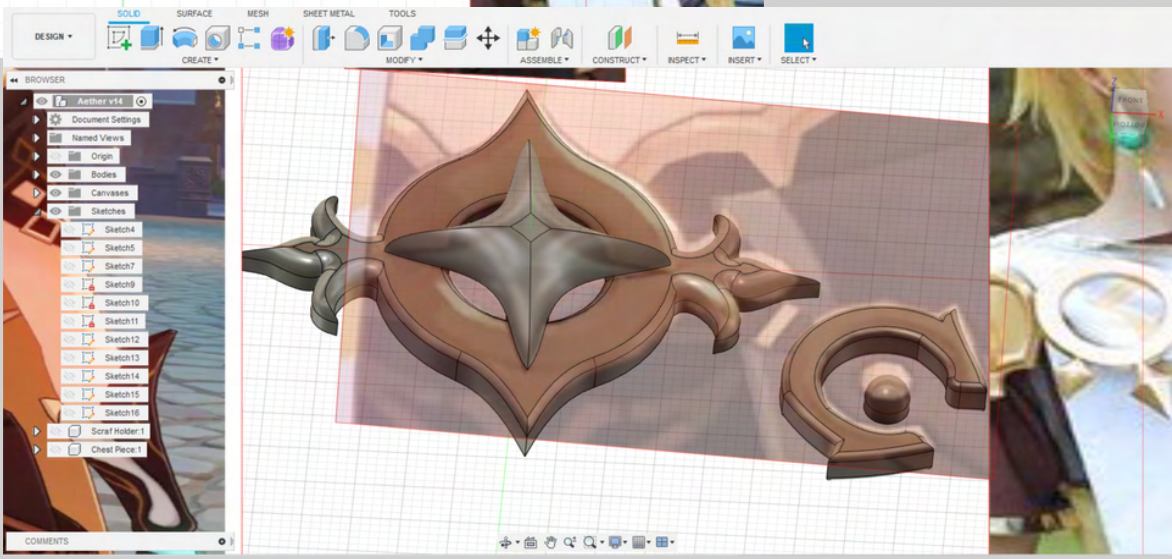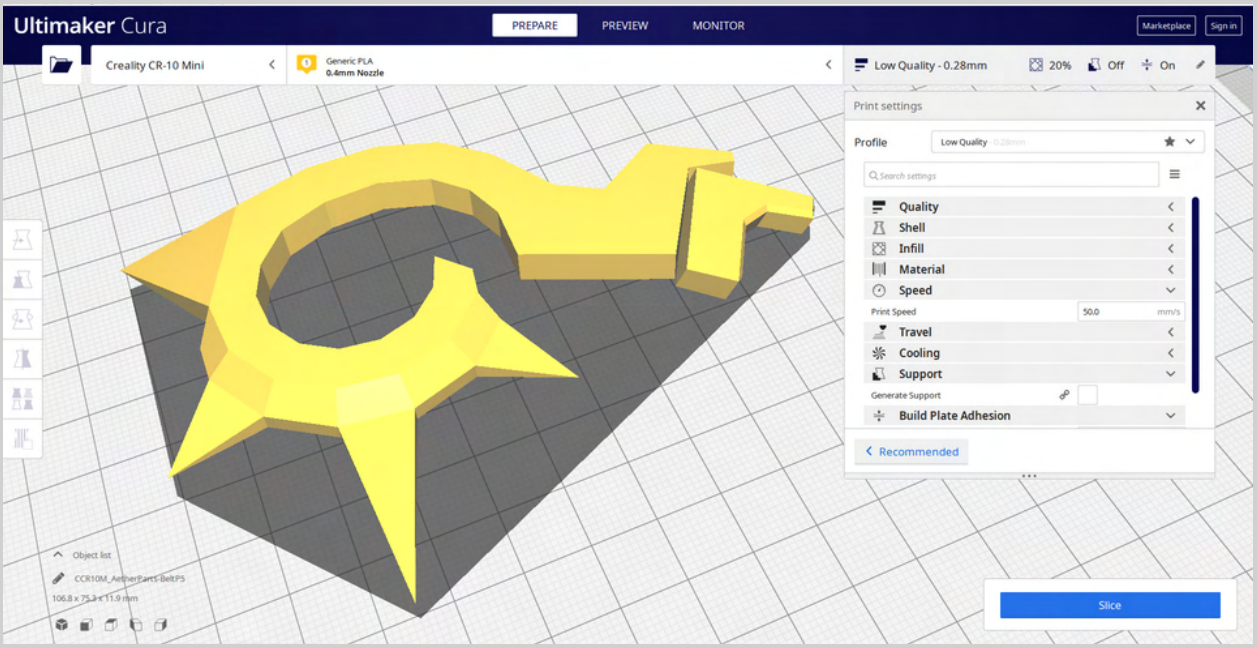
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