

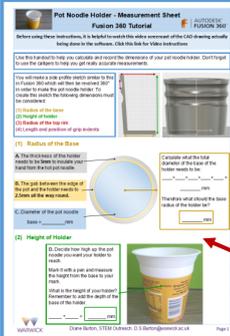


# Pot Noodle Holder Fusion 360 Tutorial

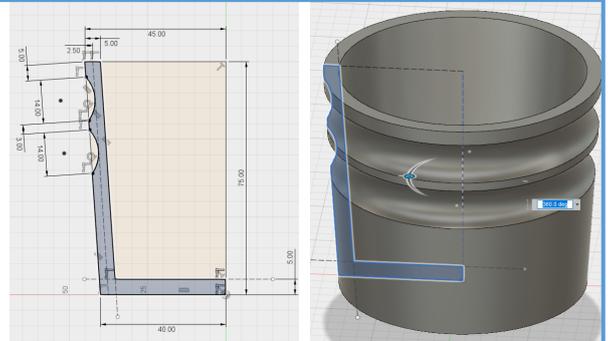


Before using these instructions, it is helpful to watch this video screencast of the CAD drawing actually being done in the software. [Click this link for Video instructions](#)

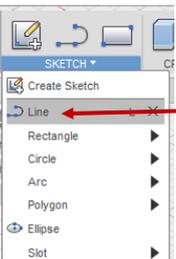
## Overview



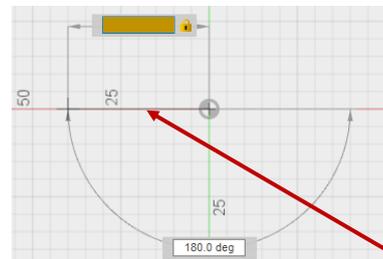
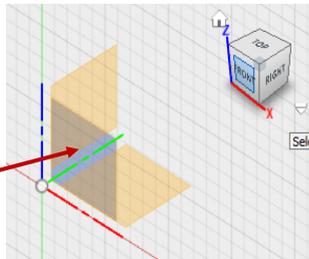
Creating a pot noodle holder from a side profile sketch and the revolve tool. Focusing on using dimensional constraints and geometrical constraint to define our sketch. You should complete the "Pot Noodle Holder - Measurement Sheet" before starting this written tutorial.



## Creating the Side Profile Sketch

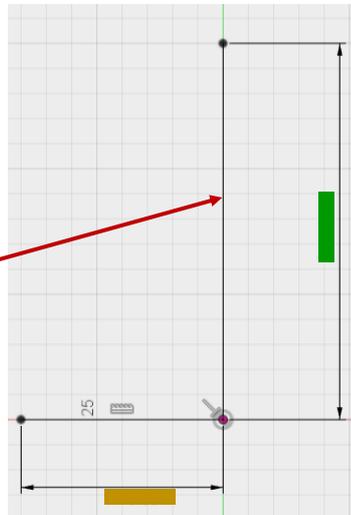


1) Go to "SKETCH" then select the "Line" tool. Click on the front plane to sketch in the xz-axis.

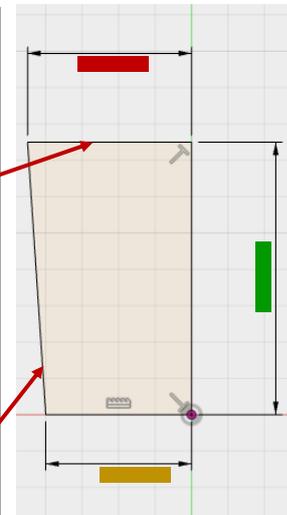


2) Starting from the centre point draw a horizontal line to the left. Use the **radius of the base** to set the length of the line. Press enter on your keyboard twice to lock this dimension.

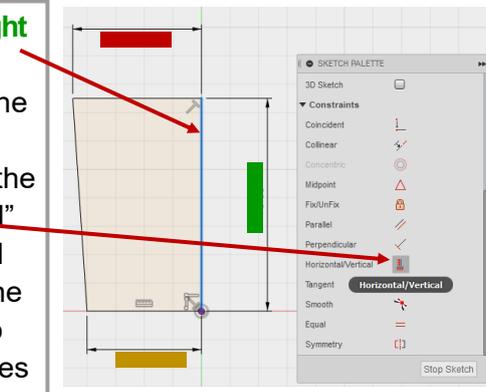
3) Press "L" on your keyboard to bring up the "Line" tool. Starting from the centre again draw a vertical line upward. Use the **height of holder** measurement to set the length of the line.



4) Use the line tool again. To draw a horizontal line starting from the top of your vertical line. Use the **radius of the top rim** measurement to set the length of the line. Finally draw a line connecting your two horizontal lines together.



