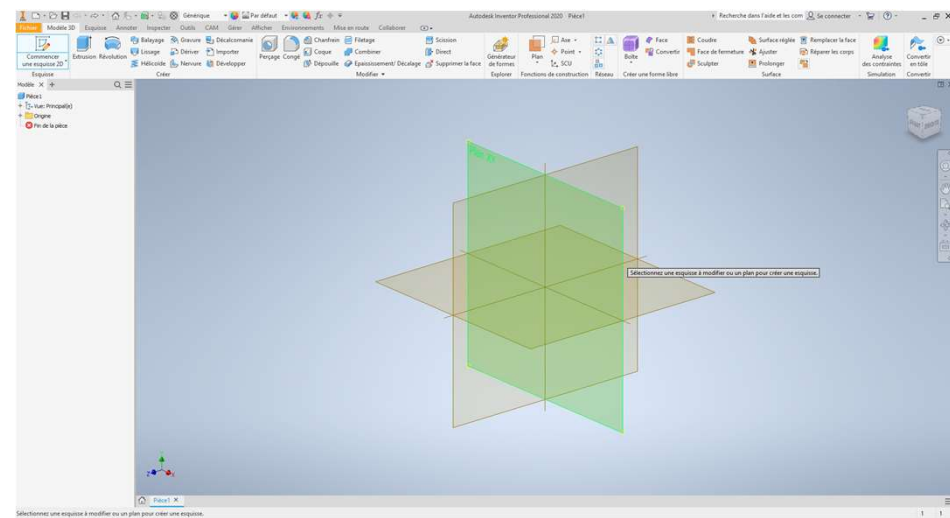
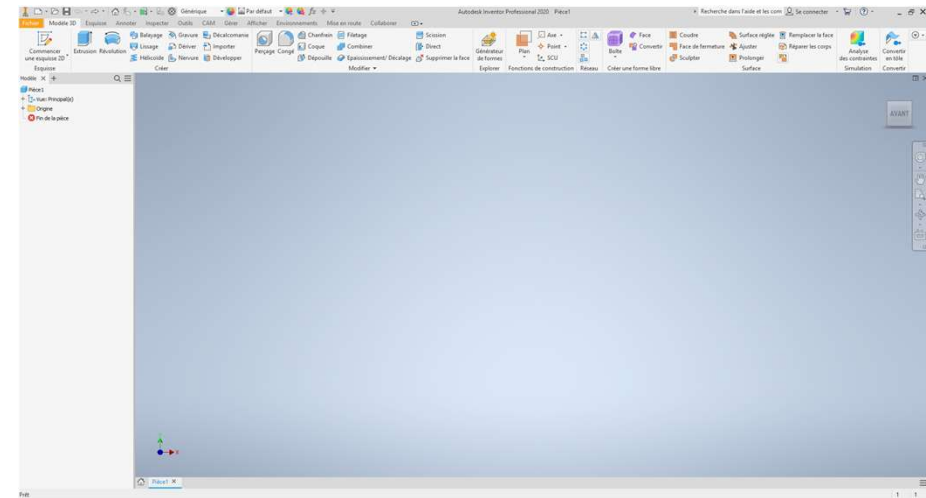


Tutorial

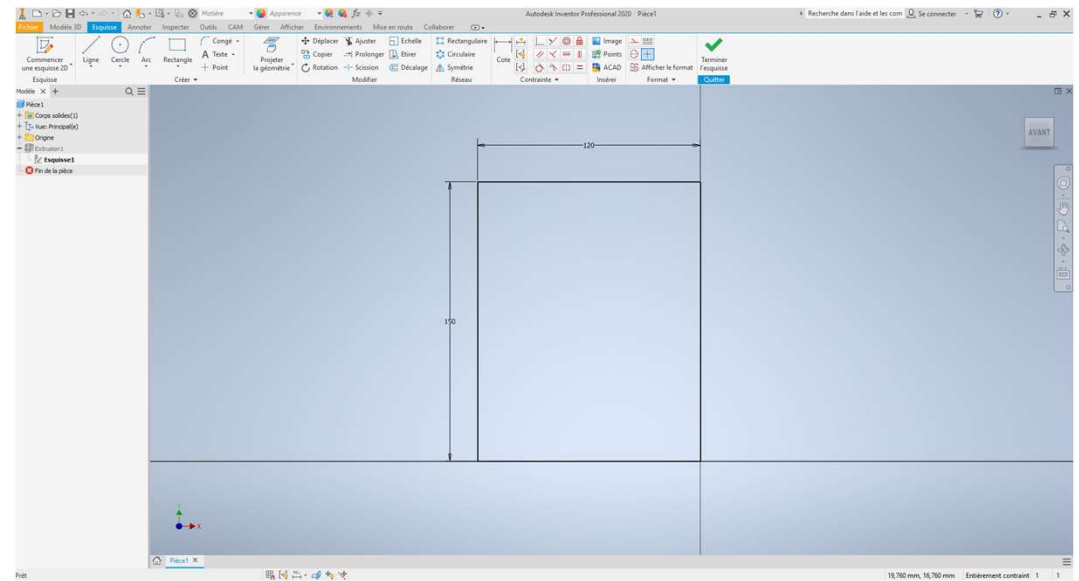
Matthias
Toulot

To start click on “nouveau”,
choose “pièce”.
Then click on "nouvelle
esquisse" and choose the XY
plane as shown in the image
below



