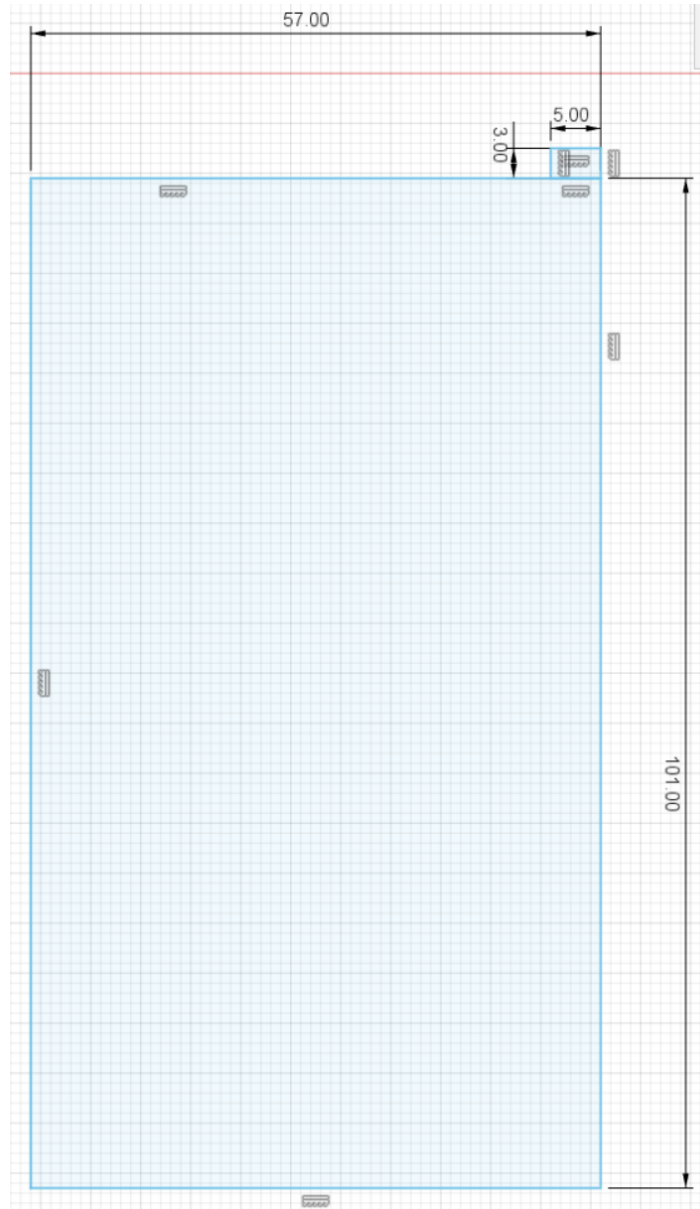


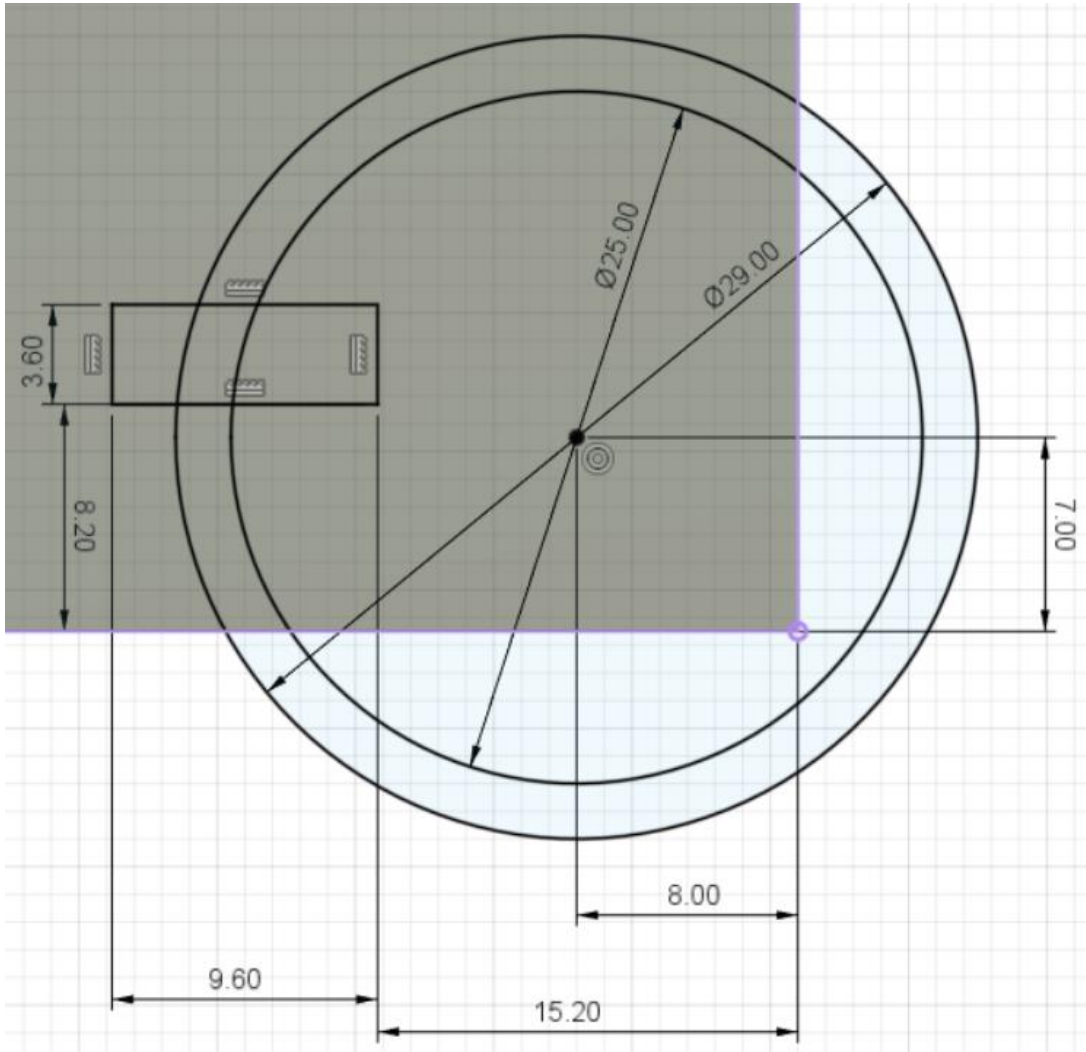
Top part

1. Create a new design file by pressing the plus sign. (You can close the mover **IF YOU SAVED IT**).
2. Draw two squares just as in the picture below.
3. Extrude the big square to **2 mm** and the small square to **14.5 mm**

