



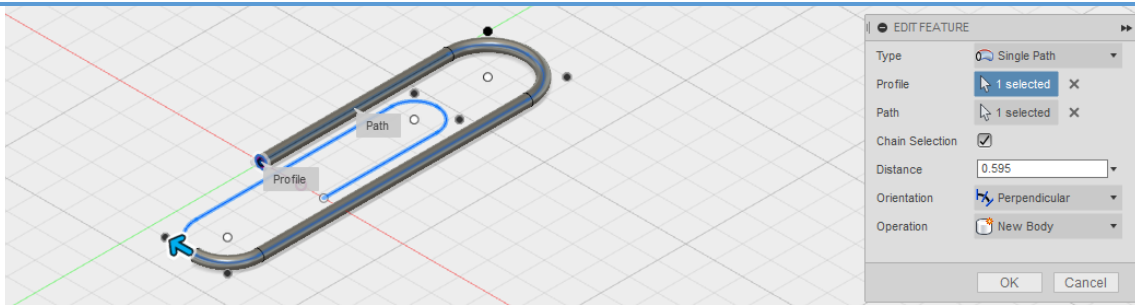
Paper Clip Fusion 360 Tutorial



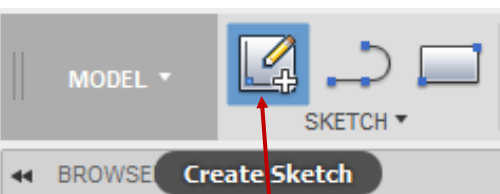
Before using these instructions, it is helpful to watch this video screencast of the CAD drawing actually being done in the software. [Click this link for Video instructions](#)

Overview

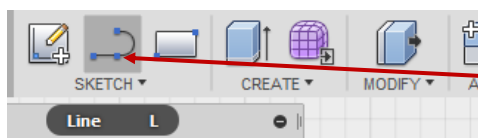
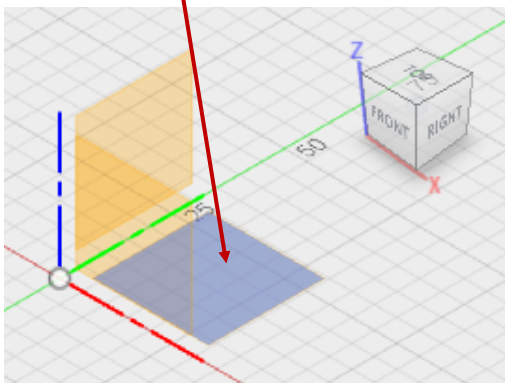
Using the Sweep tool to create a paper clip from a circle profile and a sketched path.



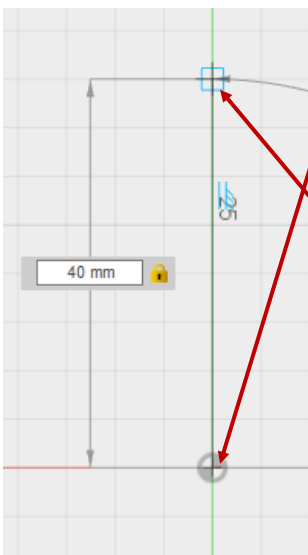
Sketching the Path



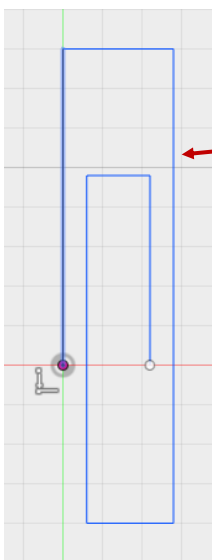
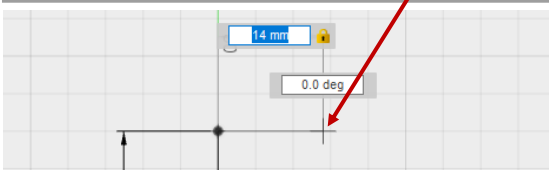
1) Select "CREATE SKETCH" then select the top plane.



