

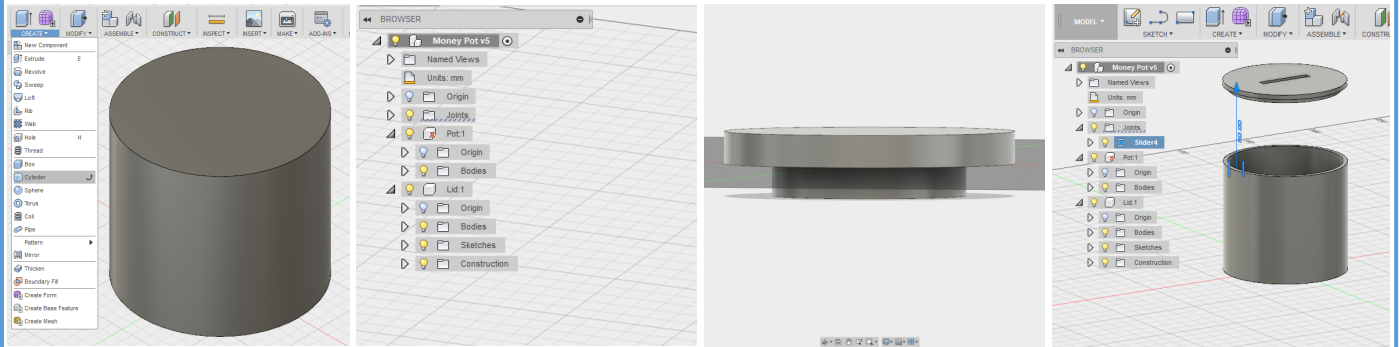
Money Pot Fusion 360 Tutorial



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 a cylinder primitive to create a pot.
- Creating 2 separate components within a single document.
- Extruding above and below a plane to create a lid.
- Using joints to connect and restrict movement of components.



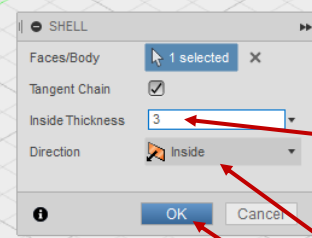
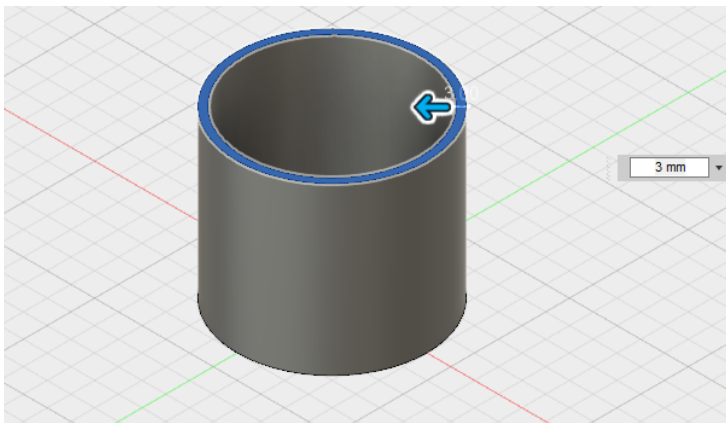
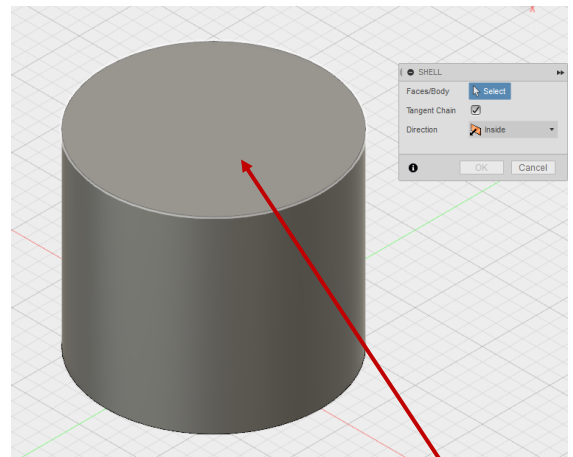
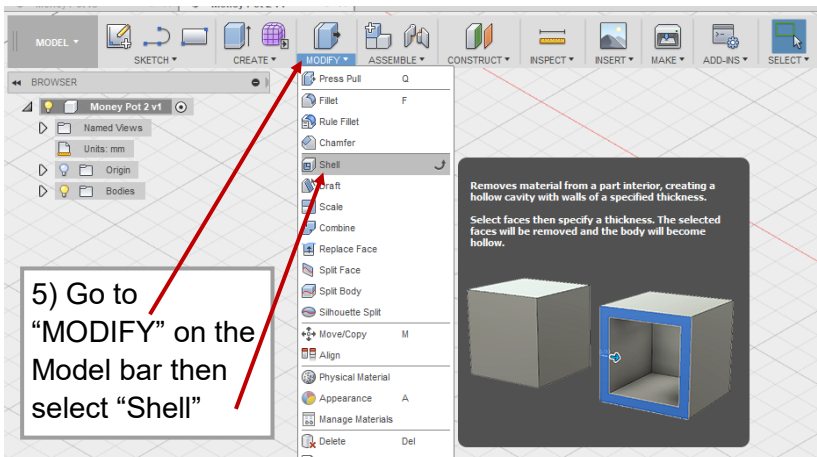
Creating Pot

1) Go to "CREATE" on the modelling bar and then select "Cylinder"

2) Click on the "TOP" plane of the view cube (top right of your screen). Then select the square in the centre of the screen.