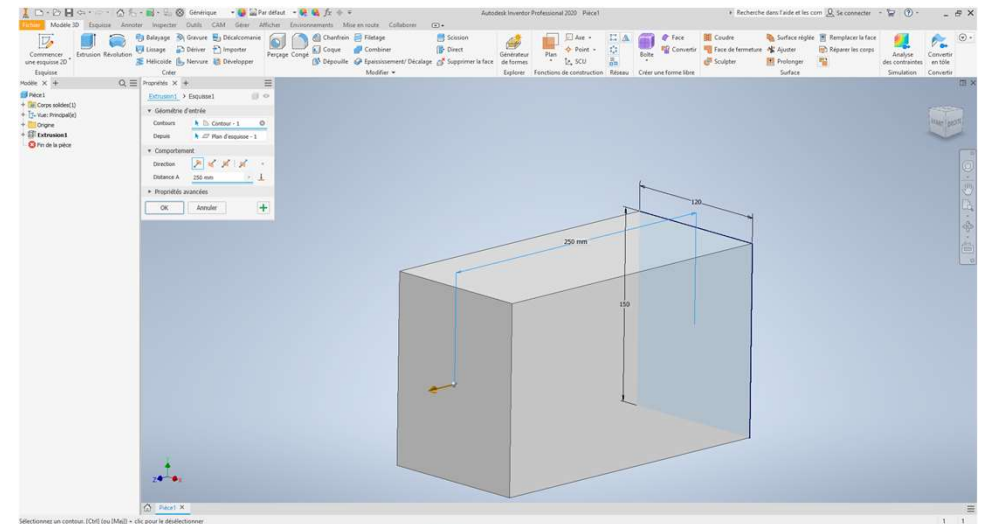
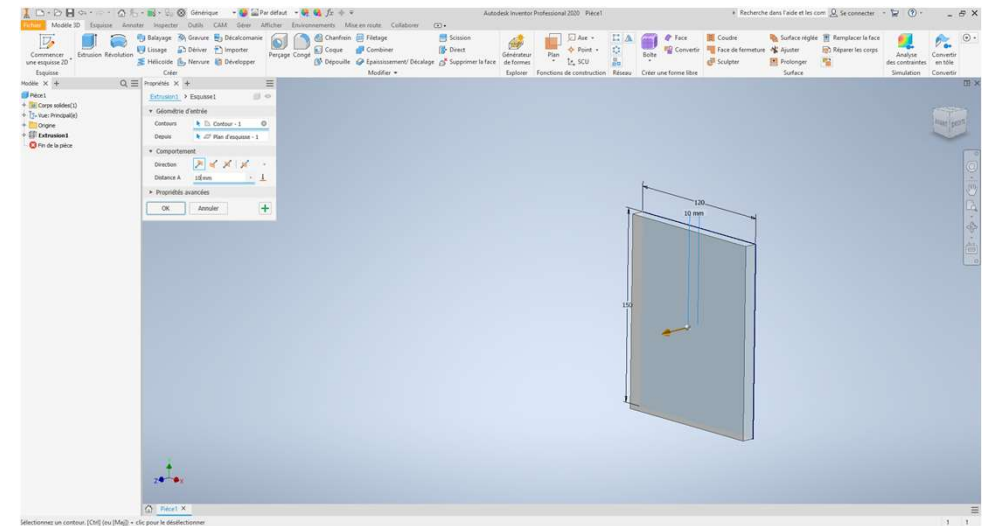
Take the rectangle tool and make a rectangle of dimensions 150mm by 120mm starting from the middle point.

Finally click on “terminer esquisse” in the top right corner.

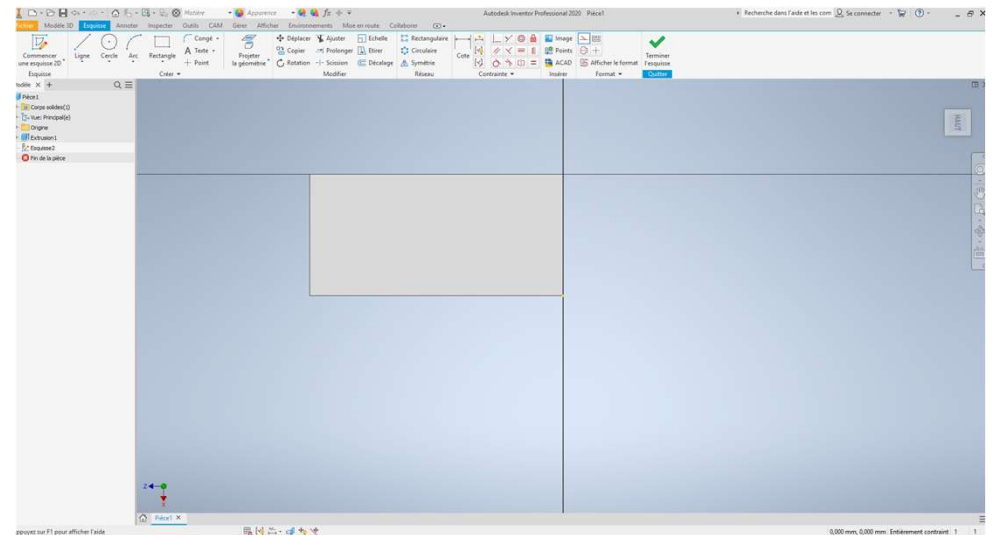
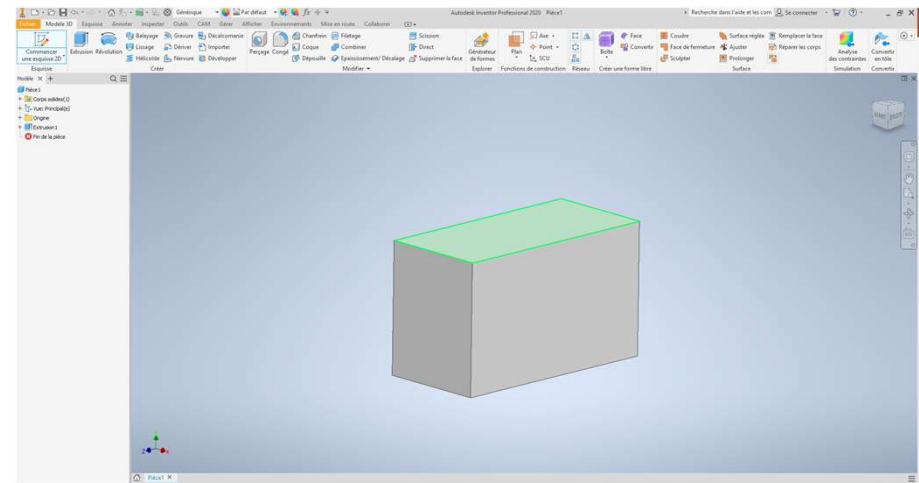


Choose "3d model" from the top bar and select the "extrusion" tool. Then click on the desired face and enter the dimension of 250mm .

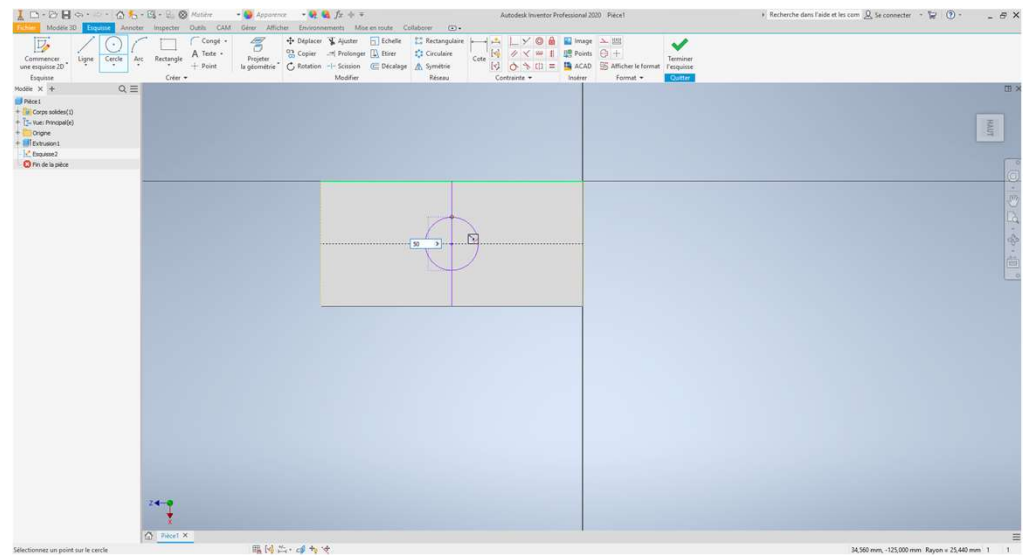
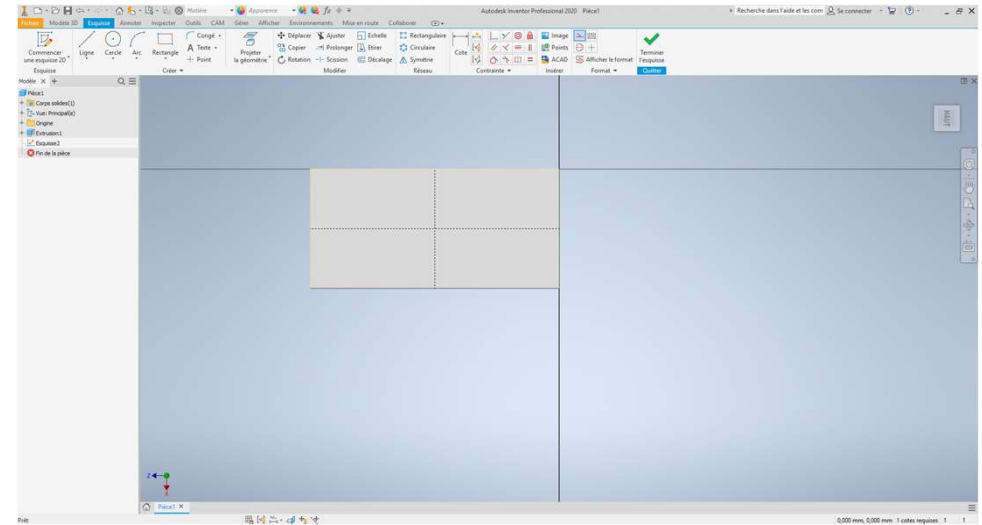
Finally click on "validate" and the part will be modified by itself.



