Lesson: Sketch the lamp shade profile

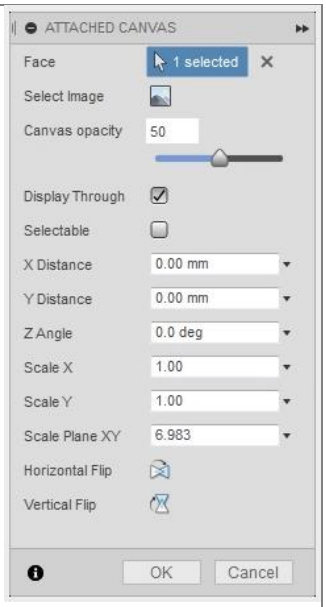
In this lesson, you will use various drawing tools to create the lamp shade profile.

Learning Objectives:

- Use Attached Canvas.
- Create a sketch spline.

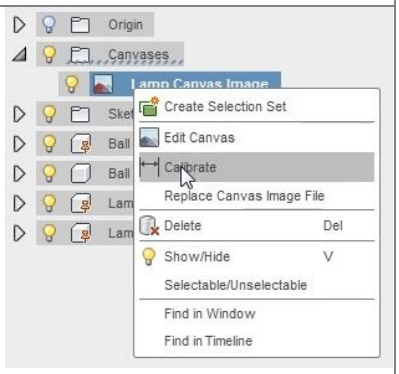
Step 1: Create the lamp shade profile.

1. Carry on with the file from the previous example. Select Insert> Attached Canvas to display the Attached Canvas properties panel. For Face, select the front plane. For Select Image, navigate to the supplied data set and choose the Lamp Canvas Image file.



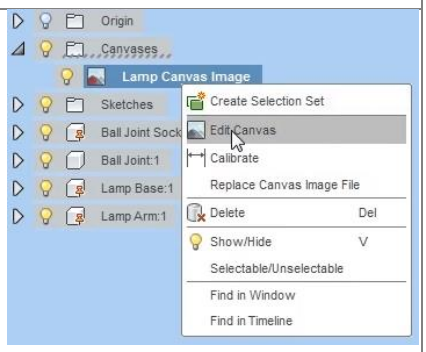
2. Scale the image so it is roughly the size and position of the lamp bodies. Investigate the different options in the properties panel then select OK.

3. Expand the Canvases folder in the Browser, right click on the Lamp Canvas Image, and choose Calibrate.

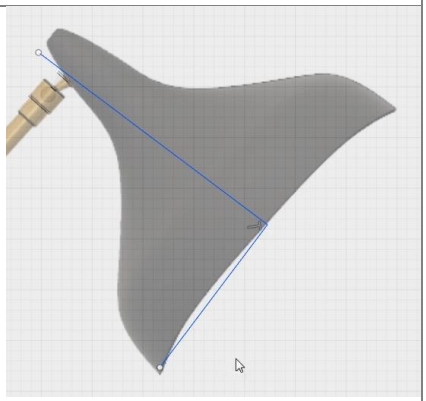


4. Select the two furthest points on the image's lamp base and add a dimension of 250mm.

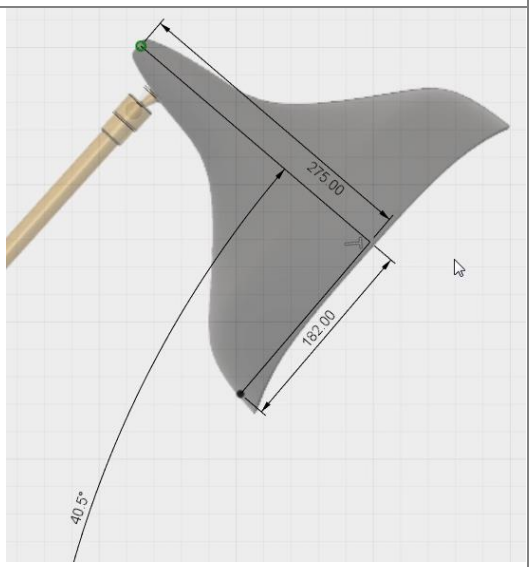
5. Right click on Lamp Canvas Image in the Browser and choose Edit Canvas. Use this to position the image so that the ball joints line up with each other. Click OK in the properties panel.



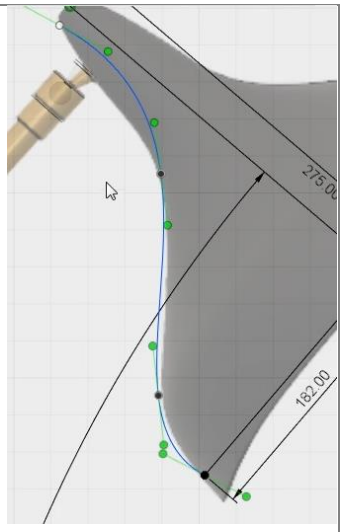
6. Select Create> Create Form then click on Sketch and select the front plane. Draw two perpendicualr lines to create the middle and front of the shade. After finessing the geometry into the correct position, use the Fix constraint to lock the geometry in place.



7. Add dimensions to fully define the geometry. The center line is 275mm long and 40.5 degrees from the lamp base. The front line is 182mm long.



8. Select Sketch> Spline to draw the lamp shade's outer spline. Click any time the curvature changes direction and use the direction and weight of the curvature. After placing the rough spline, finesse the spline into a closer match with the curvature of the underlying image.



9. Use the Line tool to close the shape by creating a line perpendicular to the center line. Press Stop Sketch in the properties panel. Save the file.