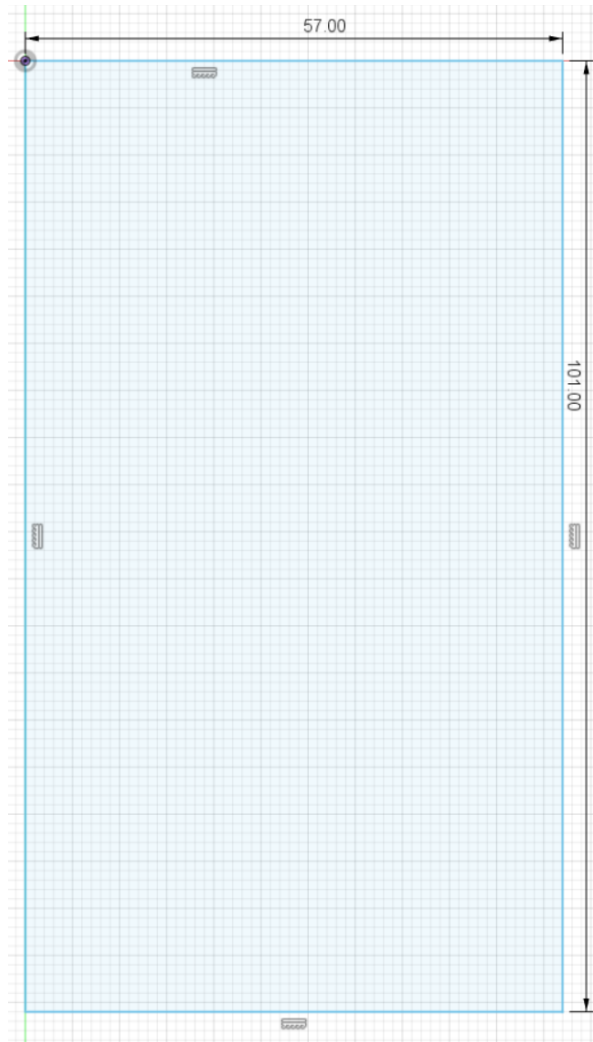# Middle part

1. Create a new design file by pressing the plus sign (right top). (You can close the base **IF YOU SAVED IT**).
2. Create a sketch on de ground plane
3. Draw a rectangle on it
4. Set the right dimensions of the rectangle (see figure below)
   The drawing should look like this:

Finish the sketch by pressing the finish sketch button.


5. Extrude the whole square.

   Set the height of the extrude to "**1 mm**", this can be done by filling in the value or pulling the arrow