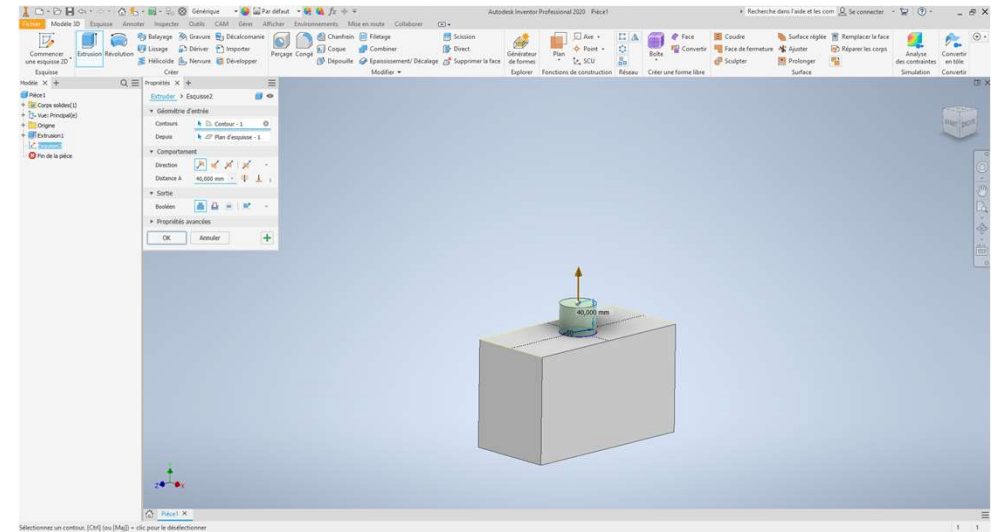
Now that we have our base we need to start the "new sketch" process again, so click on new sketch and choose the face we want to make it on (top face).



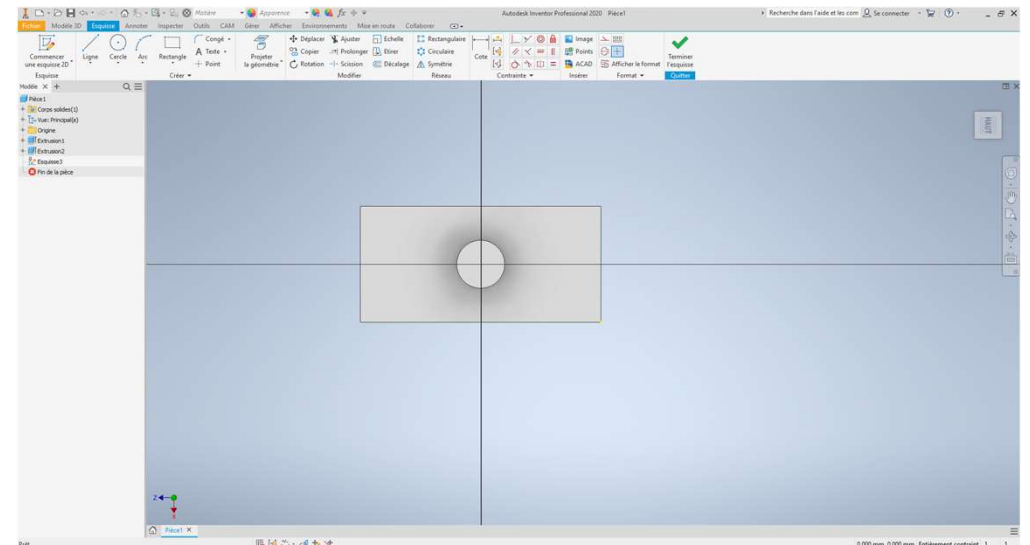
Take the "construction" tool to make the two lines that will give us the centre point of our piece. Then once we have found our center point we need to make a circle of size 50mm.



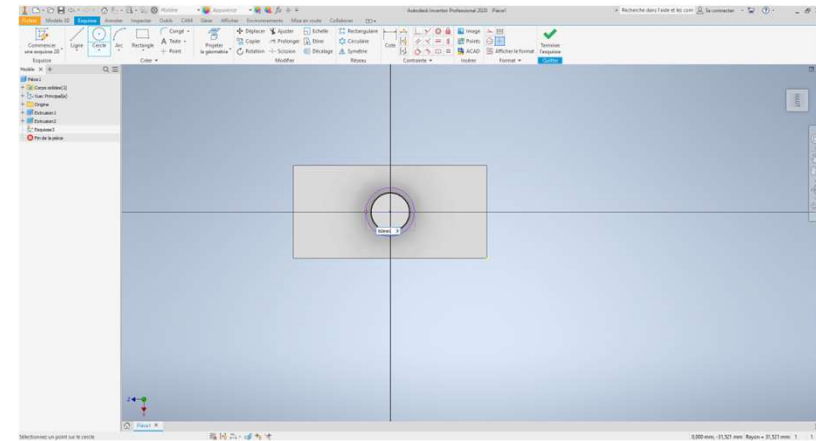
Now take the "extrusion" tool and enter the dimension of 40mm.