2) Select the "Line" tool in the "SKETCH" menu. Or press "L" on your keyboard.



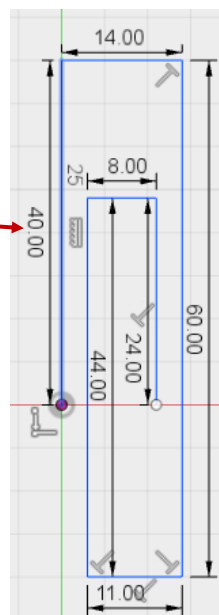
3) Click on the centre point then drag your mouse up. Type "40" to make your line 40mm long, then press the "Tab" button on your keyboard to lock the dimension in place. Left click once to position the line. Now drag the mouse to the right to draw another line. Make this Line 14mm in length. Press "Tab" to lock it. Then left click to position the line.



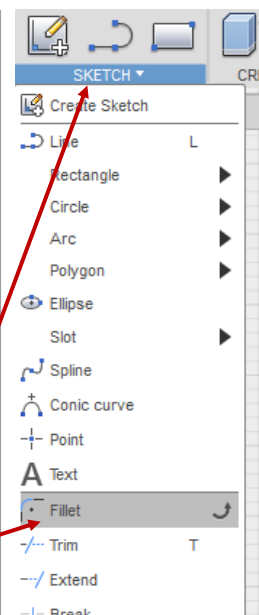
4) Use the technique described in step 3 to draw lines such that your sketch looks like this.

The lengths of each line is shown on this image. Type in the dimensions of your lines as you sketch each one. Do this by typing the number, pressing "Tab", and left clicking to position your line. Repeat this for each line.

Note: If you loose your line tool, simple press "L" on your keyboard to bring it back and start from where you left off.



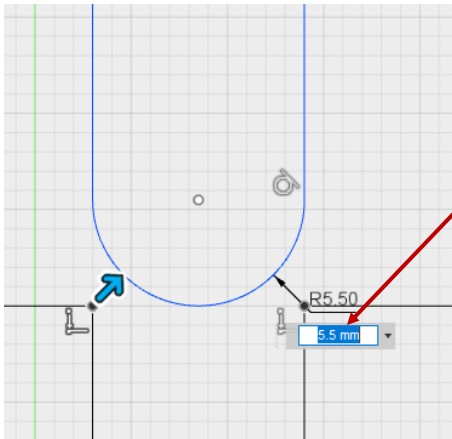
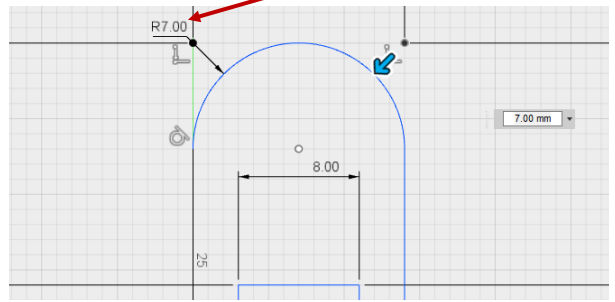
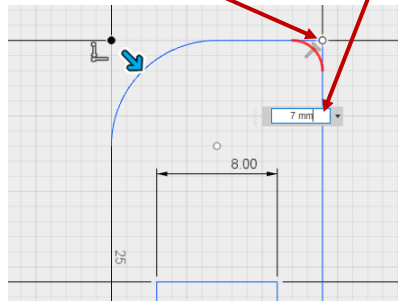
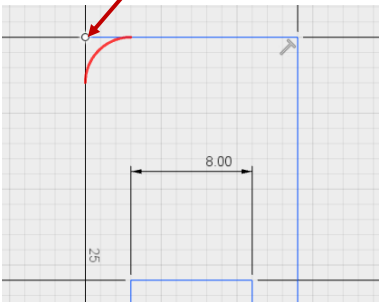
5) Press "esc" on your keyboard to exit your line tool once you finish sketching. Go to the "SKETCH" menu then select the Fillet tool.