If everything is alright you have now a 3D object

Save your drawing (Ctrl + S) and type in your progress since last time

6. Create a new sketch, on top of your 3D object. (Select top of 3D object → Create sketch)
7. Draw two rectangles and set the right dimensions, see picture below.
8. Draw a circle
   a. Set the centre offset right using the set dimensions tool
   b. Set the diameter right using the dimensions tool
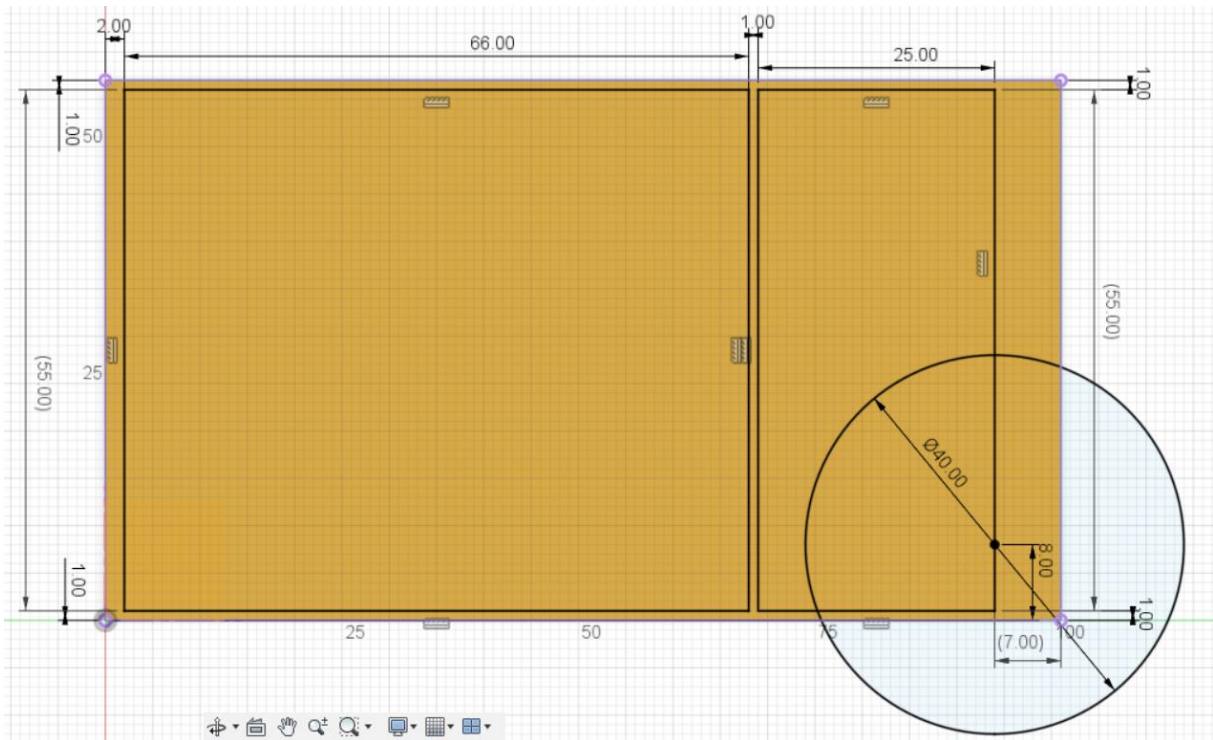
Finish your sketch again.

If everything is correct you have the same drawing as in the figure (don't mind the colour of the object)

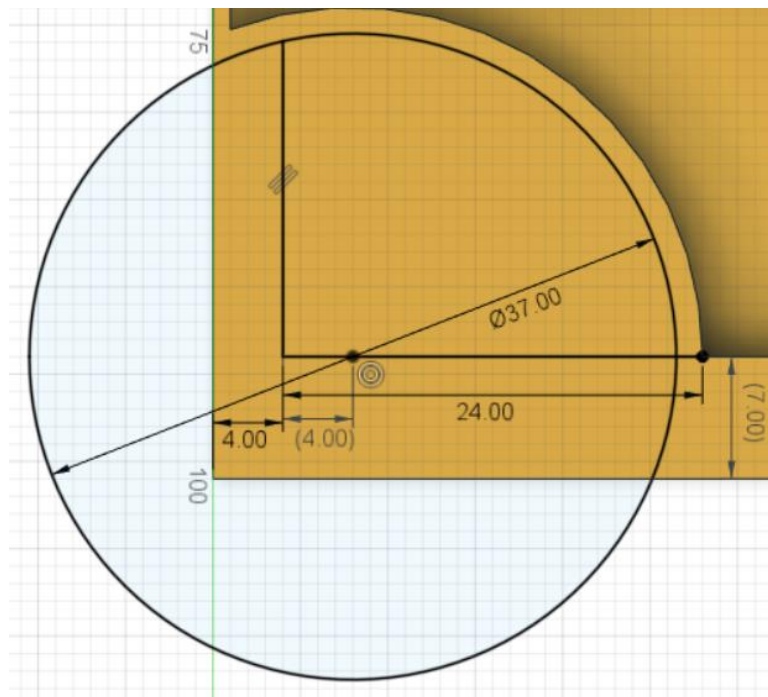Save your drawing (Ctrl + S) and type in your progress since last time

We are going to extrude everything except the two inner squares.