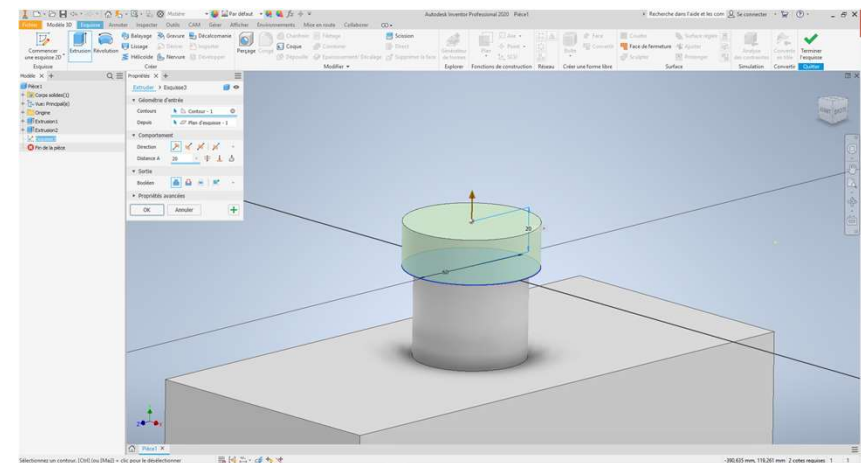
On top of this face create a new sketch.



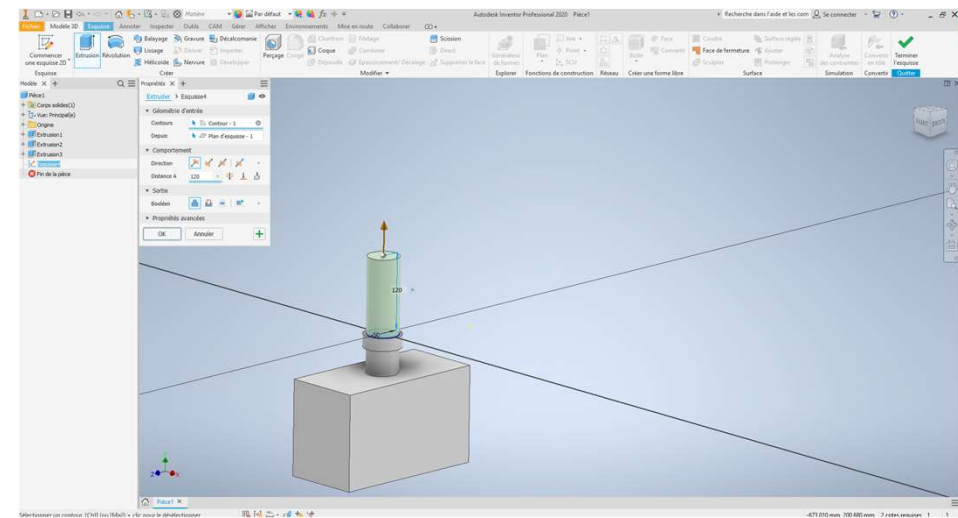
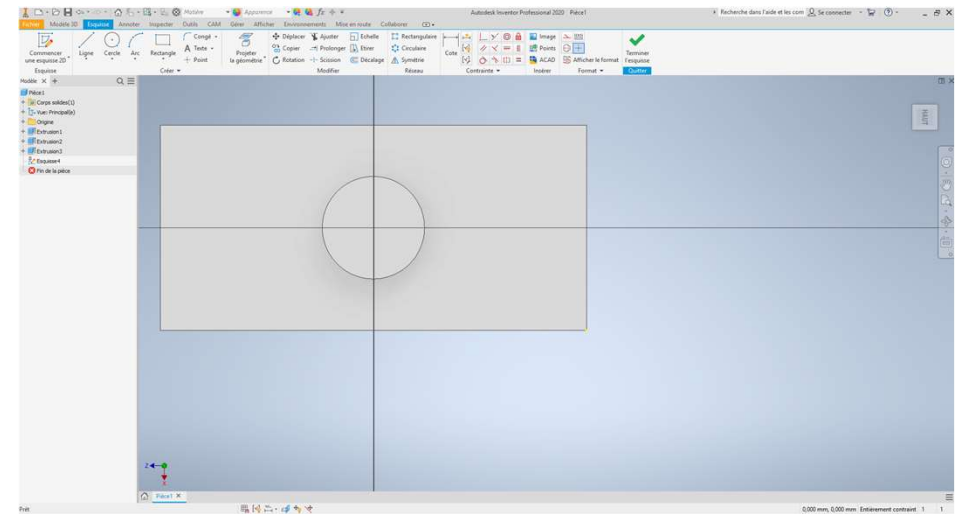
On this new sketch make a circle of 60mm diameter.



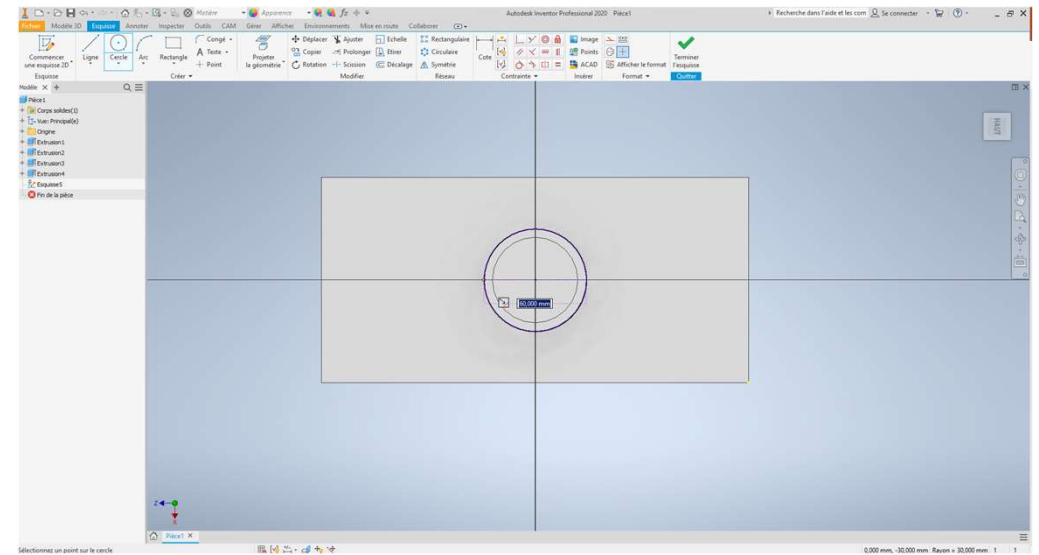
And finally make a 20mm extrusion.