6) Select the top left corner of your paper clip.

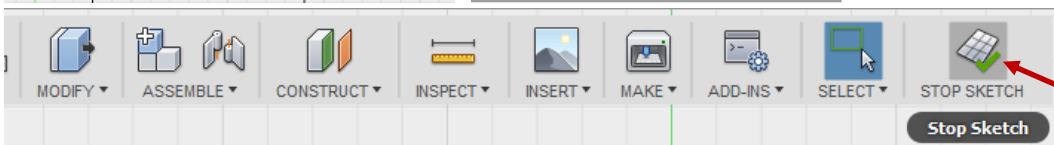
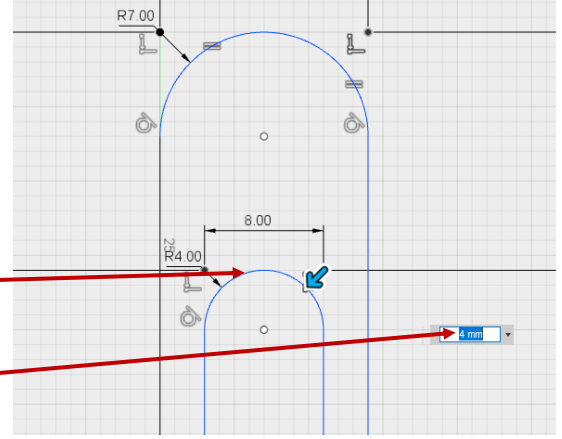
7) Type 7 into the dimensions box. Then select the top right hand corner

8) Press "Enter" on your keyboard. This will make both fillets have a 7mm radius.



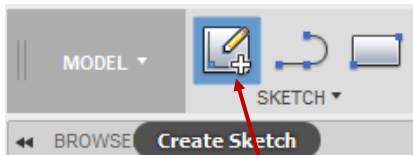
9) Repeat steps 6,7 and 8 to fillet the bottom corners of your paper clip. Make the radius of both fillets 5.5mm in radius.

Then repeat again to fillet the corners of the 8mm line on your sketch. Make the radius of both fillets 4mm in radius.

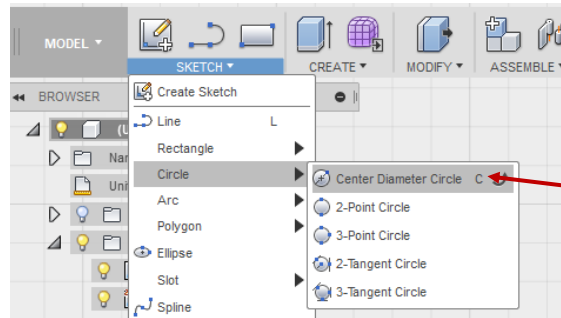


10) Select "STOP SKETCH" to stop sketching.