9. Click extrude then click the faces you want to extrude and set it to **5 mm**. See figure below, dark blue is extruded.
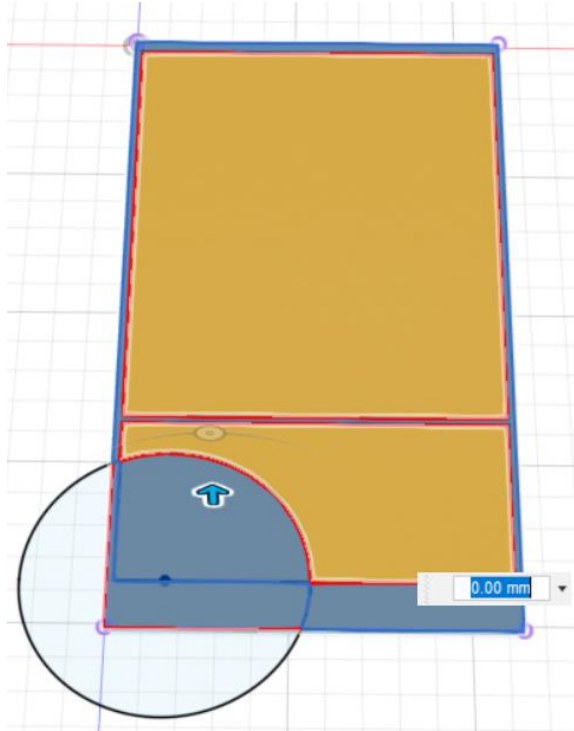
10. Create again a new sketch on the top of the just created extrude.
11. Draw a circle and two lines such as depicted below. Tip: first the horizontal line, then the circle lastly the vertical line.

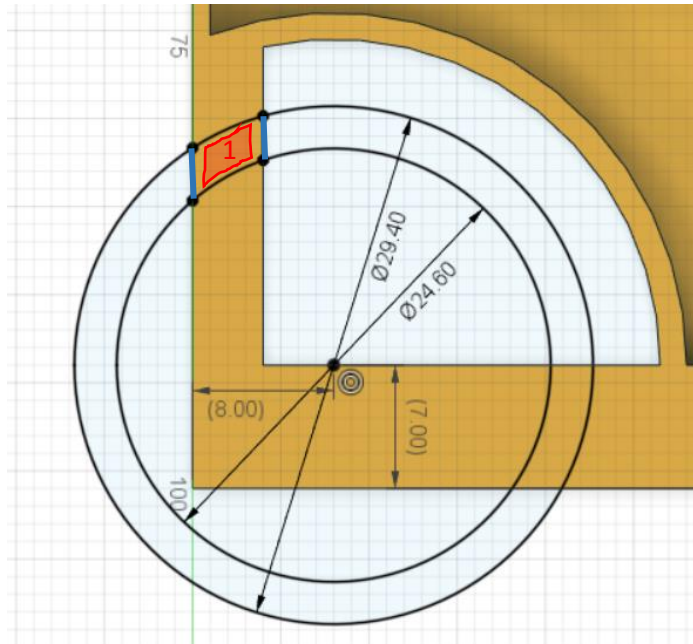Save your drawing (Ctrl + S) and type in your progress since last time

Now we are going to use the extrude tool, to create a cut in the current design.