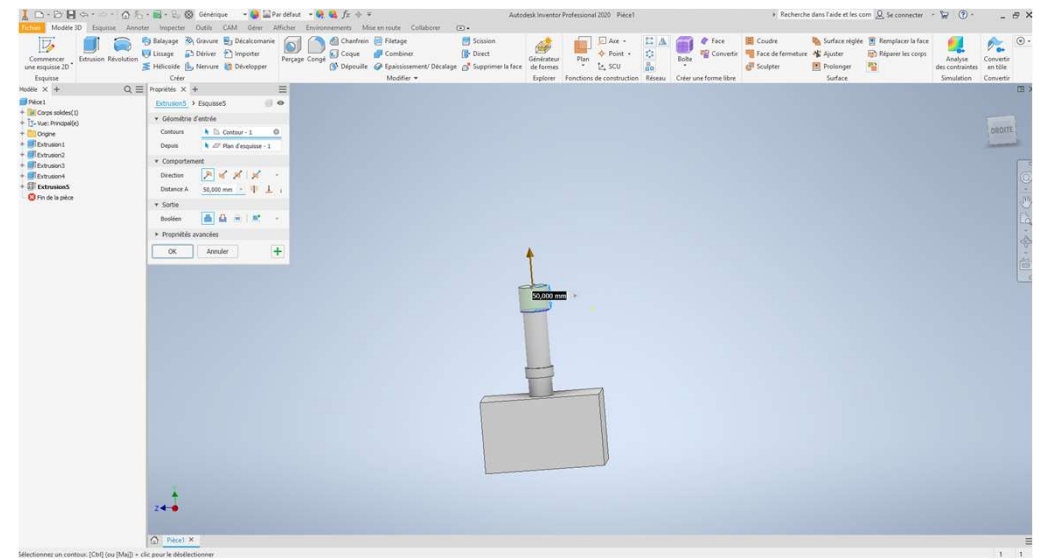
Recreate an sketch on the top face and this time make a 120mm extrusion.



Recreate a sketch on the top side and make a 60 mm diameter circle.

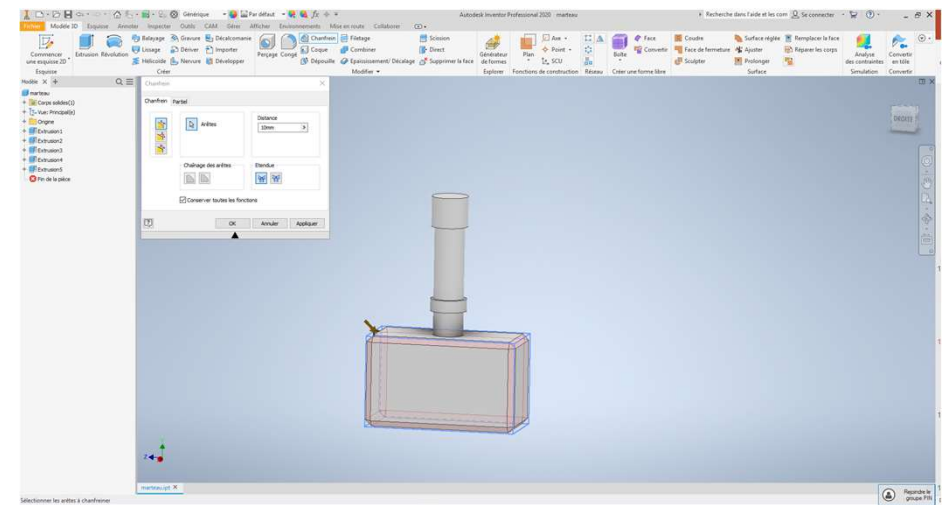
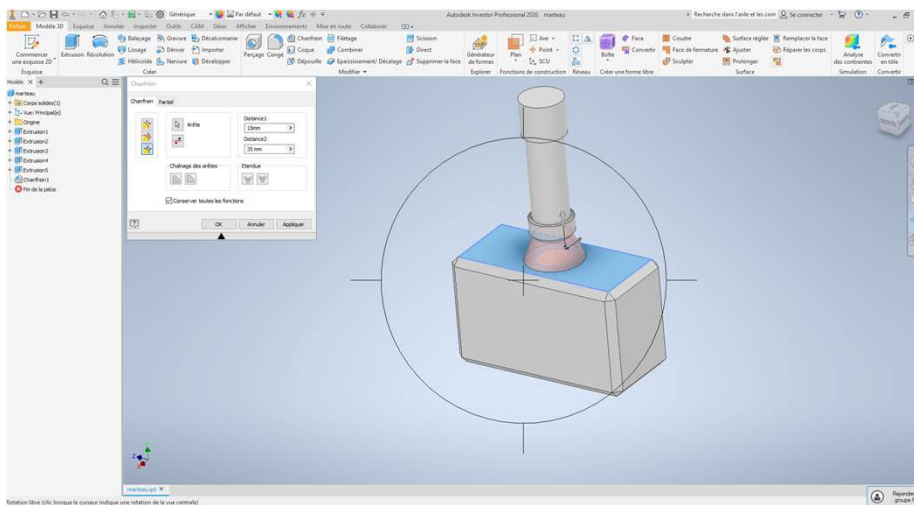
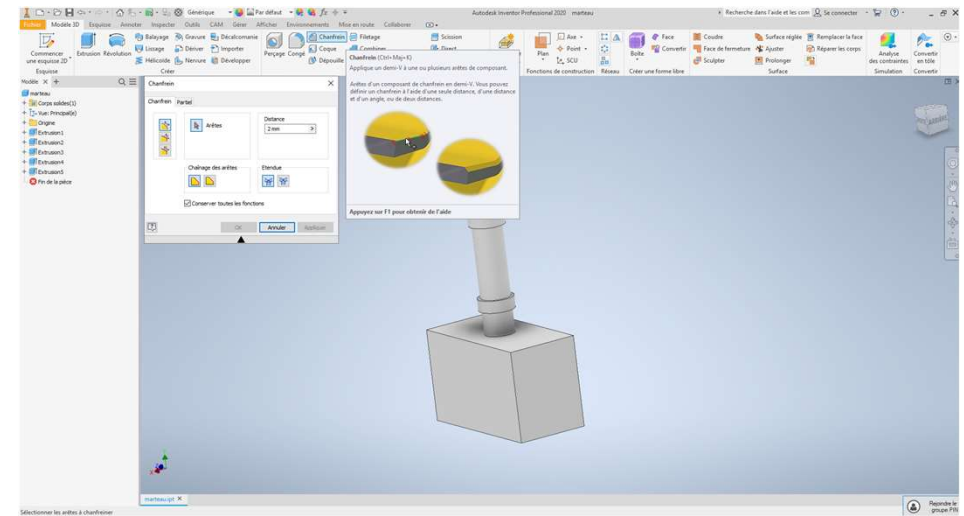


Recreate a 50mm extrusion.