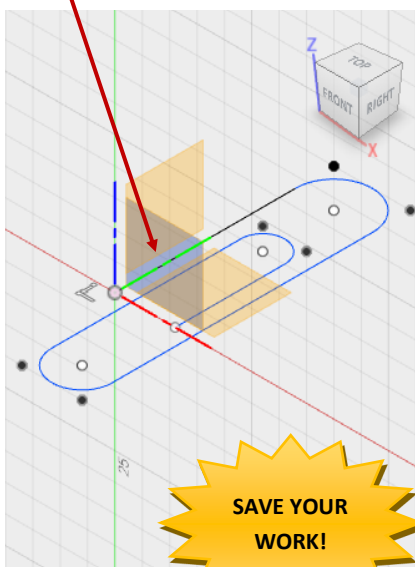
Sketching the Profile



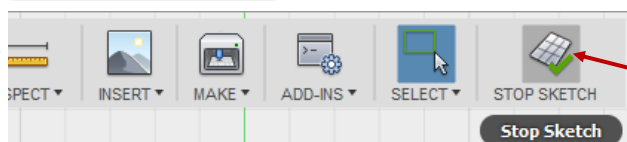
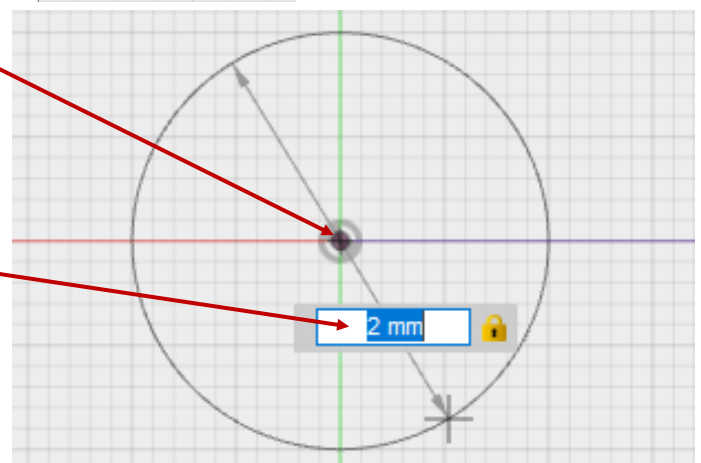
11) Select "CREATE SKETCH", this time select the front plane.



12) Go to "SKETCH" menu then hover your mouse over the "Circle" option, then select the "Centre Diameter Circle". Or alternatively press "C" on your keyboard.



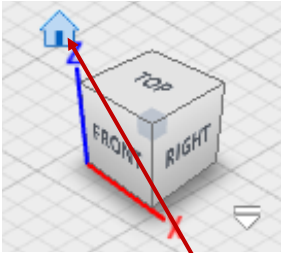
13) Click on the centre point then drag your mouse away to draw the circle. Type 2mm into the dimensions box. Press "Tab" to lock the dimension then click "Enter".



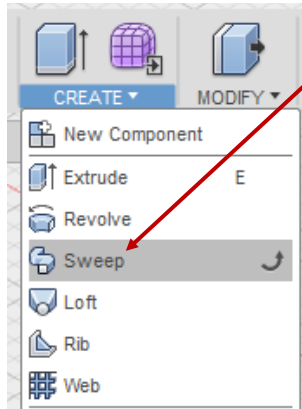
14) Select "STOP SKETCH" to stop sketching.



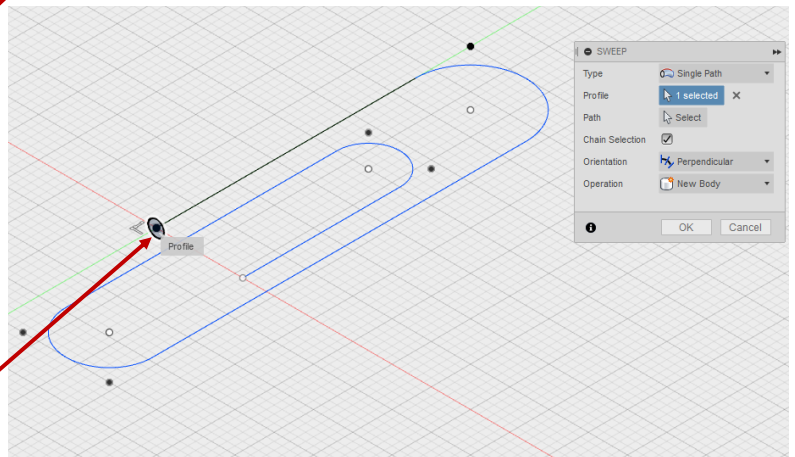
Using Sweep Tool



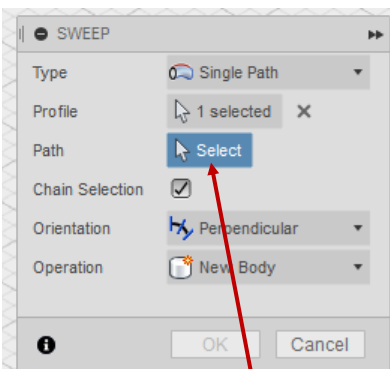
15) Click the home button on the view cube.