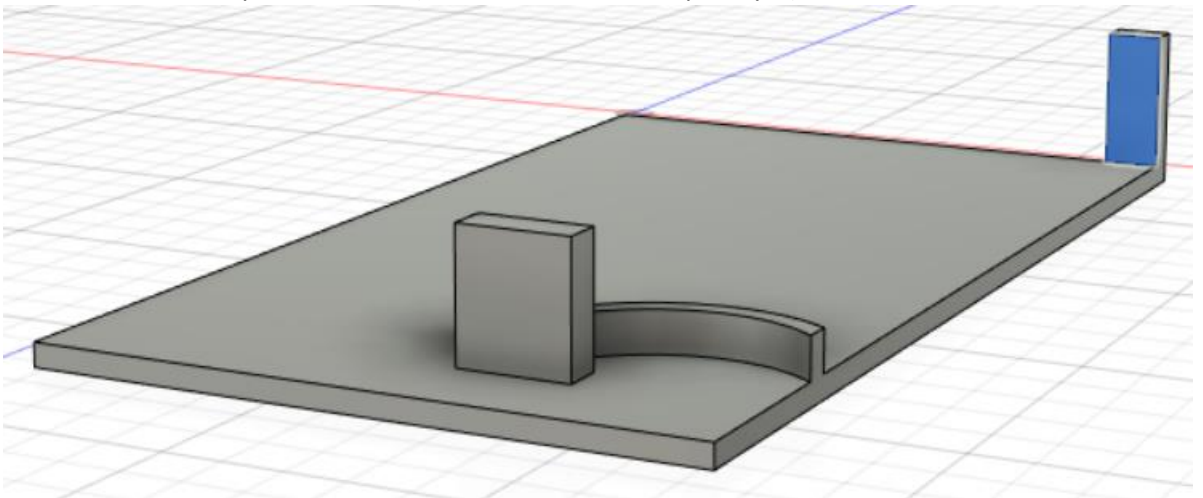


Save your drawing (Ctrl + S) and type in your progress since last time

4. Create a sketch on the top of the big surface, and recreate the sketch below.

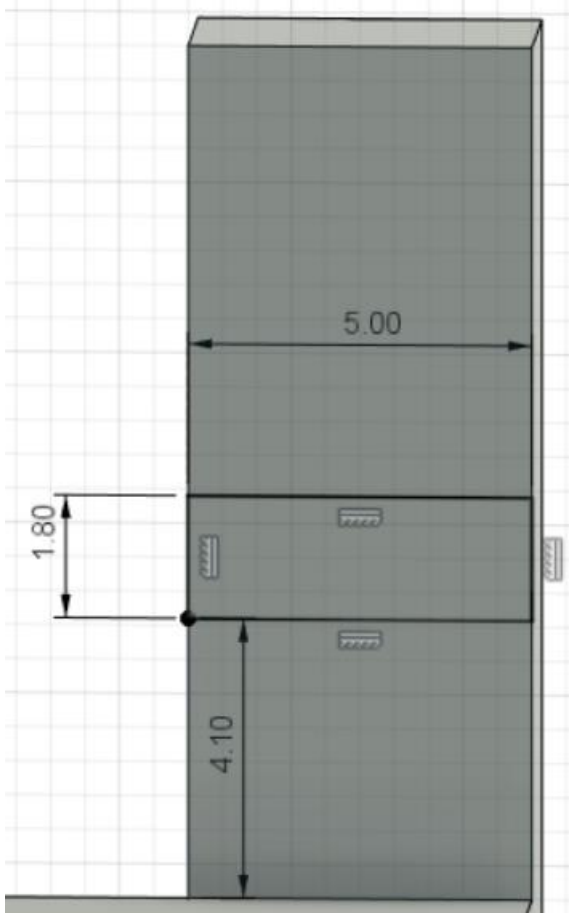


5. Extrude the created square to **11 mm** and the upper part of the circle to **3.5 mm**, the total should look like the picture below (don't mind the blue square yet).



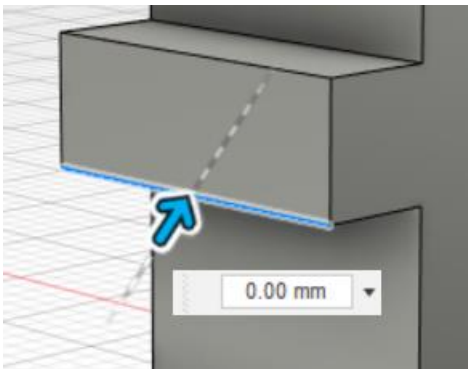
Save your drawing (Ctrl + S) and type in your progress since last time

6. Create a sketch on the surface marked blue in the previous picture.
7. Create a square such as below and extrude it to **1.6 mm**.



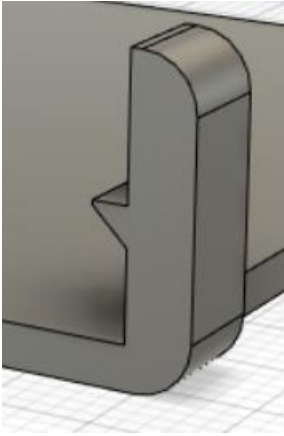
We are going to use a new tool. It is called chamfer and can be found under the modify tap. It transforms a corner into a slope.