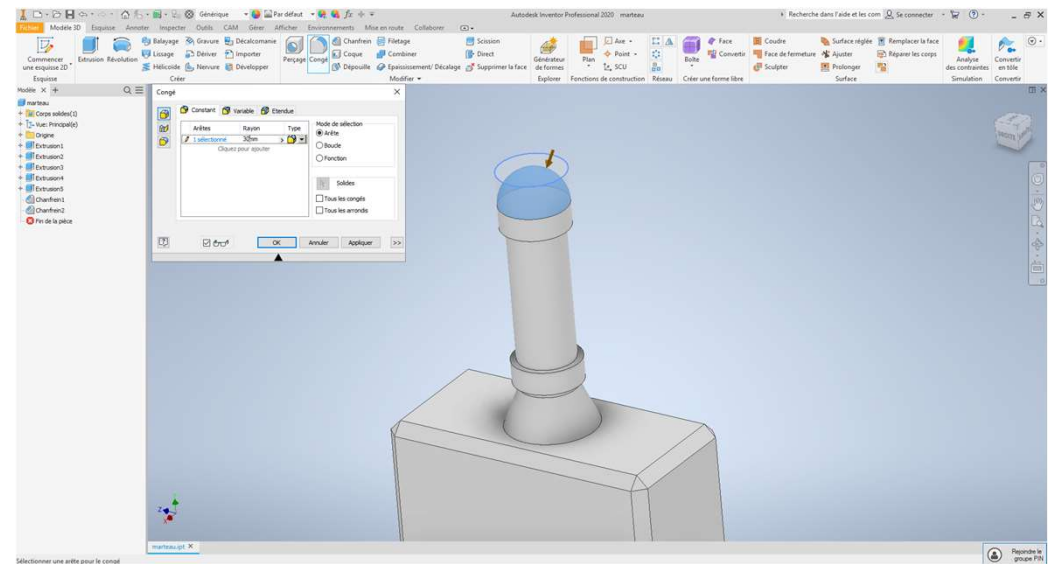


Take the "chamfer" tool and make chamfers on the edges shown in the image.

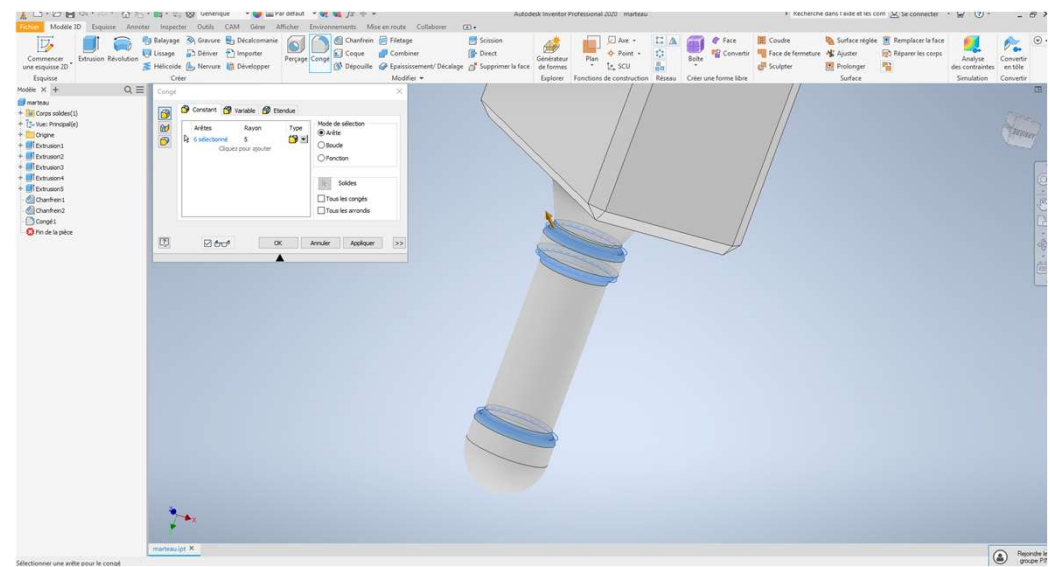
It is necessary to make a 15mm by 35mm chamfer on the arrete which is selected on the image below



Make a 30mm rounding
on the top edge.



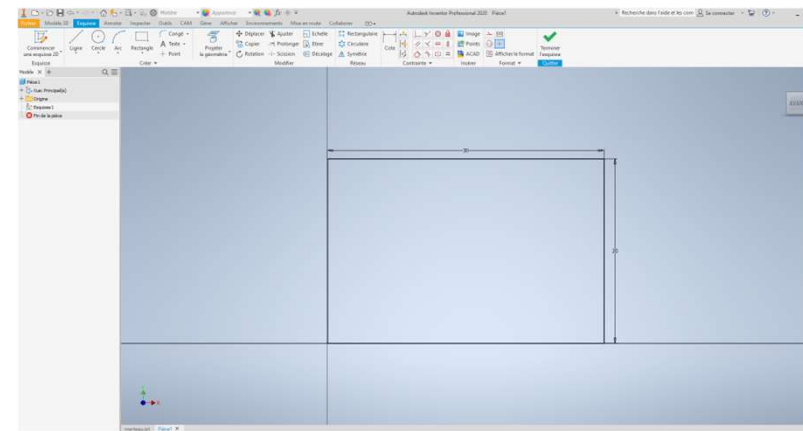
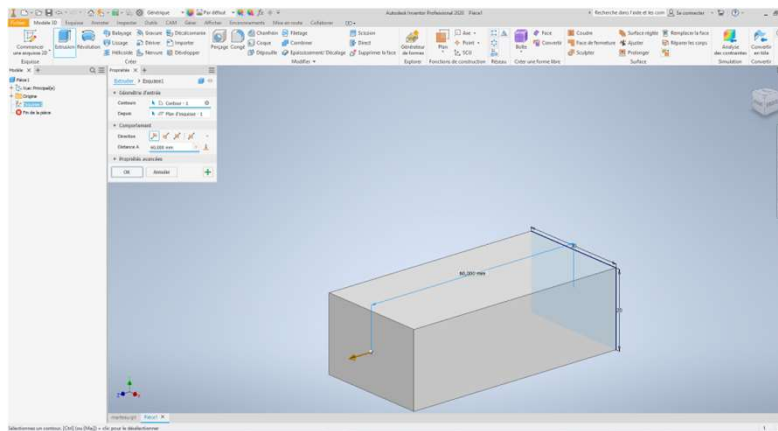
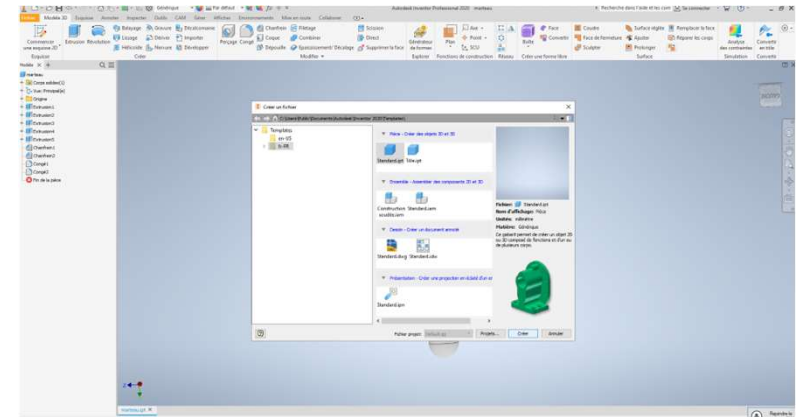
This time you have to do the
rounding, so take the "rounding"
tool and select all the edges.