12. Extrude the (almost) quarter part of the circle, but now pull the arrow down or enter **minus six mm (-6 mm)** as value. The part should become red and the operation should change to "cut". If it doesn't change to cut automatically set it to it manually. See figure below.
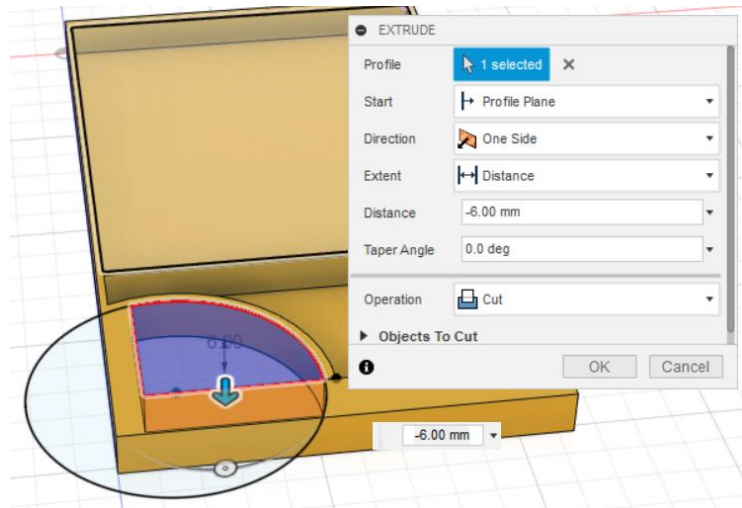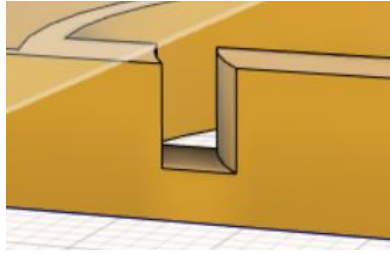

13. Create another sketch on top of the 3D object. (Select top of 3D object → Create sketch)
14. Draw two circles and lines just as in the figure below don't mind the red number yet.
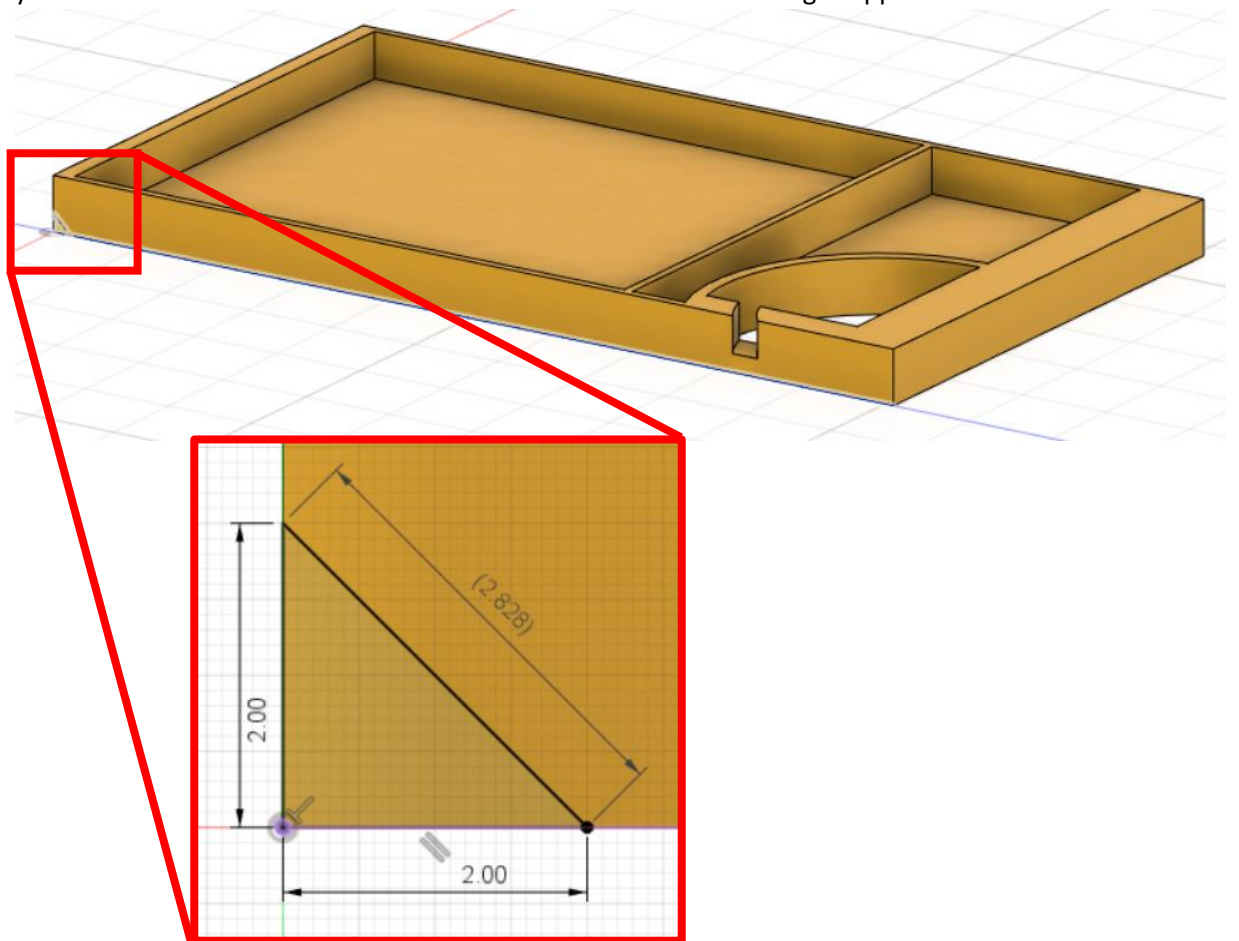

