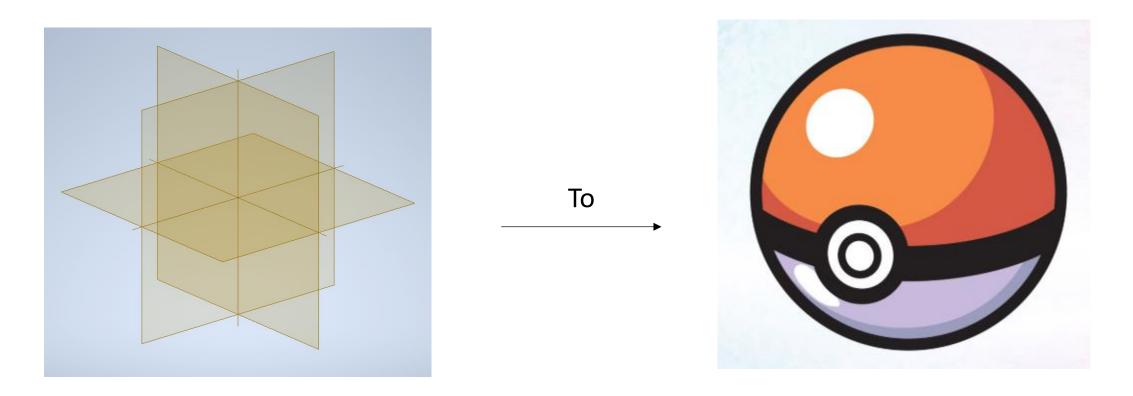
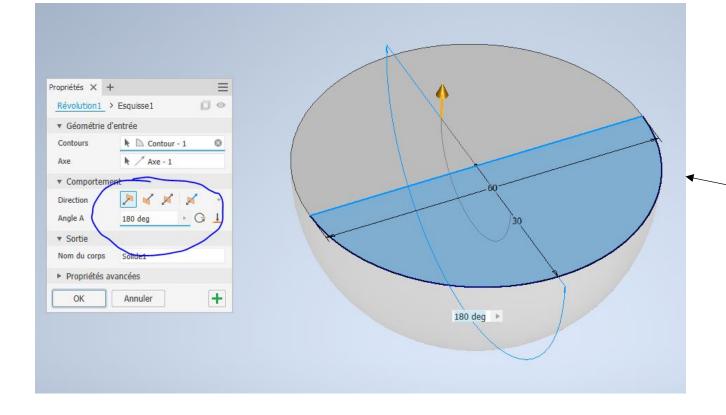
## **Objective pokeball**



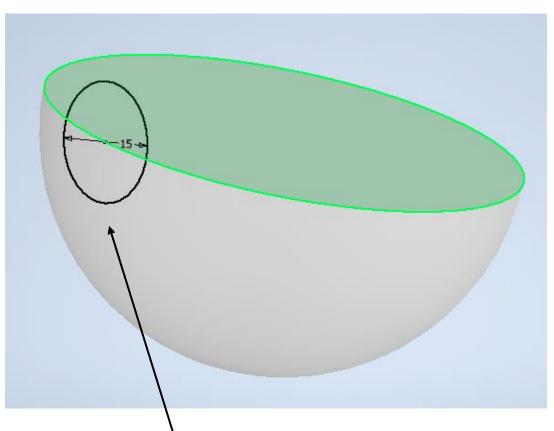
The objective is to create a 3D pokéball with the software Inventor

Then we make a half revolution around the central axis to obtain a half sphere

We start by making a quarter of our sphere, then we make a revolution.