3) Click once on the centre point then drag your mouse away. Type "80" then press enter twice on your keyboard. This makes the diameter of your circle 80mm

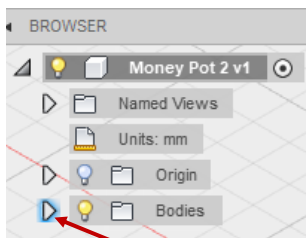
4) Type "70" into the height dimension either on the cylinder or in the information box. Then click "OK" or press enter to make the height of your cylinder 70mm.



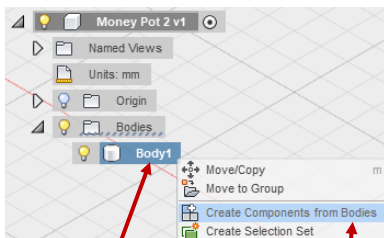
6) Select the top face of your cylinder. Make the wall thickness 3mm wide by typing "3" into the "Inside Thickness" box. Insure the direction is "Inside". Click "OK".



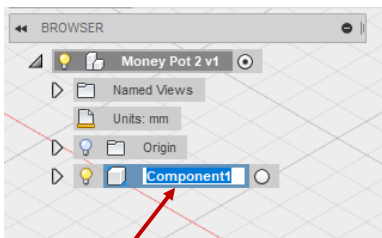
Creating Components



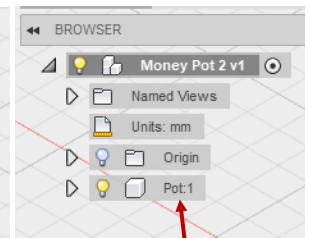
7) Click triangular tab next to the "Bodies" folder in the browser menu.



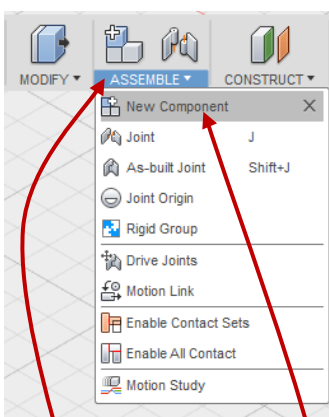
8) Right click on "Body1" then select "Create Components from Bodies".



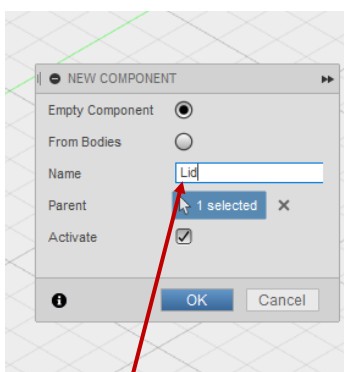
9) Rename this component by clicking once on "Component1" then double clicking over the text.



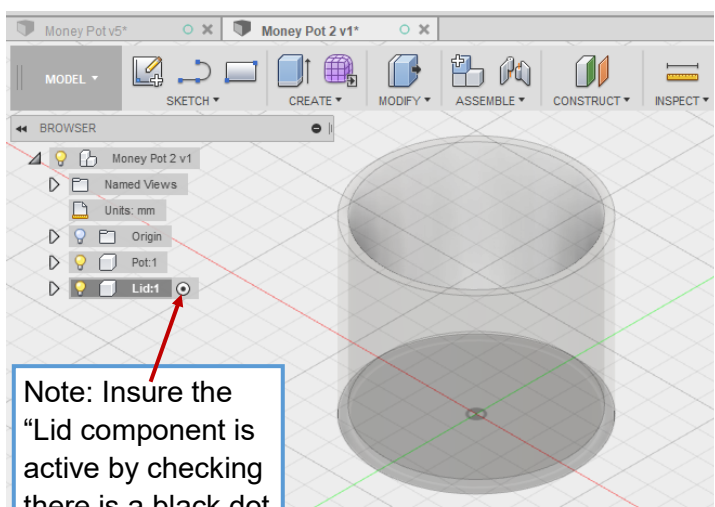
10) Type "Pot" then press enter on your keyboard.



11) Create a new component by going to "ASSEMBLE" then "New Component".



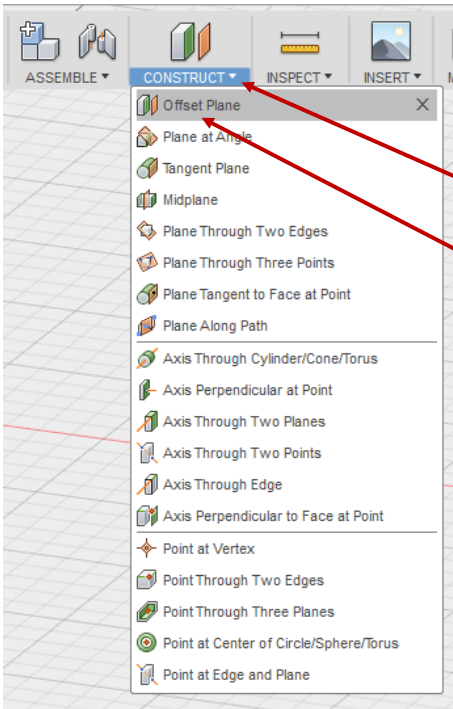
12) In the information box on the right of your screen type "Lid" into the "Name" box. Then click "OK".