5) Select your **height** line, then open the sketch palette on the right side of your screen and select the "Horizontal/Vertical" constraint. This will ensure that your line remains vertical no matter what changes you make to your sketch.



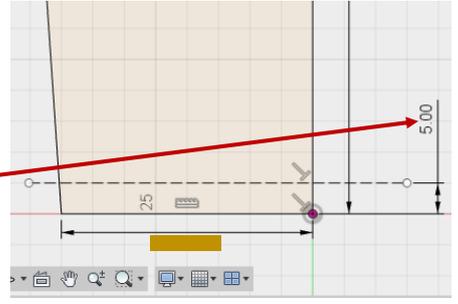
6) Use the line tool to sketch a horizontal line just above your **base** line. Select your line and press "X" on your keyboard. This will turn your line into a construction line.



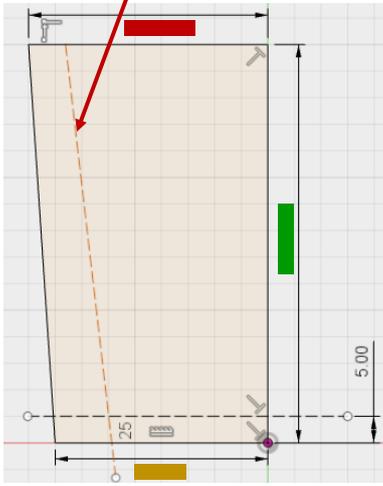
Note: Construction lines can be used to help you draw or define your sketches, but they don't count as real lines when you then use other functions such as extruding. This makes them very useful.



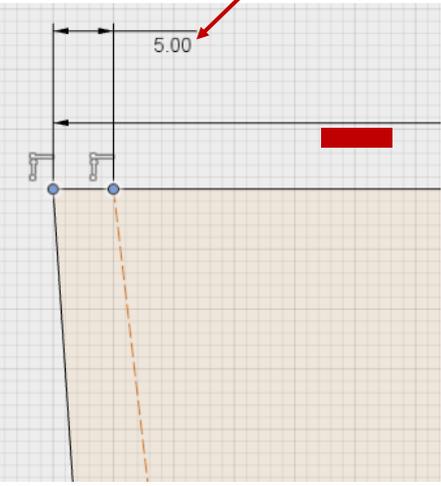
7) Press “D” to initiate the dimension tool. Then hold down the “ctrl” button and select both your **base** line and the construction line above it. Make the distance between them 5mm (as this is the thickness of the holder’s walls).



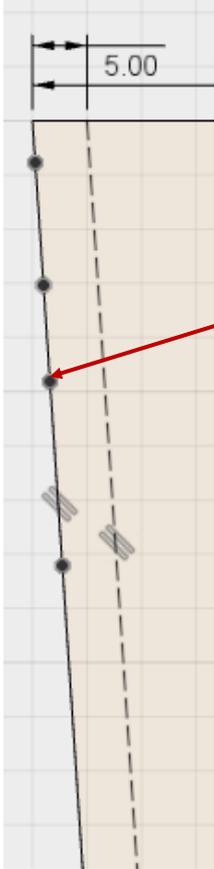
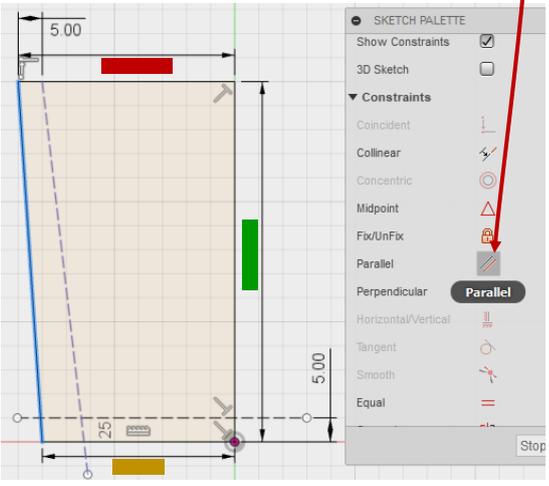
8) Draw another construction line starting from the **top rim** line down through your **base** line, try to make it roughly parallel with your angled connection line.