Save your drawing (Ctrl + S) and type in your progress since last time

15. Use again the extrude tool to make a small cut in the created surface (1). Cut it 4 mm through such that it looks like the following.

Now we are going to create a sketch on the left side of the 3D object. It is handy to change your view here to the left. This can be done with the cube in the right upper corner.
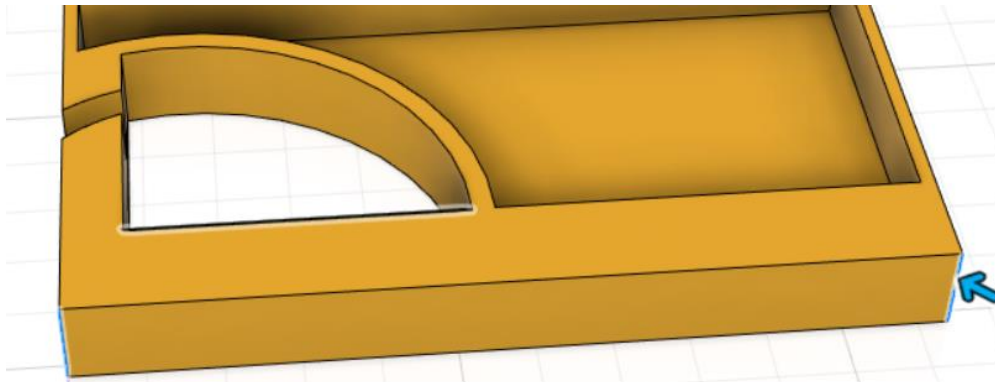

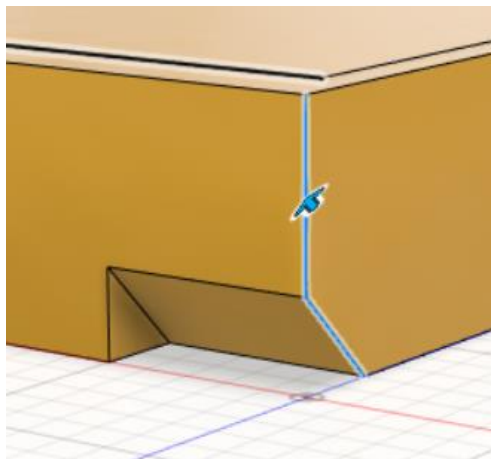Save your drawing (Ctrl + S) and type in your progress since last time

16. Create a new sketch on the left side of the object (Select left side of 3D object → Create sketch)
17. Create a triangle (on the corner down) left using the line tool as is depicted above. (draw the horizontal and vertical line first)
18. Use the extrude tool to cut this triangle **5 mm** inwards.