Note: Insure the "Lid" component is active by checking there is a black dot next to "Lid:1" in the browser.

Your screen should now look like this.

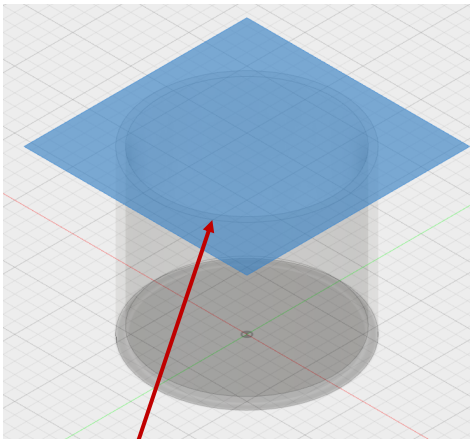
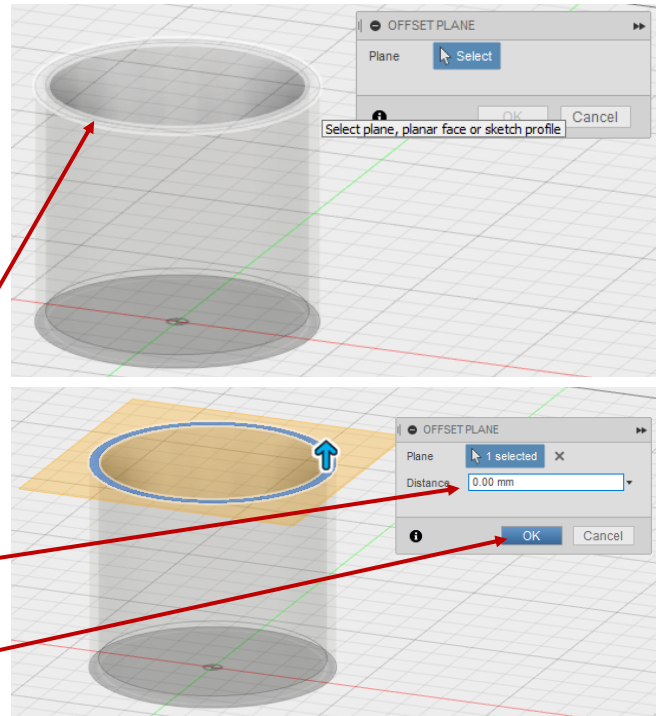
Creating Lid



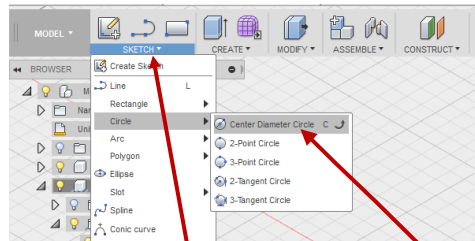
13) Create a sketching plane on top of your pot by going to "CONSTRUCT" then selecting "Offset Plane".

14) Click on the top surface of your pot.

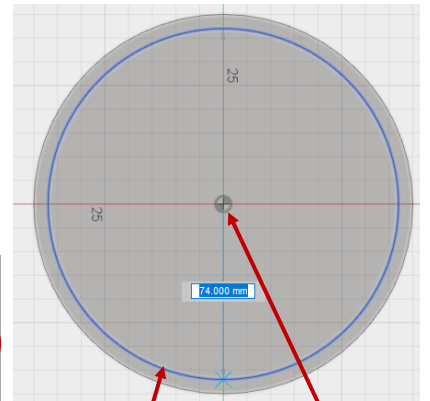
15) Type "0" in the "Distance" option in the information box. Click "OK".



16) Select the plane that you just made.



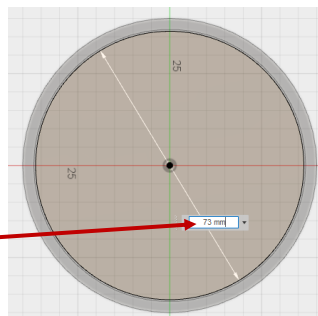
17) Create a central based circle by either:
- Going to "SKETCH" in the model bar, clicking on "Circle" then selecting "Centre Diameter Circle".
OR
- Pressing "C" on your keyboard.



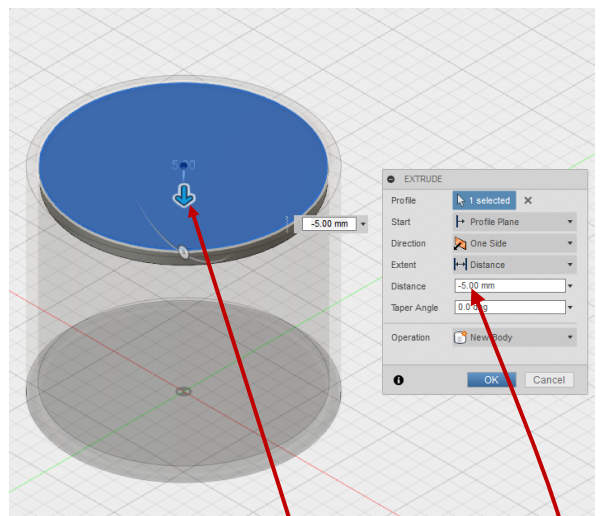
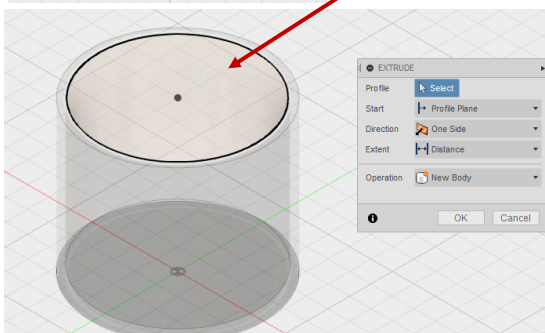
18) Click on the centre point then drag the circle to the inner edge of your pot.