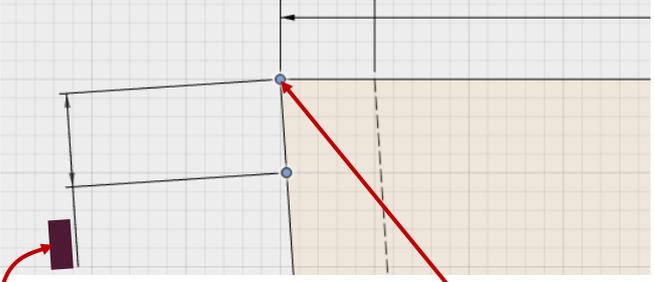
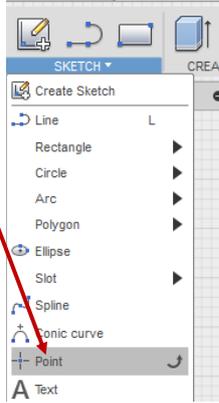
9) Use initiate the dimension tool hold “ctrl” while selecting the very top ends of your connection line and the construction line you just drew. Make the distance between these two points 5mm.



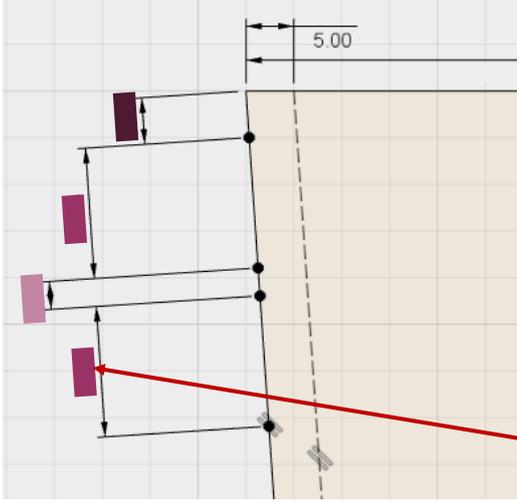
10) Go to “SKETCH PALETTE” and click on the “Parallel” constraint. Now select the two angled lines to make them completely parallel to each other. Press “esc” on your keyboard to exit the “parallel” tool.



11) Go to “SKETCH” and select the “Point” tool. Then place 4 points along the angled line of your sketch. Insure the points are well spaced out from each other.

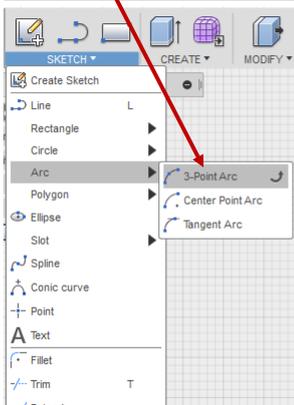


12) Initiate the dimension tool. Select the top left corner of your sketch and the first points. Drag the dimension away such that it is perpendicular to the angled line the points sit on. Use the **distance from rim to first indent** measurement to set the distance between these two points.

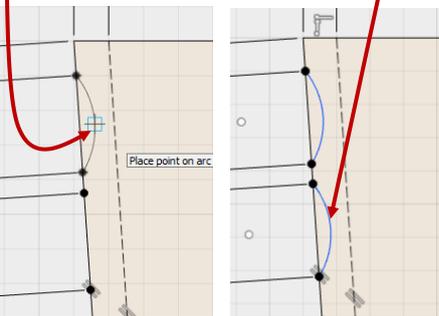


13) Now dimension the other points using the dimension tool. The distance between the 1st and 2nd points is your **length of indents** measurement. The distance between the 2nd and 3rd points is your **distance between indents** measurement. Finally the distance between the 3rd and 4rd points is again your **length of indents** measurement.

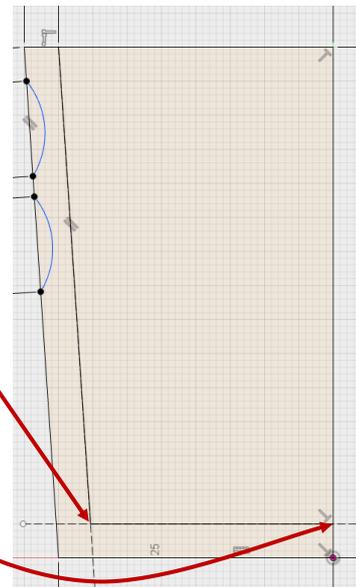
14) Go to "SKETCH" then "Arc" and select the "3-Point Arc" tool.



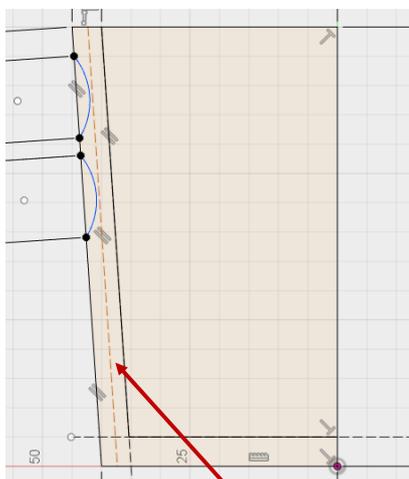
15) Click on the 1st point, then click on the 2nd point. Pull the arc about half way towards the construction line. Draw another 3-point arc between the 3rd and 4th points.