8. Create a chamfer of **1.6 mm** on the lower corner of the just created extrusion, see picture below.

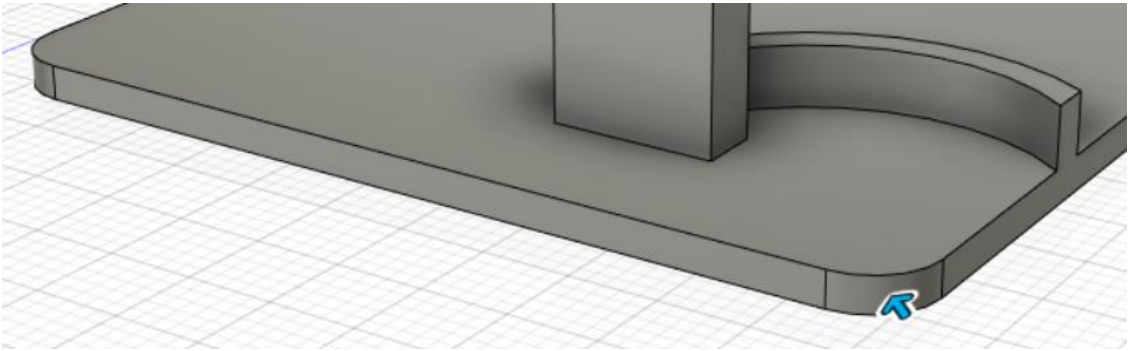


Save your drawing (Ctrl + S) and type in your progress since last time

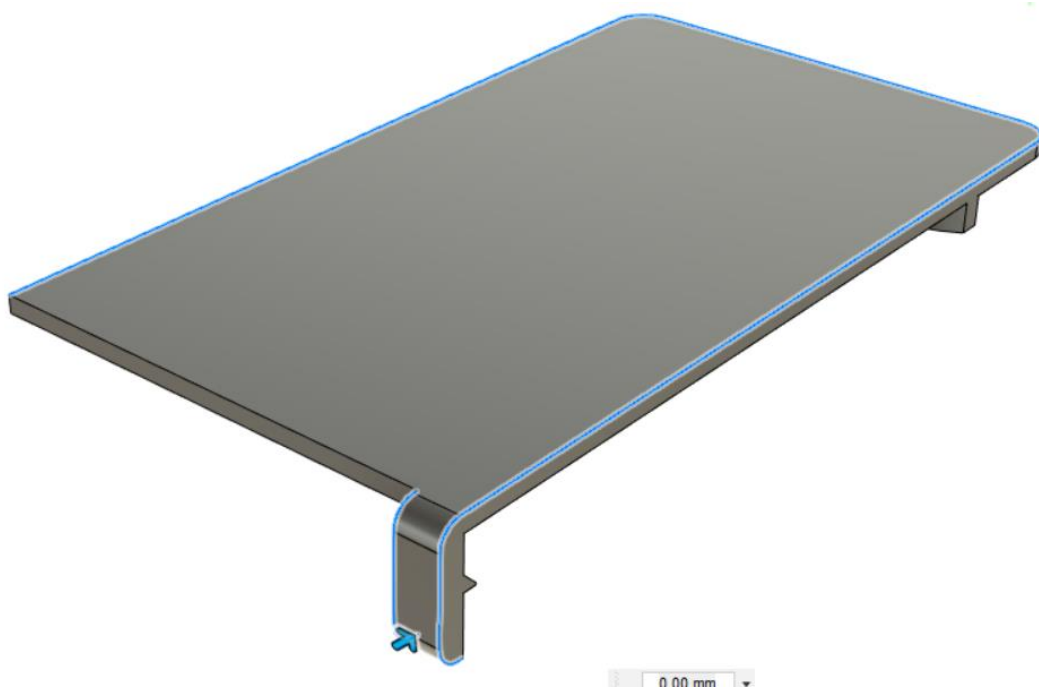
9. Create a fillet of **2.5 mm** on the outside (top and bottom) of the upstanding pillar. Such that it looks like this,



