



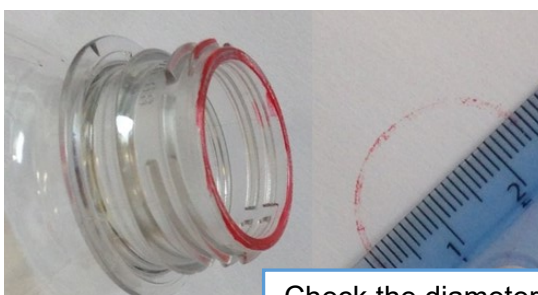
Straw bung Fusion 360



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

Taking measurements before starting your CAD drawing

The straw bung consists of 2 cylinders with an angled hole cut through them for the straw. You need to measure the outside dimensions of your bottle top and add on 2 or 3mm to get the diameter of the top cylinder which will sit on top of the bottle. Then measure the inside edge diameter and reduce by 2 or 3mm to give the measurement of the 2nd cylinder which fits inside the bottle.



To help measure the outer and inner bottle rim, you could use a marker pen to draw and imprint the bottle top. Here the outer rim diameter measured 24mm, 2mm was added to make the top cylinder 26mm. The inner rim diameter measured 21mm, 2mm was deducted to make the bottom cylinder 19mm so it has clearance to move in and out of the bottle top.



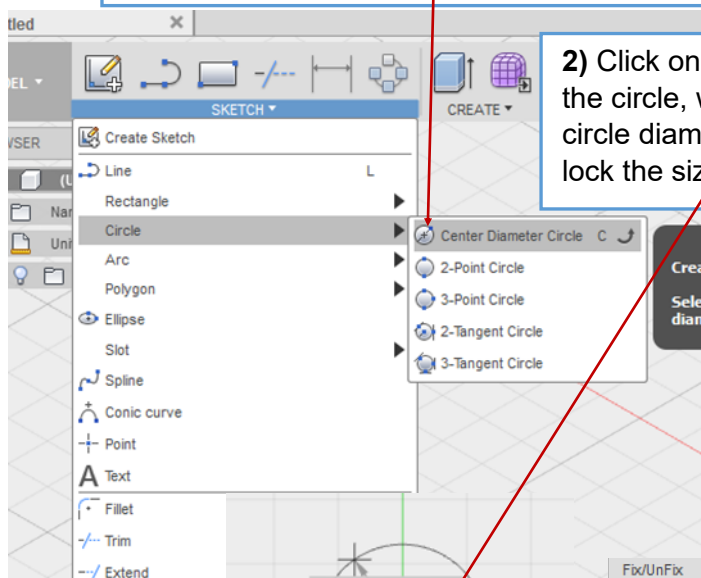
Check the diameter of your straw. Standard supermarket straws are 5mm diameter and around 220mm long (like the blue striped one). Extra long straws are 6mm diameter and around 280mm long (like the turquoise one).

Make the straw hole about 0.2mm bigger than the straw diameter so the hole has adequate room to push the straw in and out, whilst still gripping the straw enough to keep it in place. So, 5.2mm for the standard straw and 6.2mm for the long straw.

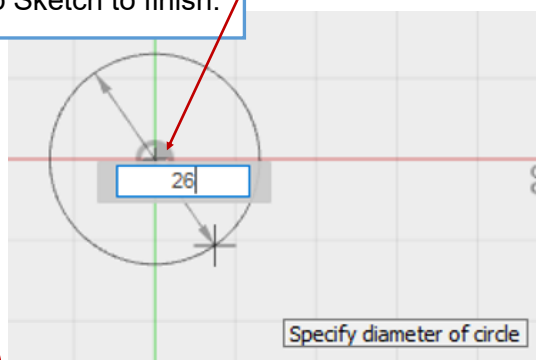
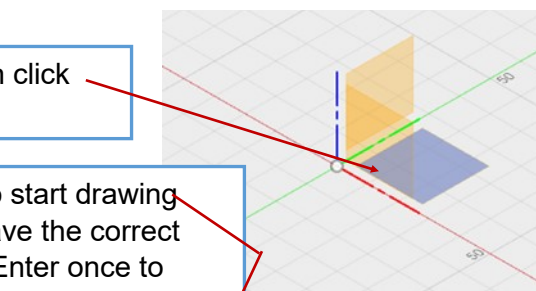
Note, tolerances vary on different 3D printers, so you may need to add a different amount on to your straw diameter for your printer to produce the correct hole size.

CAD drawing for the Straw Bung

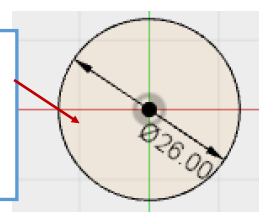
1) Select Sketch, Circle, Center Diameter Circle and then click on the XY plane to select it.