19) Minus 1 from the diameter of the inner edge of your pot and type this into the dimensions box. Press Enter.

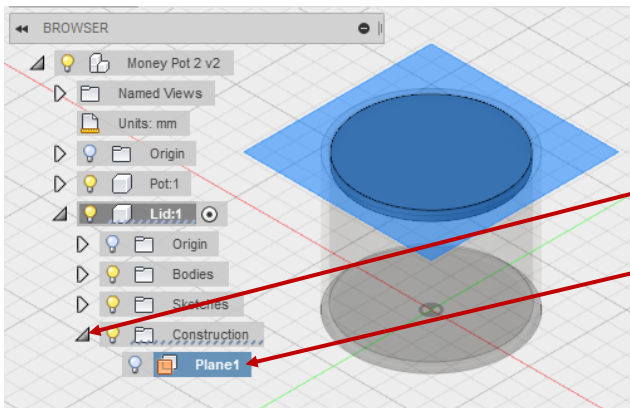
E.g. My pot has an inner diameter of 74mm so I will type 73mm into the dimensions box.



20) Press "E" on your keyboard to Extrude your circle. Then select your circle.

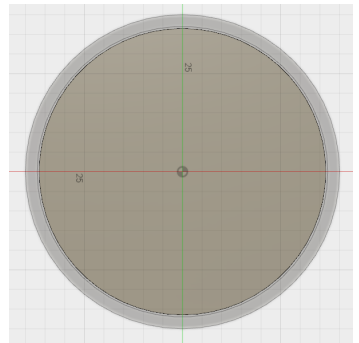


21) Either grab the arrow and pull it down by 5mm or type "-5" into the distance option in the information box. Press Enter.

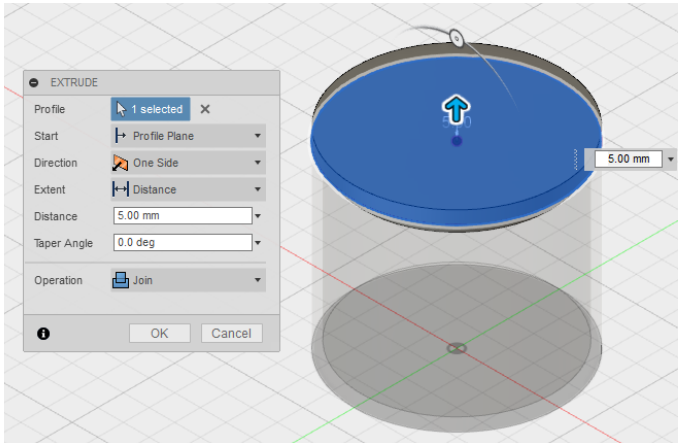
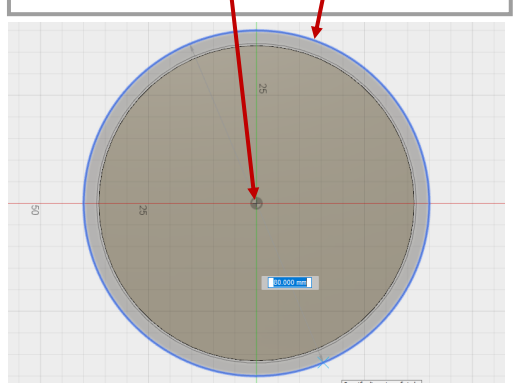


22) Open the "Construction" folder by clicking on the triangular tab next to it. Select "Plane 1" (this is the plane you made earlier).

23) Create another circle by pressing "C" on your keyboard.



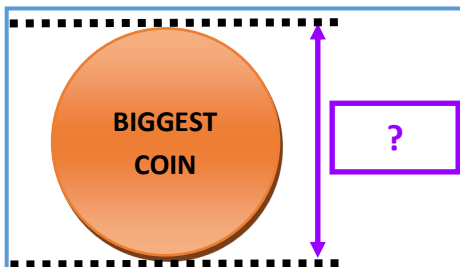
24) Select the centre point then drag the circle to the outside edge of your pot.



25) Press "E". Then select the circle you just created. Use the arrow to extrude 5mm upwards.

Customising Lid

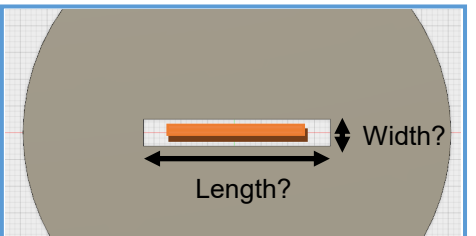
You now have a chance to customise your lid! You could etch your name into it, or add a handle, or cut your own design into it! I'm going to cut a slot so that I can insert coins into my pot. To do this first we need to measure a coin, the BIGGEST coin to be exact! What is the biggest coin??