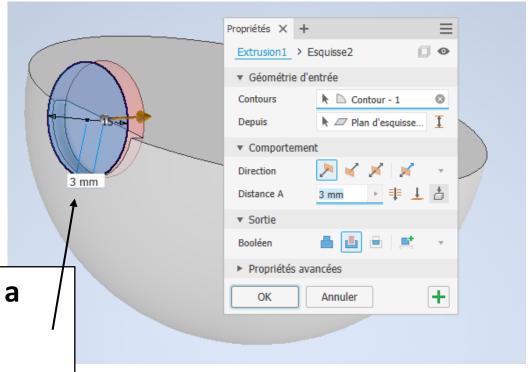
Then we make a half revolution around the central axis to obtain a half sphere



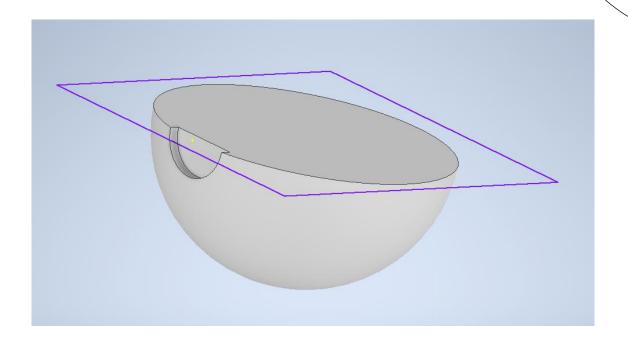
First we create a new sketch with a circle of 15 mm diameter:

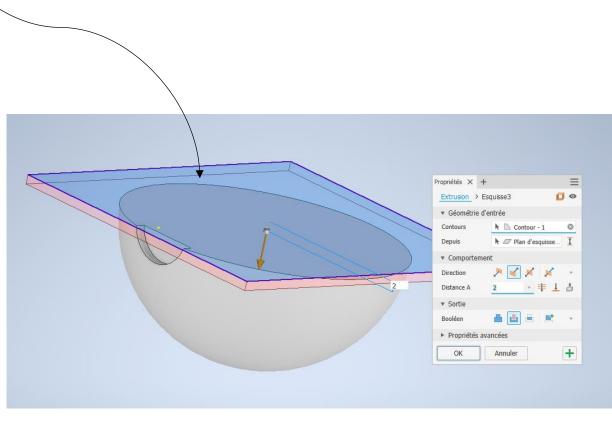
Next we do a reverse extrusion:

we do this part there:

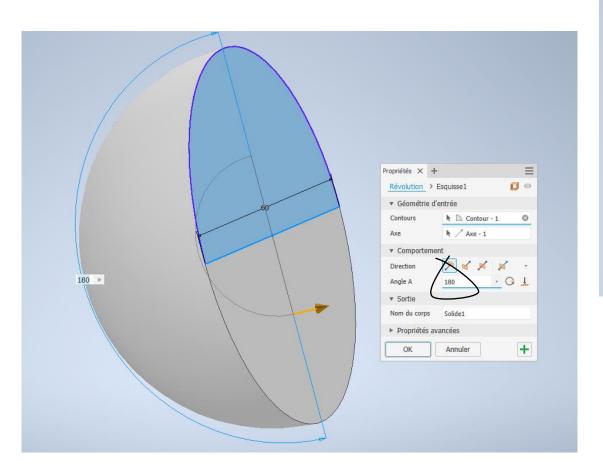


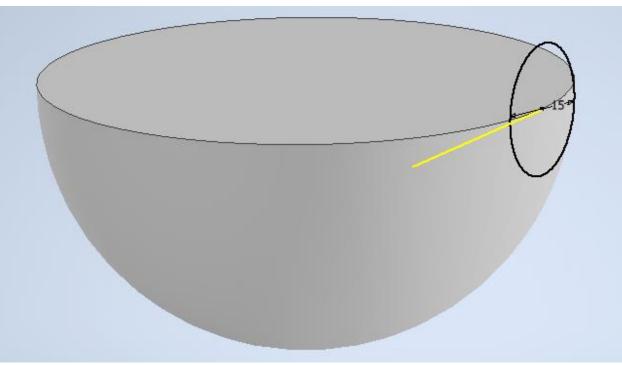
Then we remove a little material (2 mm) to make room for the future middle part