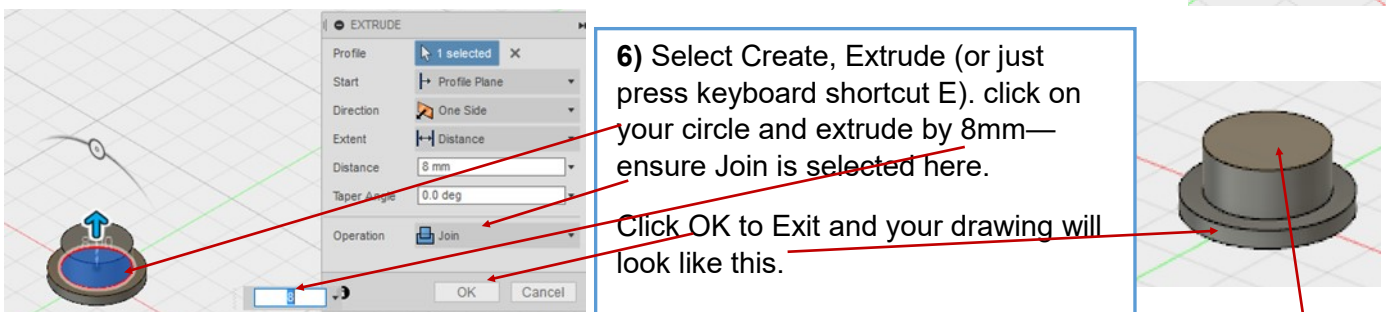
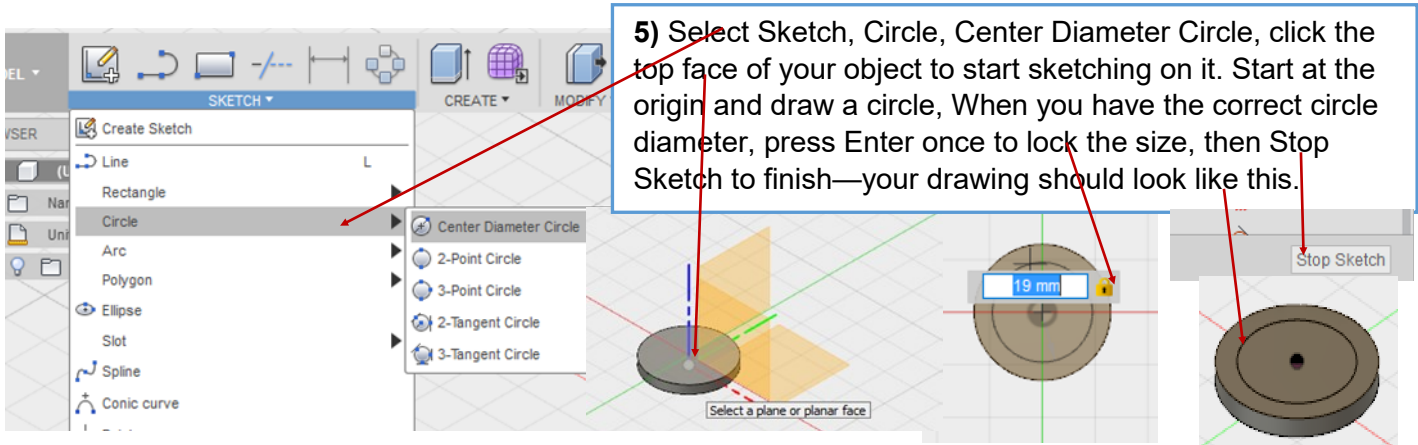
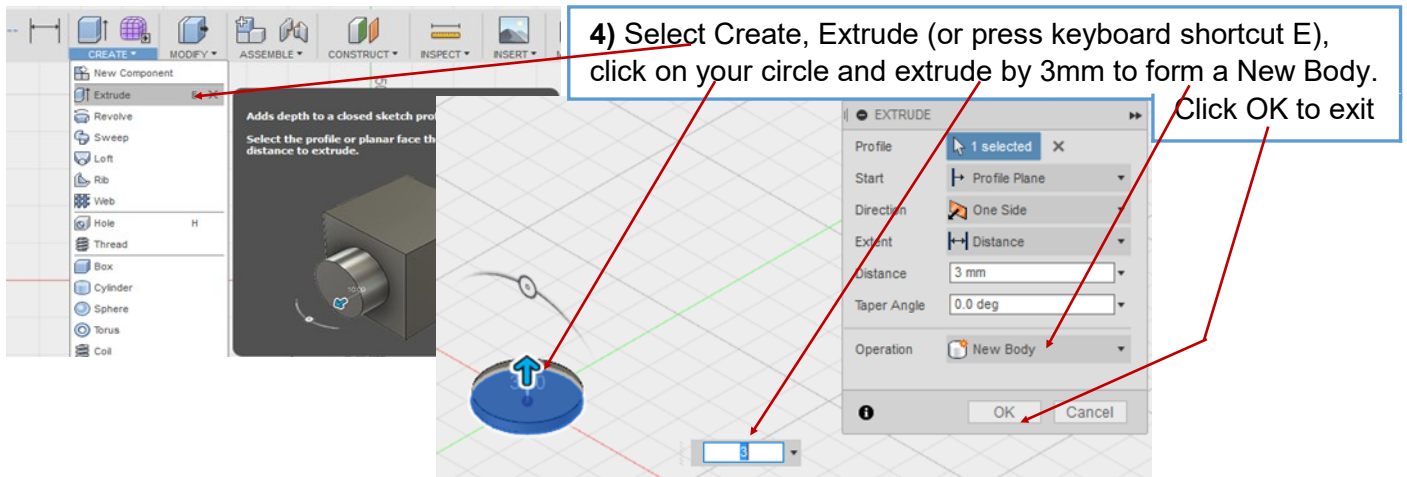