10. Create a fillet of **4 mm** on the down corners of the big square.



11. Create a fillet of **1 mm** on the outside bottom lines. (the ones marked blue in the picture below)



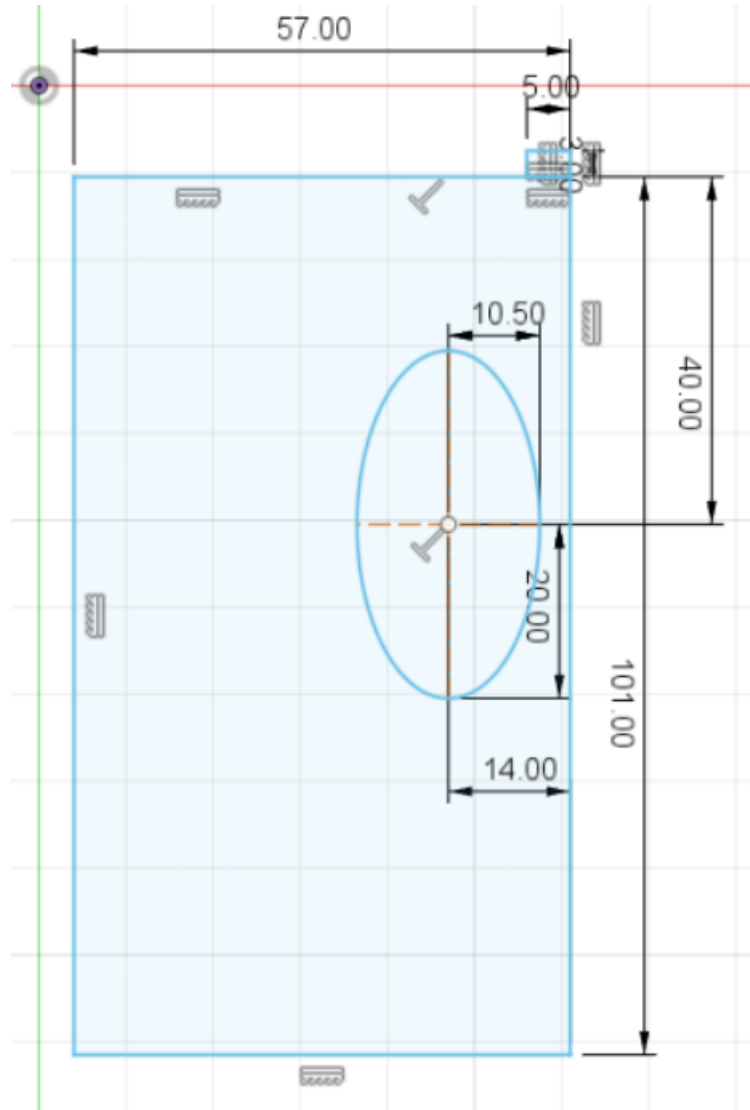
Save your drawing (Ctrl + S) and type in your progress since last time

Lastly we are going to edit the first sketch a bit.

12. double click the first sketch in the balk on your screen (downside).

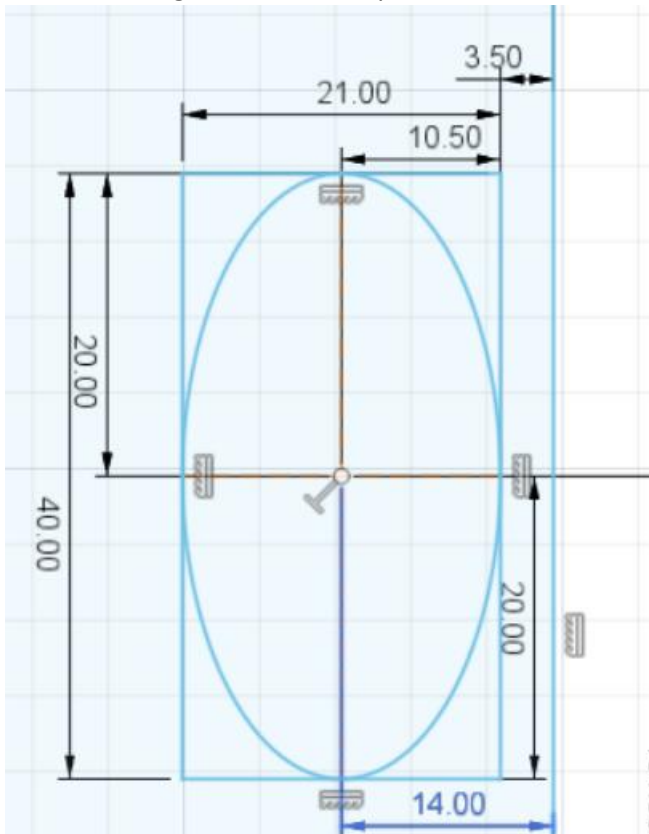


13. Create an eclipse such as in the picture below (tab: Create → Eclipse). You can again set the dimensions with the dimensions tool.

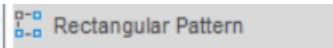


Save your drawing (Ctrl + S) and type in your progress since last time

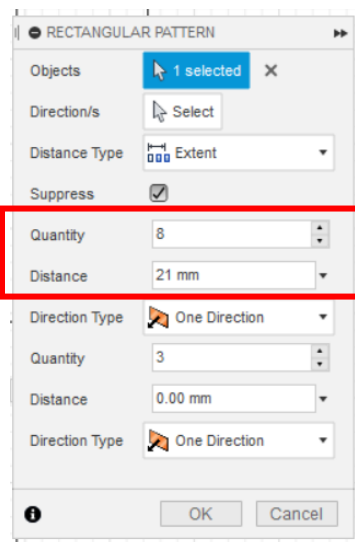
14. Draw a rectangle around it see picture.