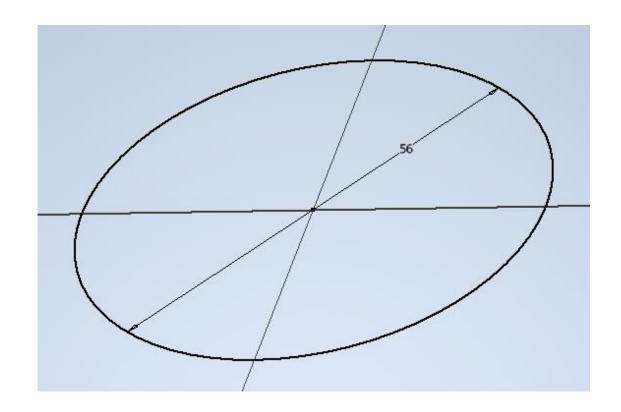


For the upper part, it is important to repeat the same operations as for the lower part (return to see the last 3 slideshows)



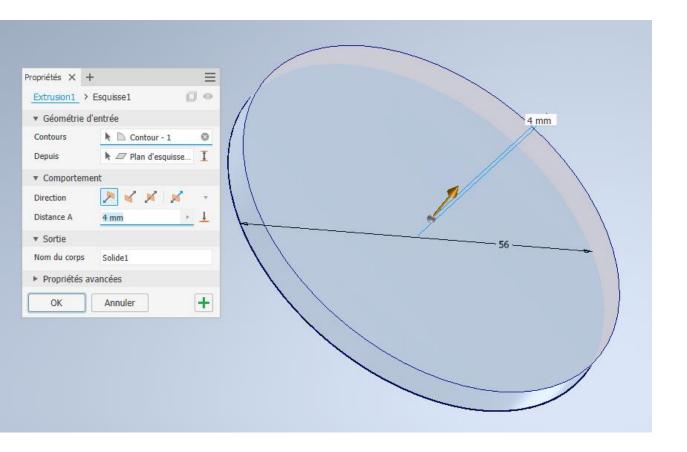


For the middle part, it is important to respect the dimensions, namely a disc 4mm smaller than the diameter of the upper and lower parts.

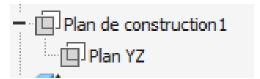


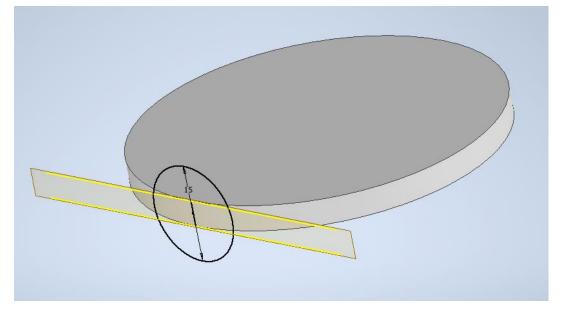
So we place a circle of 56 cm in diameter on a new sketch

we make a 4 mm extrusion because that is the space we left between the two parts of the pokeball

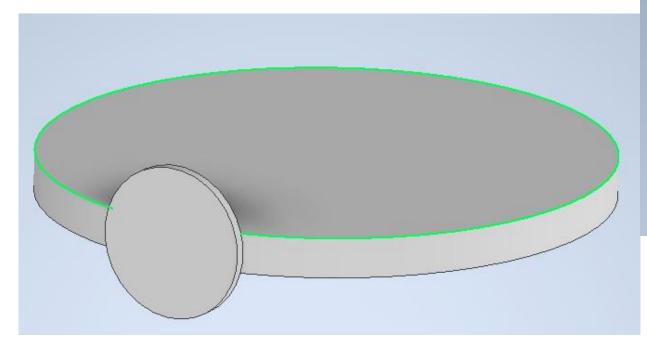


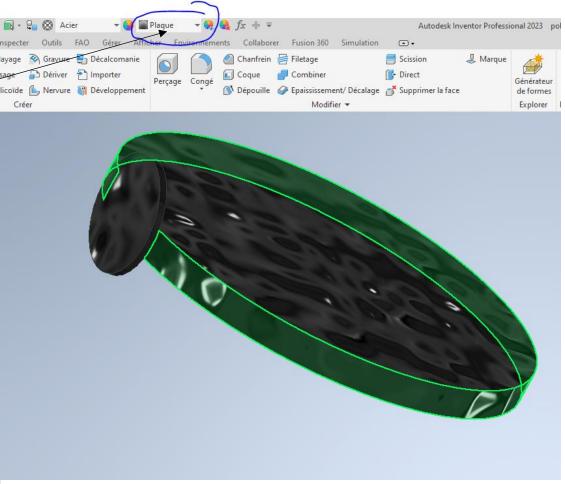
Then from the construction plan, we place a new sketch with a circle of diameter 15cm as in the image below