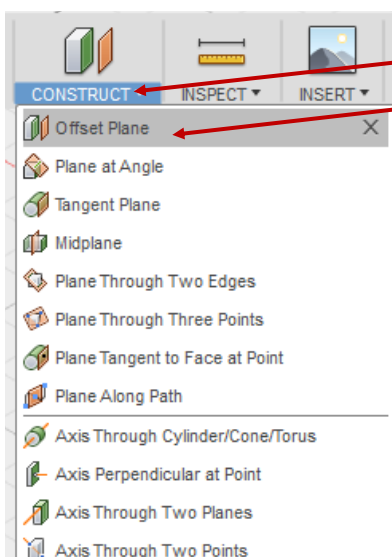
26) Use the callipers to measure the diameter of your biggest coin.



27) Use the callipers to measure the thickness of your biggest coin.

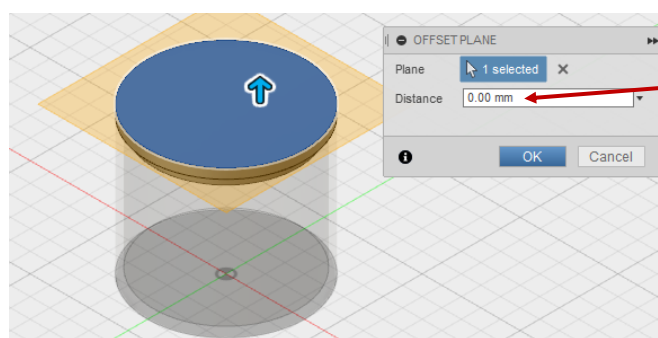
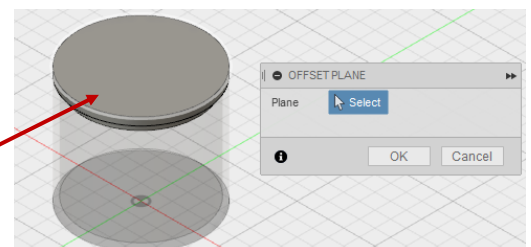


28) What length and width do you want to make your slot in order to fit your biggest coin through it?

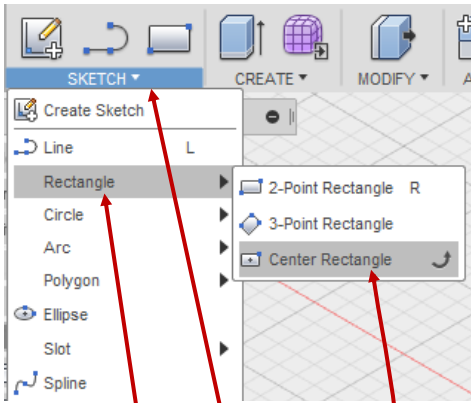


29) Go to "CONSTRUCT" then select "Offset Plane".

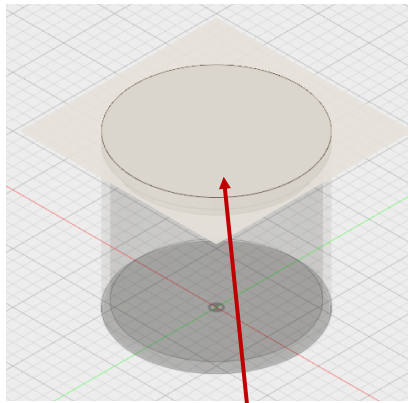
30) Select the top surface of your lid.



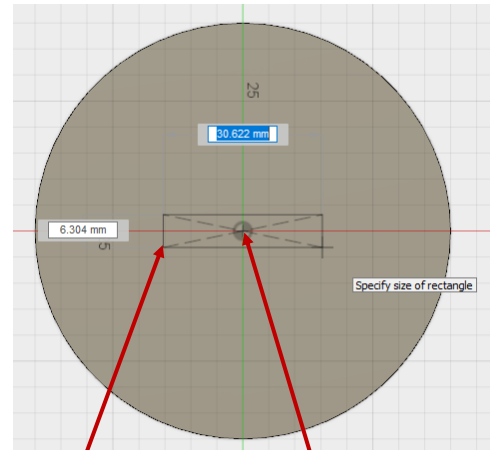
31) Set the distance to 0m then click "OK".



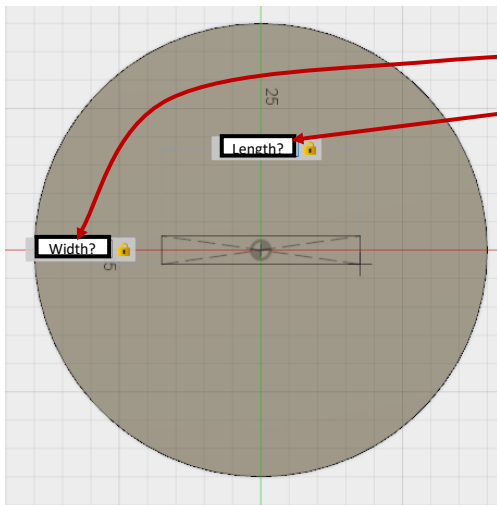
30) Go to "SKETCH" then "Rectangle" and select the "Centre Rectangle".