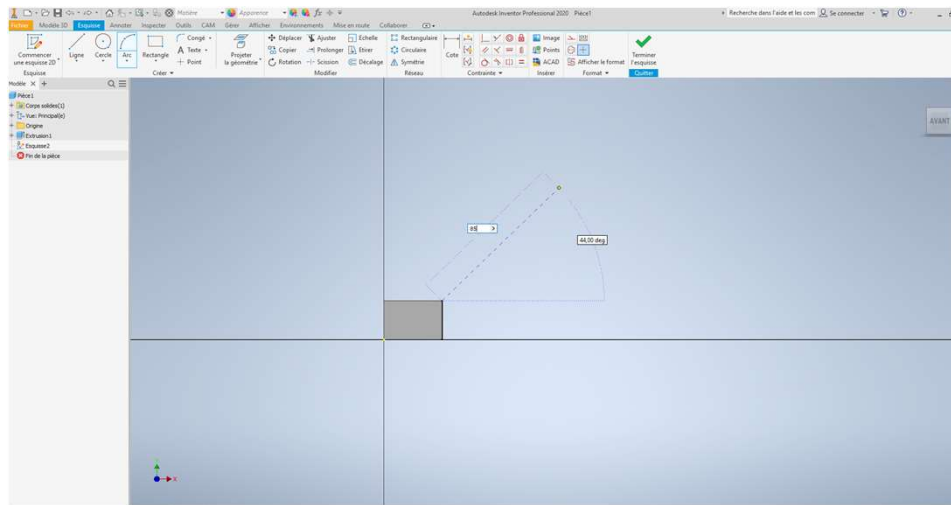


Strap construction

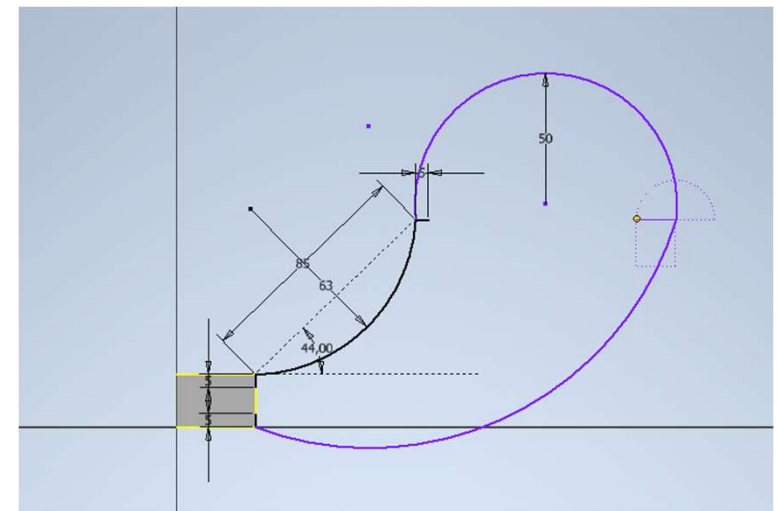
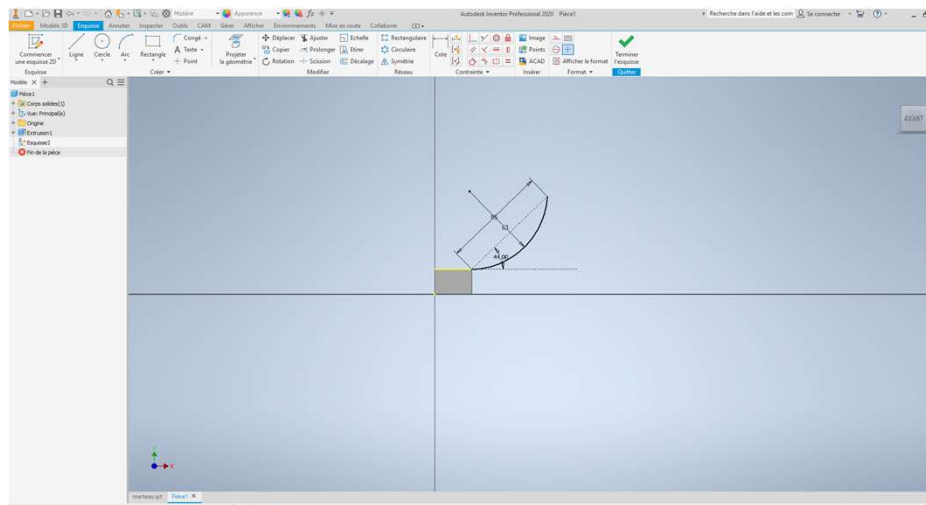


At this stage of the construction a new room must be created. Then start a new sketch, take the "rectangle" tool and make a 30mm by 20mm rectangle. Finally take the "extrusion" tool and extrude 60mm.

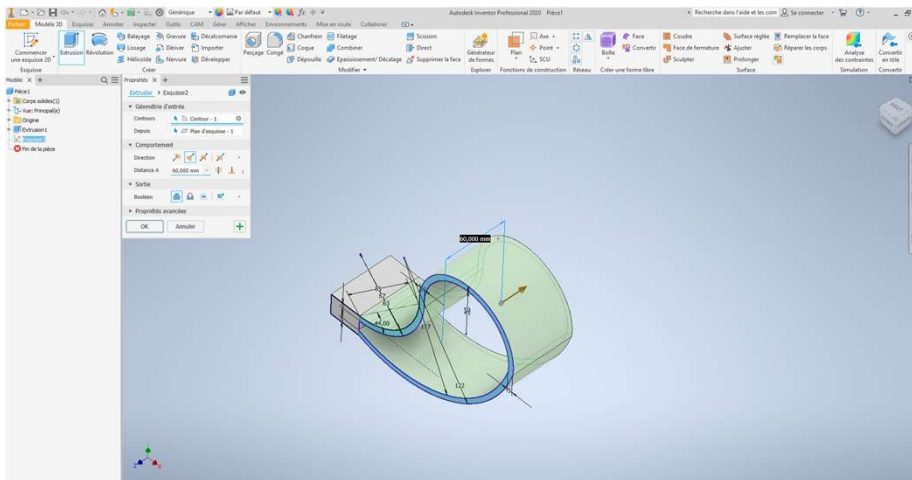
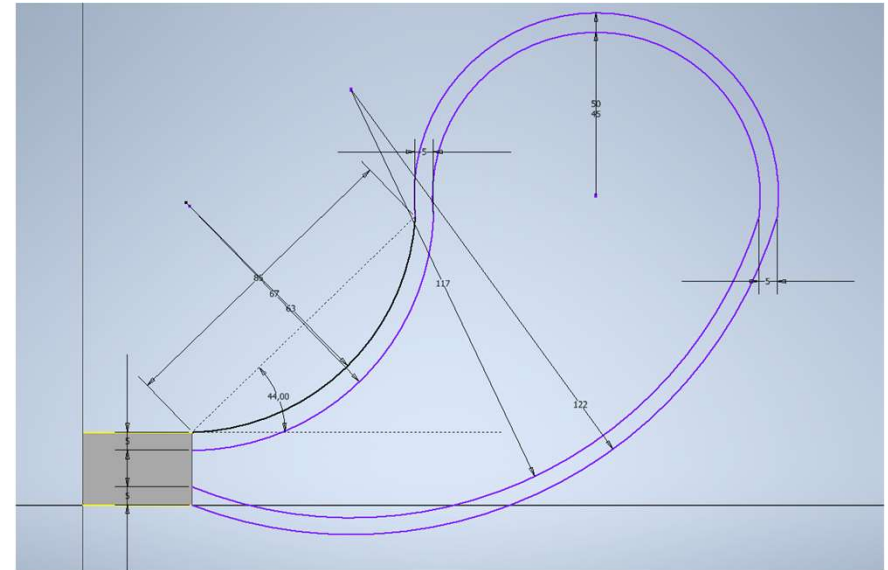