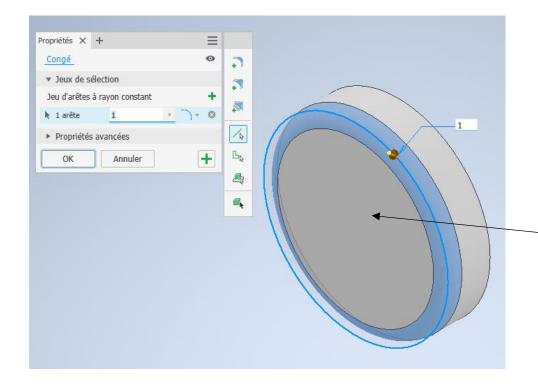


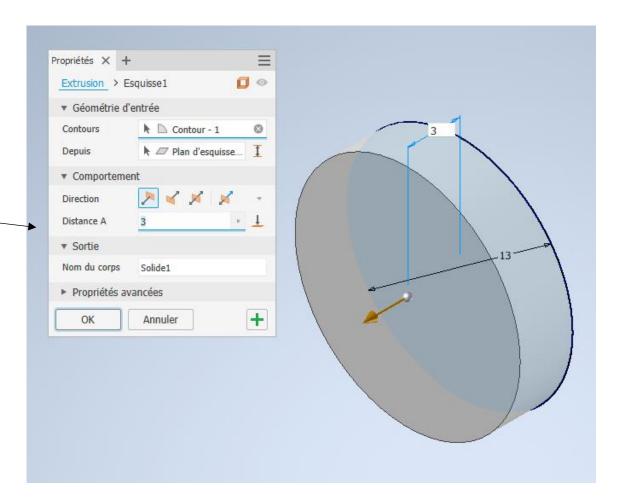
Once the middle is done, we can give it its color which is black here. (black is bugged on the inventor)



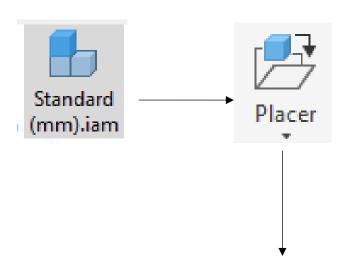


Then we start the small white button in the middle of the pokeball, we make a circle of 13cm in diameter on a new sketch, then we extrude it by 3mm to respect the thickness of the pokeball