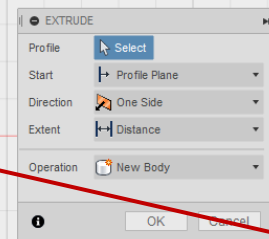
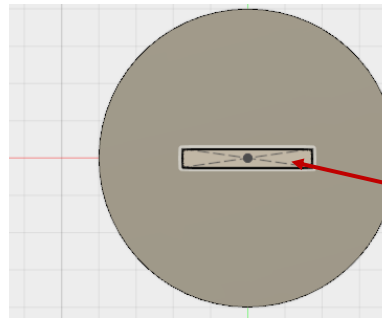
31) Select the Plane you just made to draw your rectangle on top of your lid.



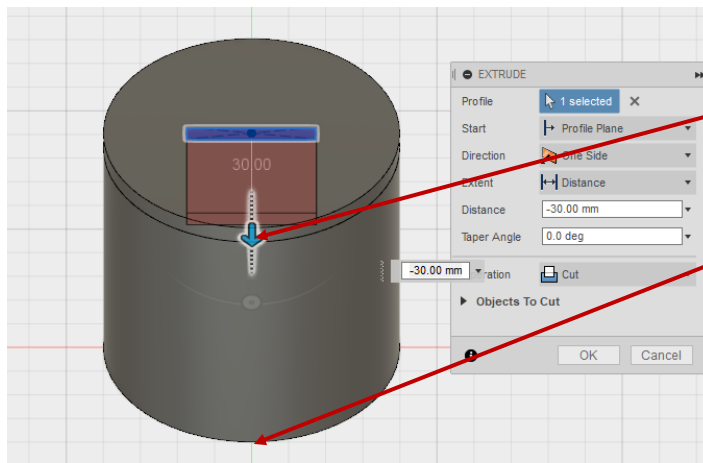
32) Click on the centre point then drag your mouse away.



33) Type the value of the width you decided on in step 28) into your keyboard. Then press the "tab" button on your keyboard and type the value of the length you decided on in step 28). Press Enter.

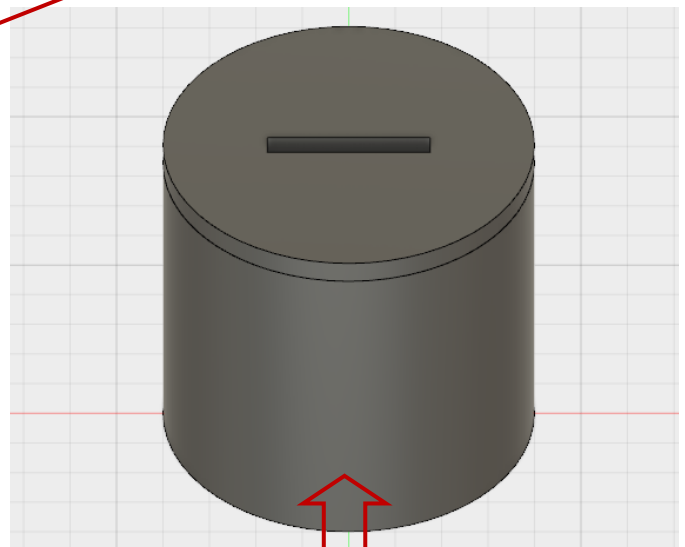


34) Press "E" to extrude. Then select your rectangle.

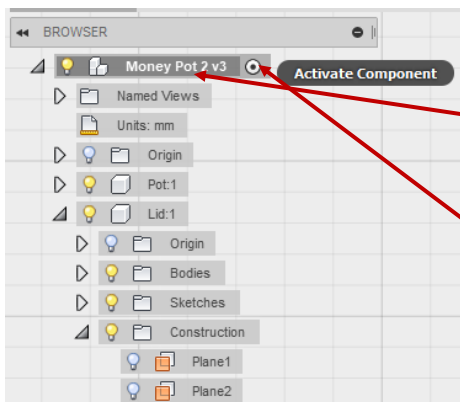


35) Grab the arrow and pull it down through your lid.

Note: Don't drag the rectangle past the base or you will cut a hole into the bottom of your pot.

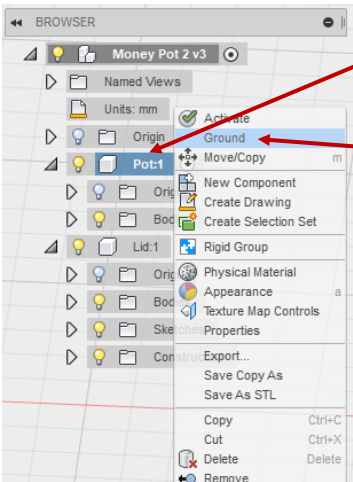


Your pot should look something like this. Now have some fun personalising your pot with extra features or designs of your own!

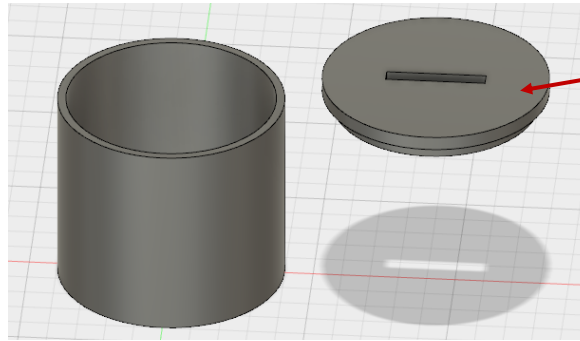


36) Hover your mouse over "Money Pot" in the "Browser" and select the circle. This activates both the "Lid" and the "Pot" components.