15. Select the left vertical line of the square, then select the rectangular pattern tool (under the tab Create)

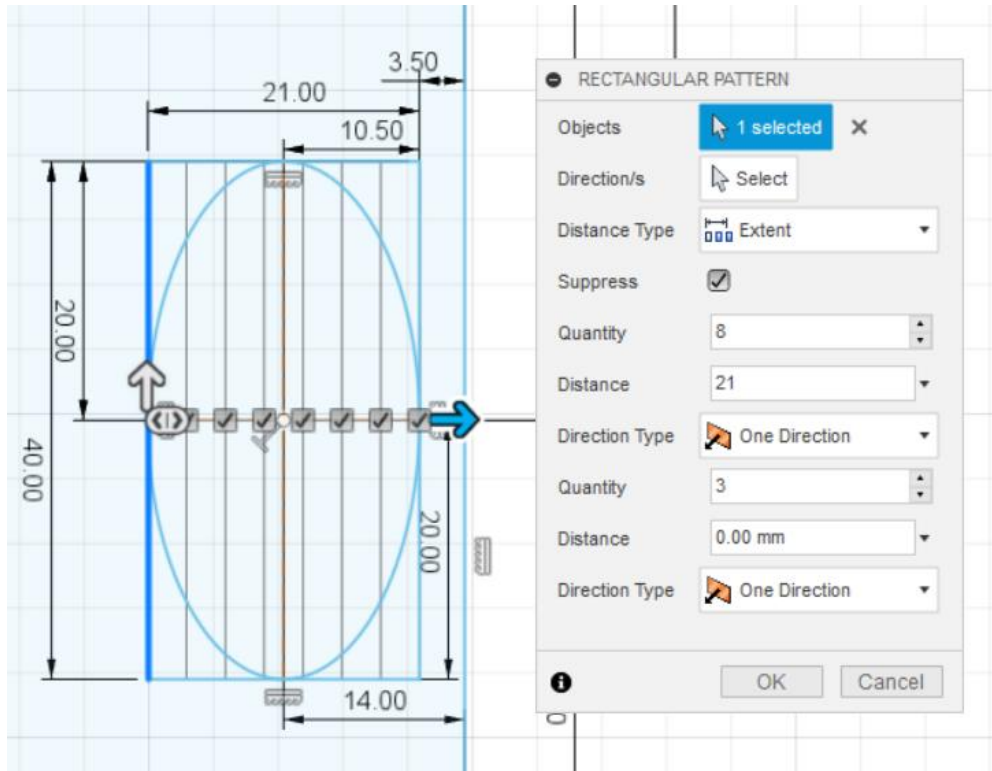


16. Set the quantity to 8 and the distance to 21 mm just as in de picture below



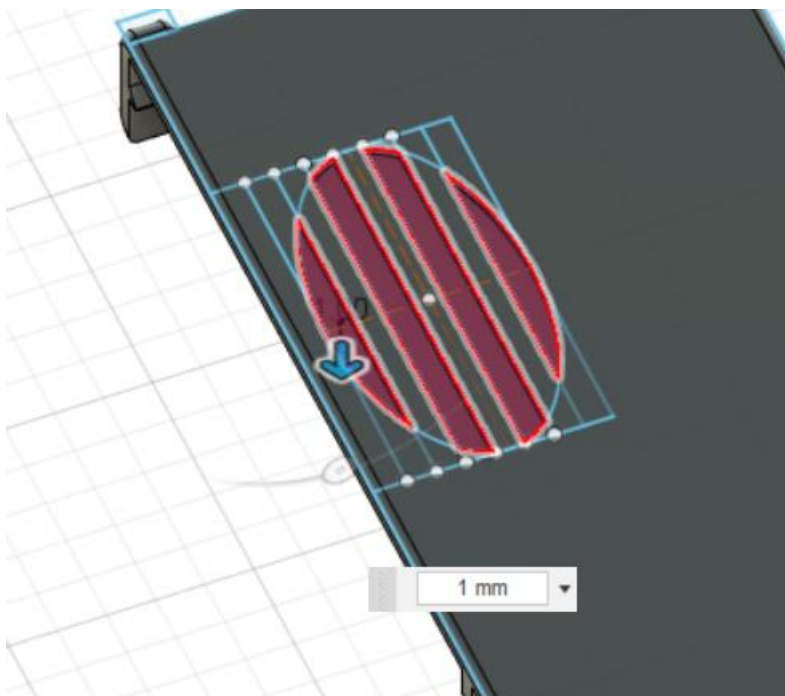
Save your drawing (Ctrl + S) and type in your progress since last time