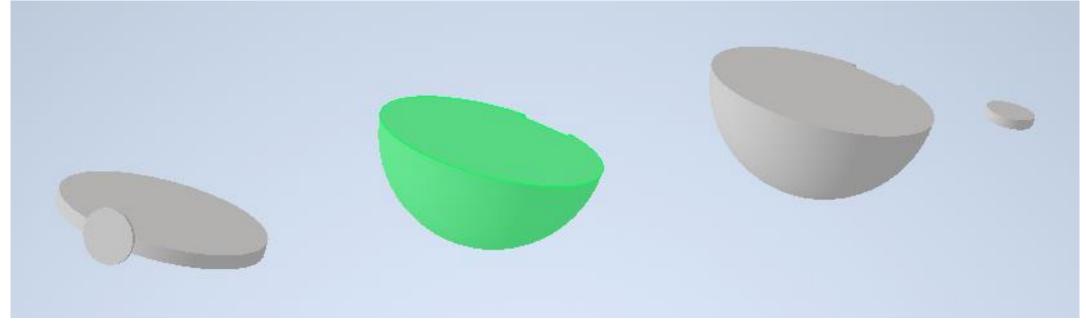




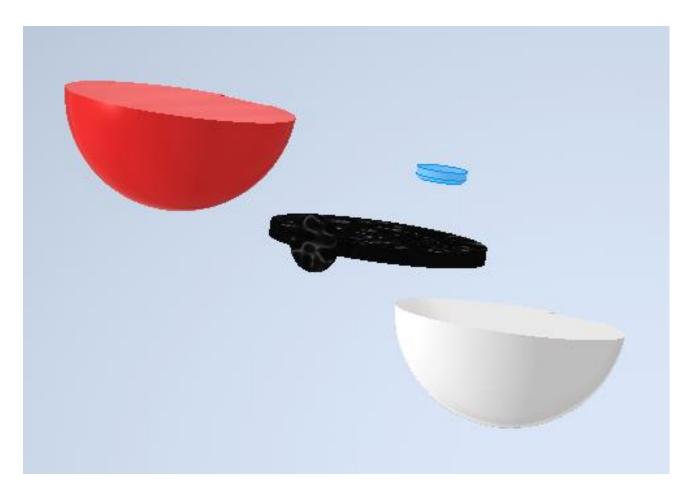
Then, to add details and more realism, we can make a small "Congé" on the edge of the piece

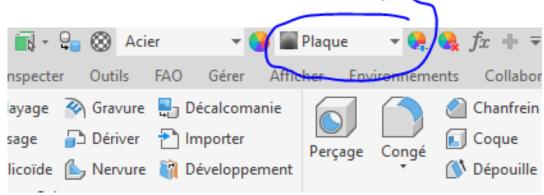


Then to assemble all our parts, we must create an "assembly" then go to the "location" section to finally put all our parts in the same place.

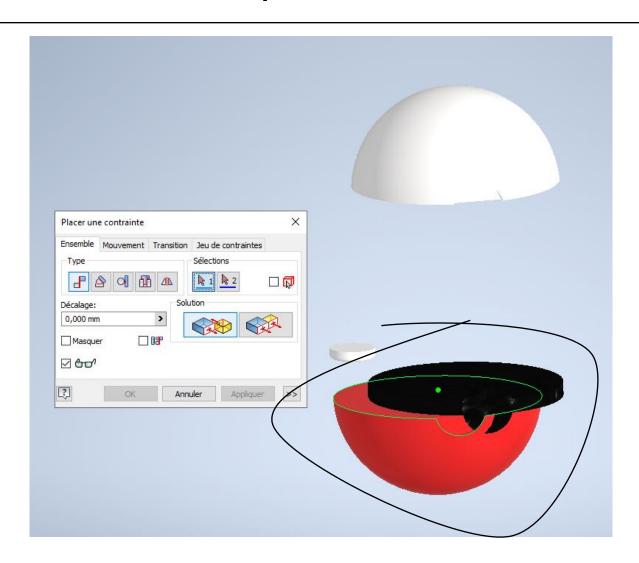


The upper part is colored red using the same method as in slide n°8.

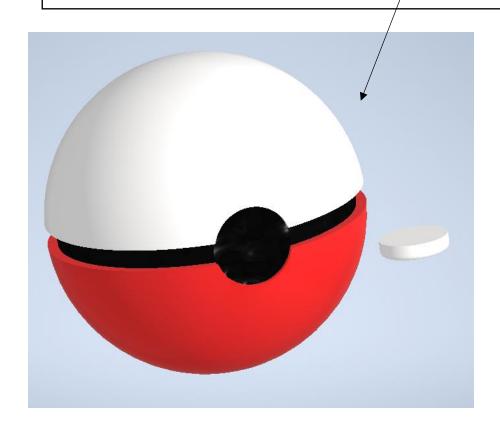




Once all the colors are in place, we need to put them all in the correct position as shown below, then we start putting the constraints on the middle part which will serve as the base.



Once the three main parts are assembled, we should have a result similar to this one



Then we can place the last constraint with the button in the center of our Pokéball.







The final product:



Thats it!