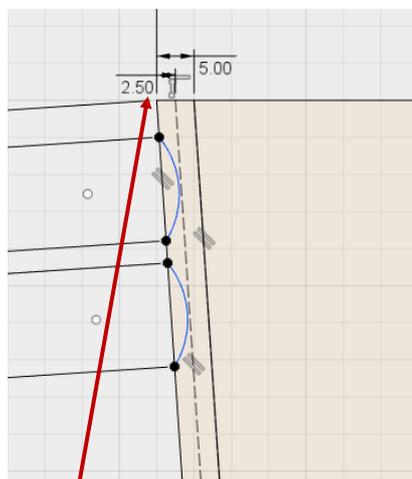
16) Press "L" on your keyboard to initiate the "Line" tool. Trace the angled construction line up until the point where the two construction lines intercept then trace the horizontal construction line up until the edge of your sketch.



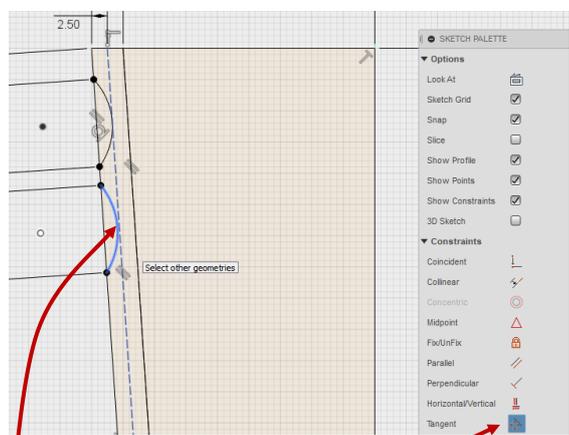
Note: Notice that the lines on the arc are blue, where as all the other lines are black. This is because a black line means it has been fully defined whereas a blue line means it has not.



17) Sketch a construction line between the two angled line.

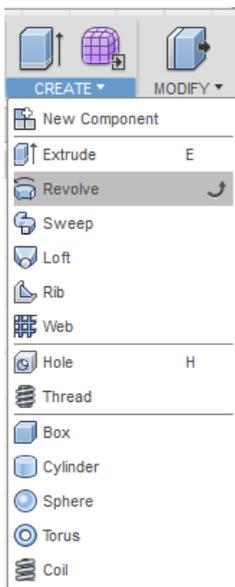


18) Set the distance to be 2.5mm away from one of the angled lines.

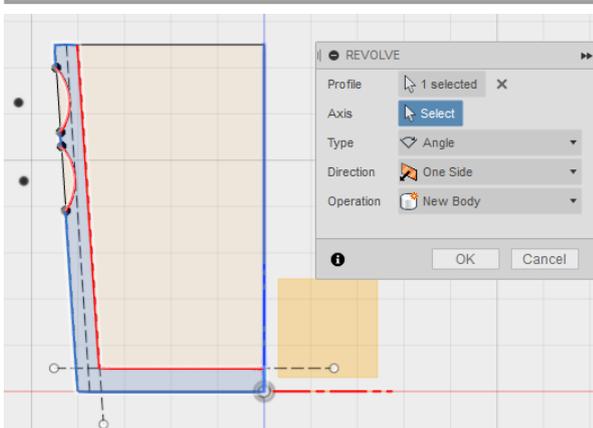


19) Go to the "SKETCH PALETTE" and select the "Tangent" constraint. Click on the construction line then select the top arc. Repeat this for the bottom arc.

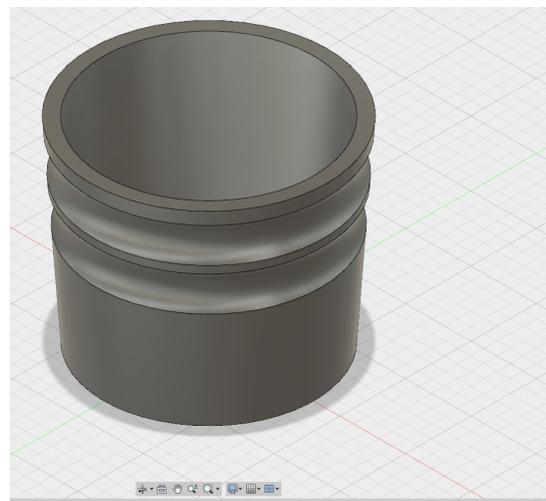
## Revolving the Sketch



20) Go to "CREATE" then select "Revolve".



21) As the 'Profile' select the L-shaped section of your sketch. As the 'Axis' select your height line. Press "OK".



You have finished this tutorial and should now have a pot noodle holder that looks something like this!