2) Click on the origin to start drawing the circle, when you have the correct circle diameter, press Enter once to lock the size, then Stop Sketch to finish.

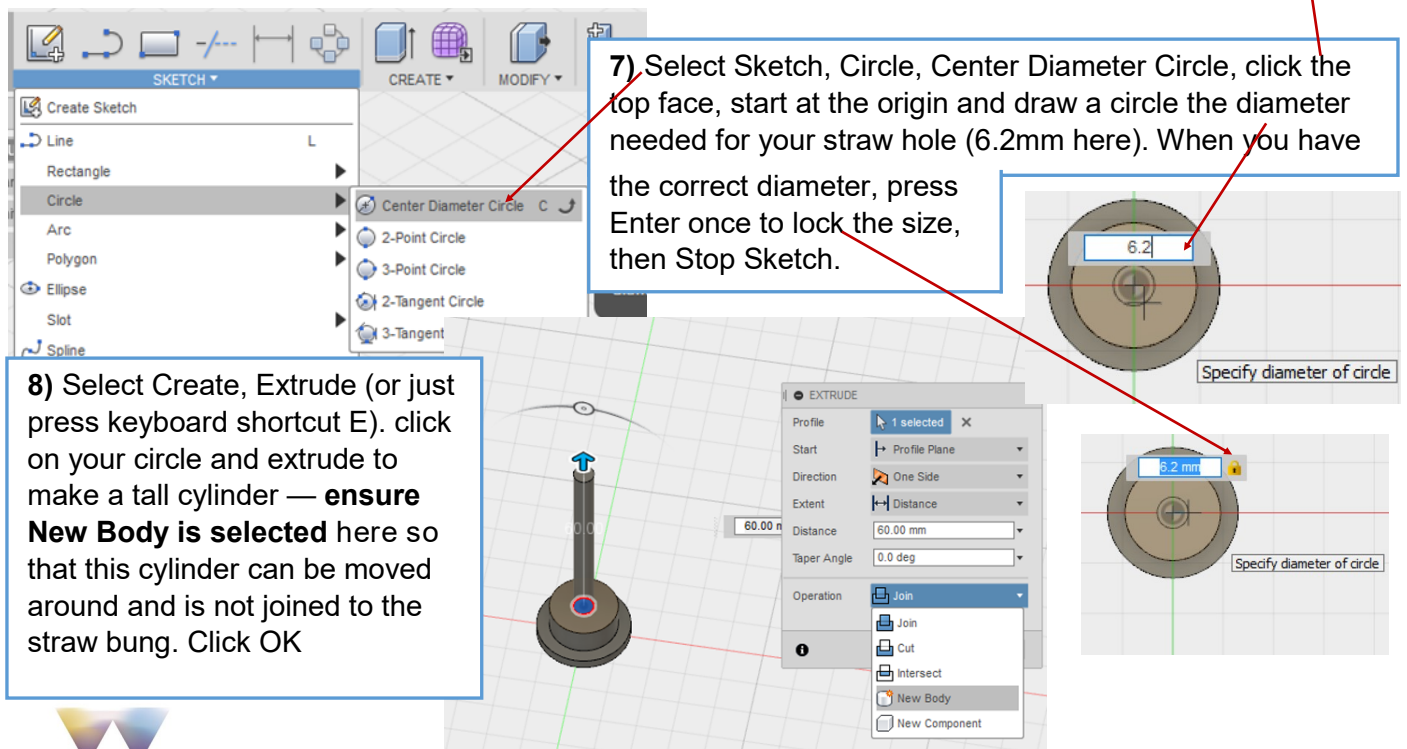


3) Your drawing should look like this.





Making the hole in the Straw Bung



Moving the cylinder to the correct position to cut the hole for the straw