Creating Joints



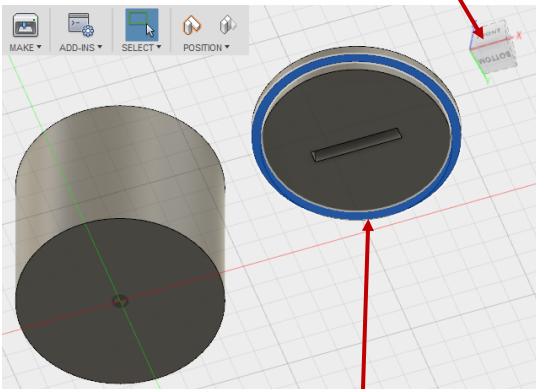
37) Right click "Pot" then select "Ground". We do this because to add joints you must always ground one of your components.



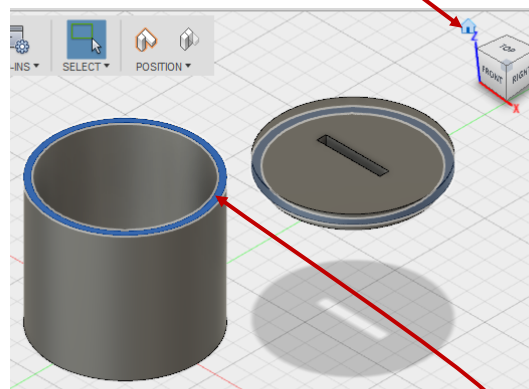
Note: If you tried to click and drag your pot it will not move, this is because we grounded it.

38) Click and drag your lid away from the pot. Notice that if you tried to click and drag your pot it will not move, this is because we grounded it.

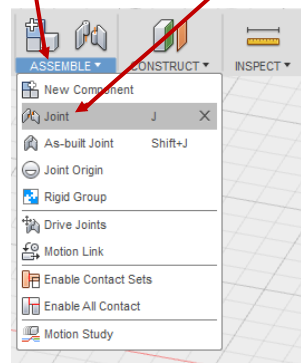
39) Use the view cube to rotate the screen so that you can see the underneath of your lid.



41) Select the home on the view cube.

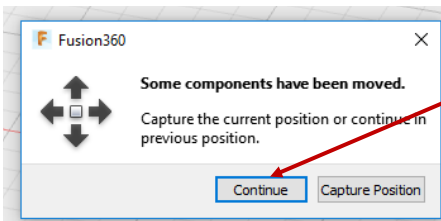


43) Go to "ASSEMBLE" then select "Joints". Alternatively you could press "J" on your keyboard.

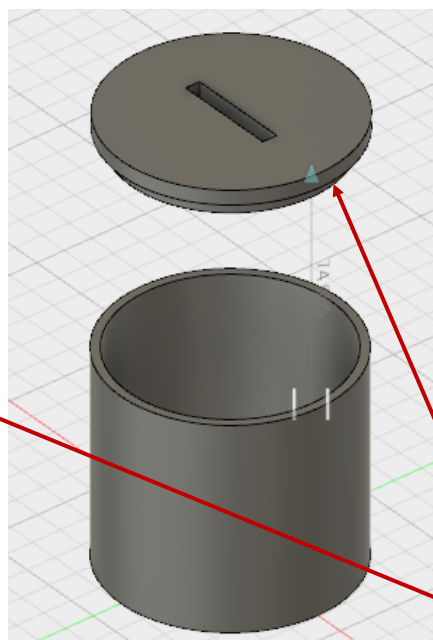
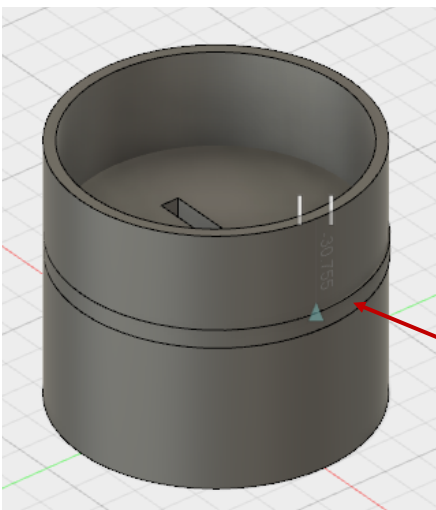


40) Select the underneath surface of your lid that would touch the rim of your pot.

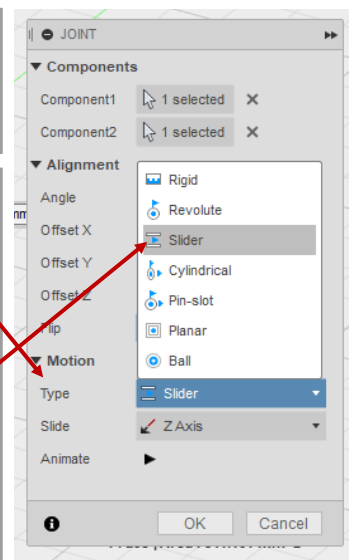
42) Hold the control button ("ctrl") on your keyboard down while you select the surface of the rim of your pot.