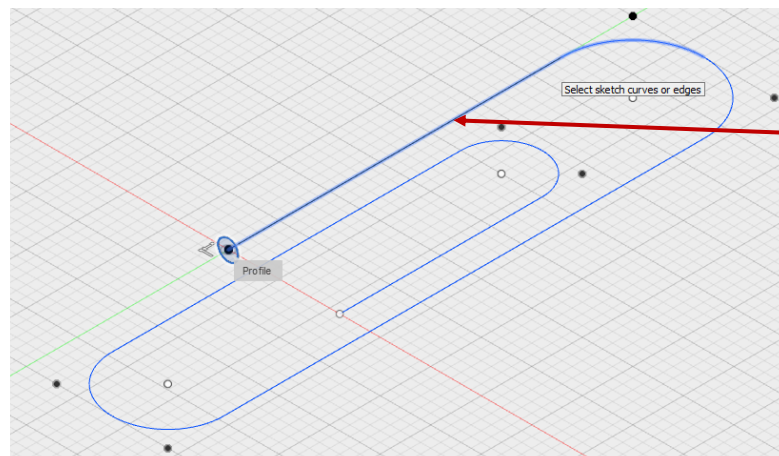
16) Go to "CREATE" menu then select the "Sweep" tool.



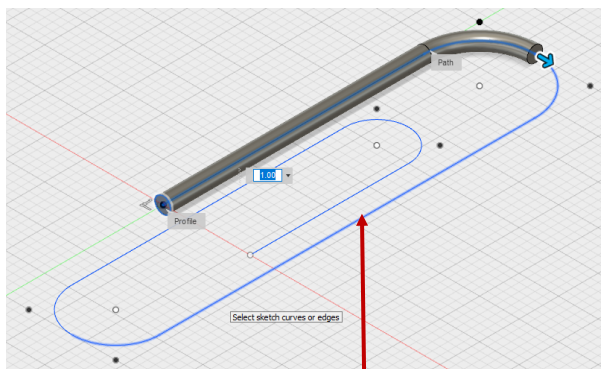
17) Select the circle sketch as the profile for the sweep.



18) Select the "Path" option.

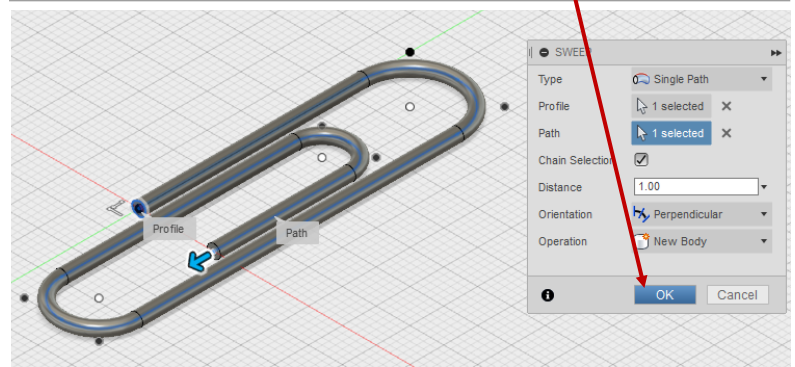


19) Start by selecting the line that is attached to the circle to initiate the path around your paper clip sketch.

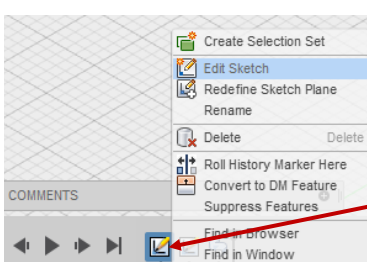


20) Then select the next section of line which follows on from the last line you selected.

21) Continue to select the next line section in your sketch until you have selected all of your paper clip sketch and it looks like the image below. Then Click "OK".



You have finished the paper clip tutorial. Now if you want, you can go back and edit your sketch to add your own design features to your paper clip. For Example you could sketch a hat or a flower on top.



To edit your sketch go to the timeline at the bottom of the page. Right click on the first sketch then select "Edit Sketch".