Now it should look like this



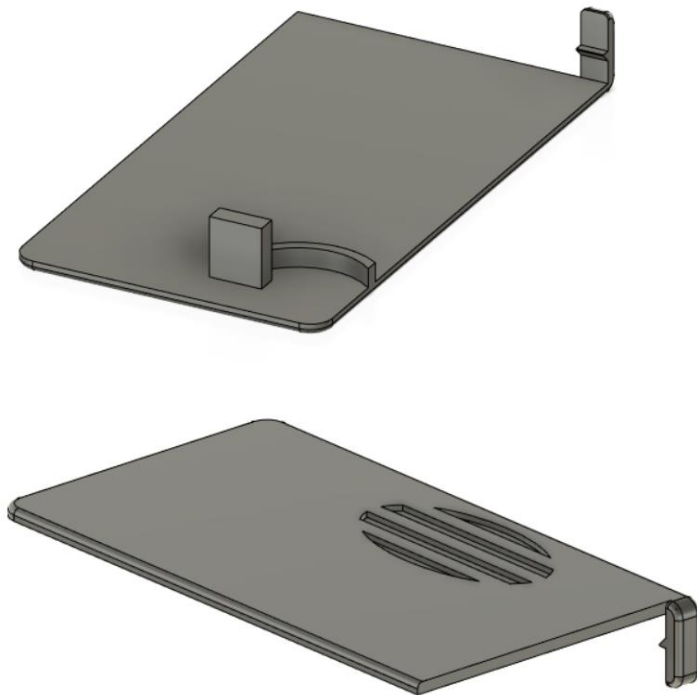
Press "ok" and finish the sketch

17. Cut (extrude) the red faces (see figure below) 1 mm into the bottom of the object (it might be 1 mm instead of -1 now).



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

Congratulations your last part is done. It should look like this.



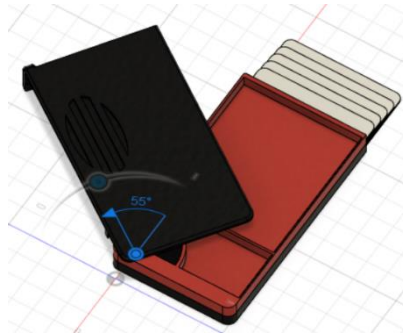
You can tune your own design with the following ideas.

- Add your name/phone number on the top or bottom
 - Create a sketch
 - Use the text tool (tab: create → text) to type something.
 - Extrude the letters (about 0.2 or 0.3 mm should be fine).
- Add a (borrel) coin holder into your middle part.
 - Create a small circle where it will fit in (make it slightly bigger than the real coin)
 - Extrude it
 - Make a small gap for your thumb to get it out.
- Add more fillets to make your design even more smooth
 - Watch out somethings have to stick to each other, straight parts stick better
 - Watch out, a fillet is very thin in some point making the edges of your design less stable.
- Put the whole thing together in the 3D software.
 - Create a new design
 - Right mouse click on the design you want to insert in the current design(on the left)
 - Insert it and move it such every part fits nicely together (use the move tool, select body and press “M”)
- Change the colour of your 3D design (doesn't affect your real 3D printed version)
 - Select a body and press “A”.

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

- Create a working card holder in your 3D drawing (advanced)
 - Create a card design with the dimensions of a real card (use google)
 - Put the whole card holder together in one new design.
 - Create sliding joints (tab: assemble → joint or “J”) for the 5 cards in the deck such that they slide in and out.
 - Edit the joints such that their rest position is such that the cards are inside the cards holder. Right mouse click on the joint in the timeline bar down, “edit limits” , set rest to 0 if correct, otherwise to the value needed to leave it inside the cards holder.
 - Create a rotating joint for the mover (the rotate axis can be the small cylinder in the base).
 - Create a contact set consisting of the cards and the mover. (tab: assemble → new contact set)
 - Create a rigid joint connection between the top (the pillar of the top inside the mover) and the mover.

If you rotate the rotating joint, the top should move with the rotator and the cards should slide out with 5 different offsets. See picture:



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