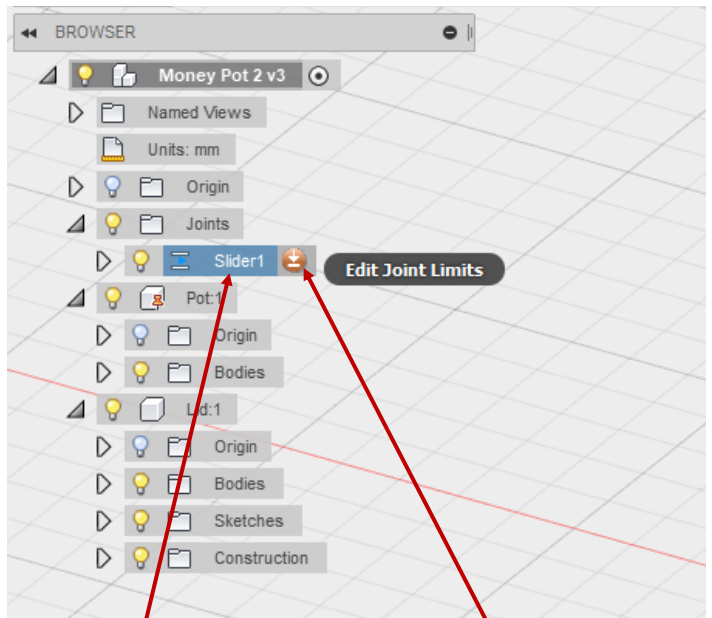
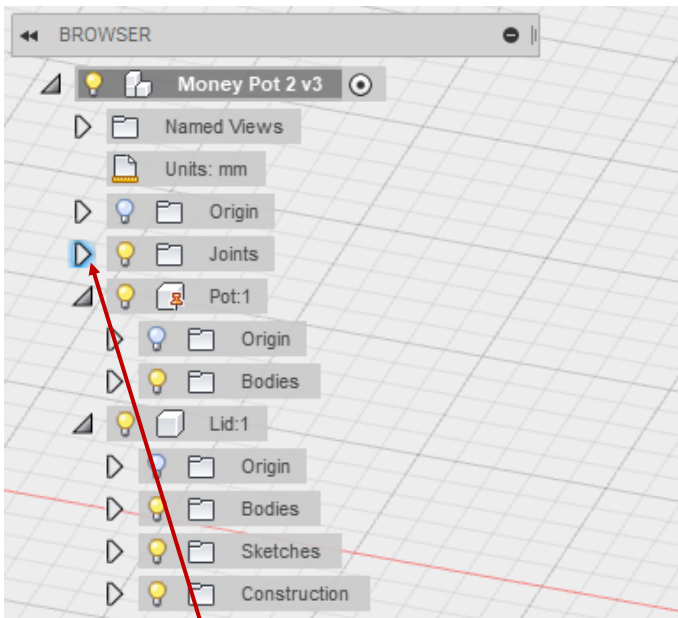
44) Click "Continue". Though in this case it doesn't make a difference if you press "Continue" or "Capture Position".



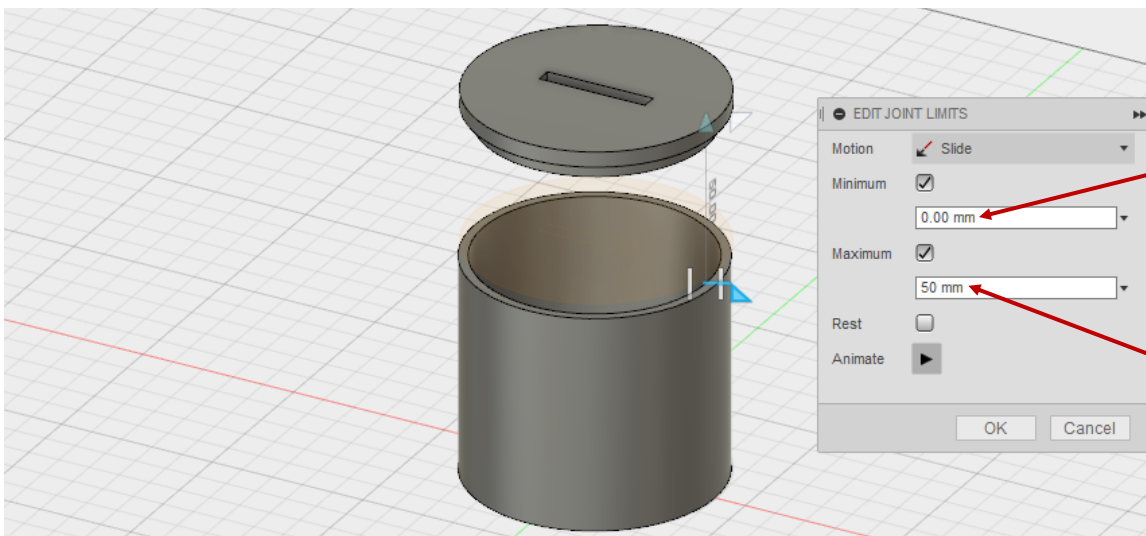
45) Click on the "Type" option and select "Slider". Then click "OK".



46) Have a go at clicking and dragging the lid in different directions to see the effect this joint has done. Notice it doesn't have real world restrictions.



47) Click the tab next to the “Joints” folder. Hover over the “Slider” joint then click on the red edit joints symbol.



48) Make the minimum distance the lid can move 0m away from its original position. Make the maximum distance a positive 50m. Click “OK”.

49) Now click and drag the lid up and down to see the effect of the limitations we have placed on the joint. Notice the lid behaves like we would expect a real lid to.

You have now finished creating and jointing your money pot.