19. Select fillet then the two bottom corner lines (just click one first and then the other), just as in the figure below.
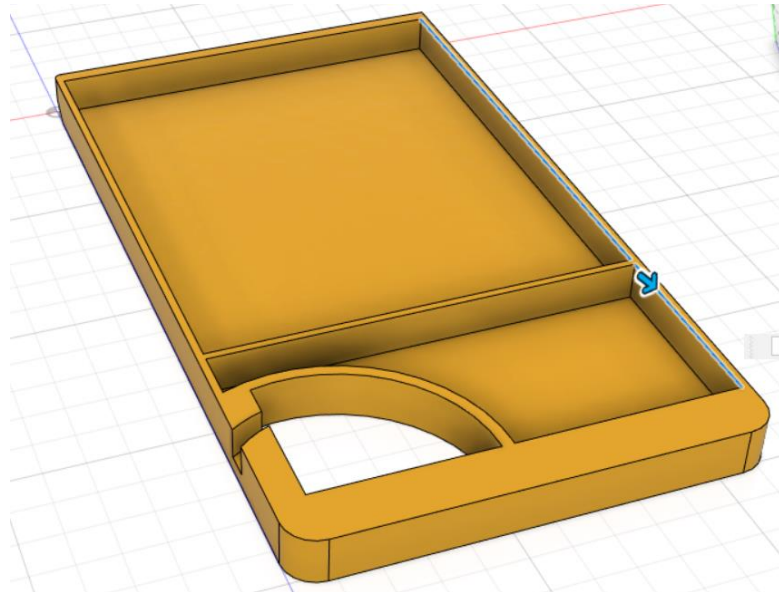

20. Adjust the value to **4 mm** (same way as with the extrude function).
21. Add a fillet of **1 mm** on the sides of the triangle on the top left, the blue lines in the figure below.
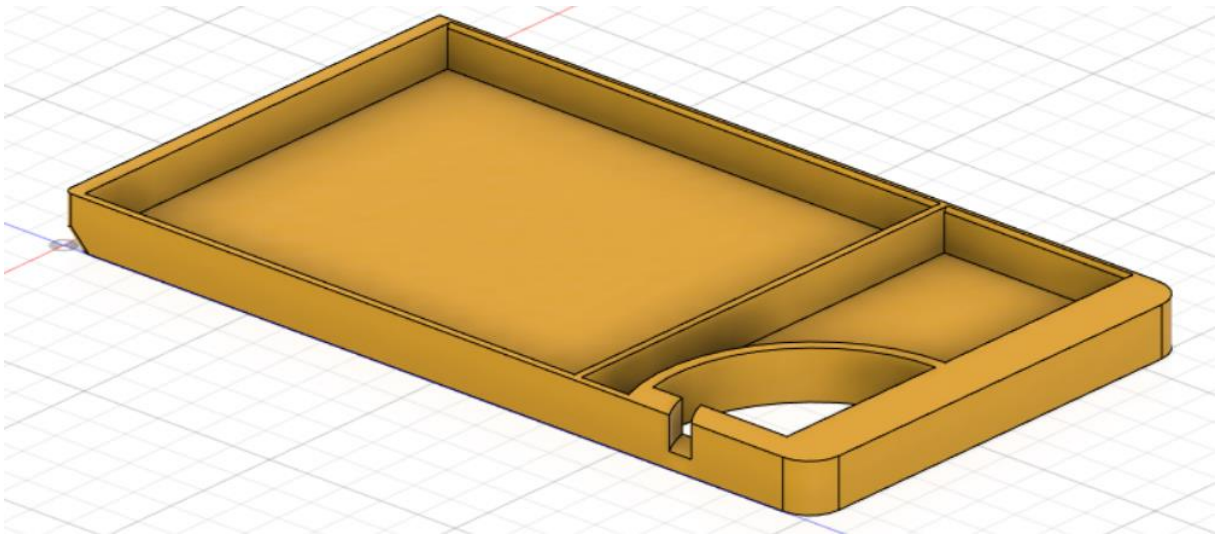

Save your drawing (Ctrl + S) and type in your progress since last time

22. The last fillet is on the right side of the inside of the box. The figure below shows the two selected corners. This one is going to be **0.5 mm**.

Congratulations you have just finished the middle part of the whole project.
Don't forget to save it.
It should look exactly the same (except for the colour) as the picture shown below.

Save your drawing (Ctrl + S) and type in your progress since last time