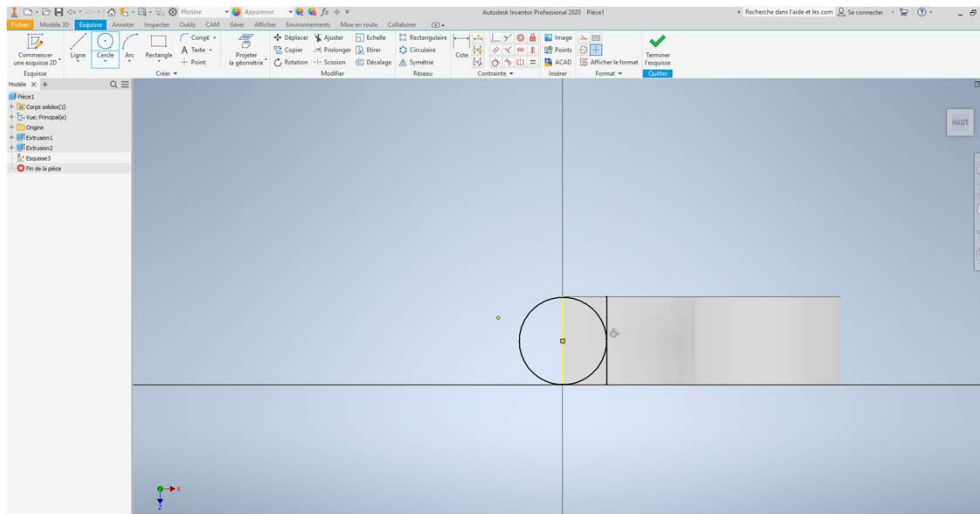
Again you need to make a new sketch and use the "arc" tool to make the shape as shown in the image opposite.



Using the “décalage” tool, shift this shape 5mm inwards.

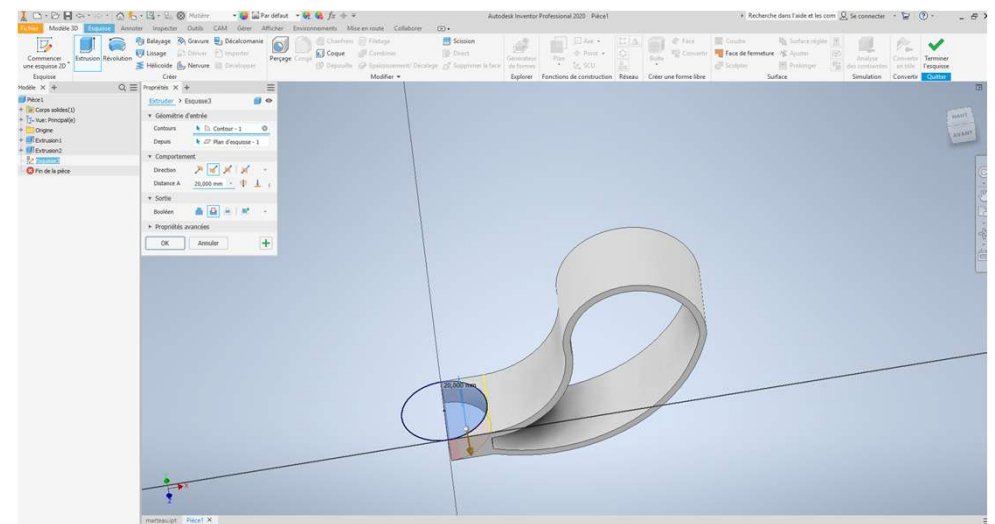


Then make a 60mm extrusion of this shape.

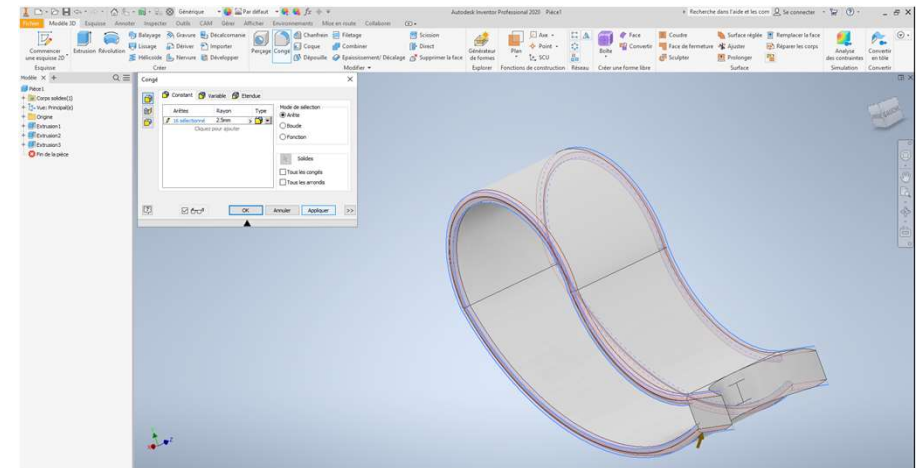


For this step you have to make a sketch and make a circle from the middle.

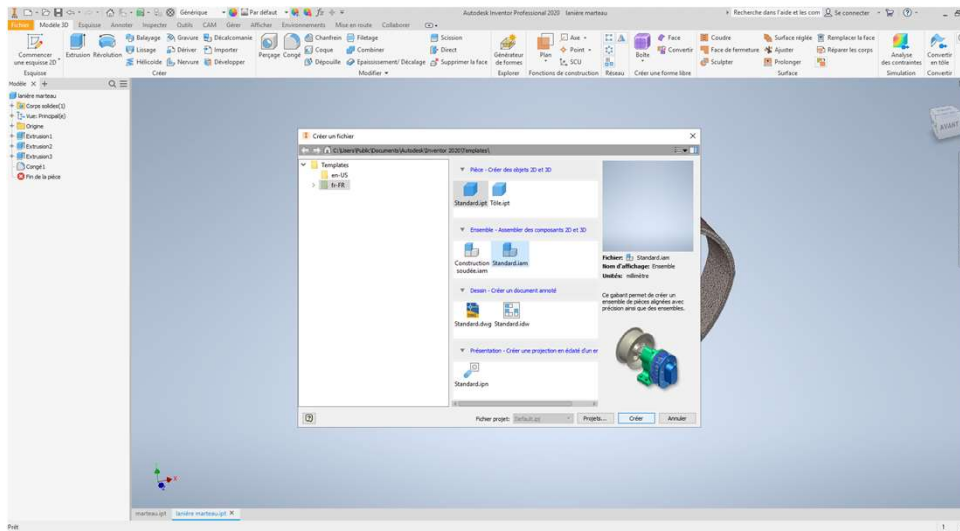
And to finish this step you have to do an extrusion but in the other direction because you have to remove the material.



In this part you have to round off all the edges of the piece.

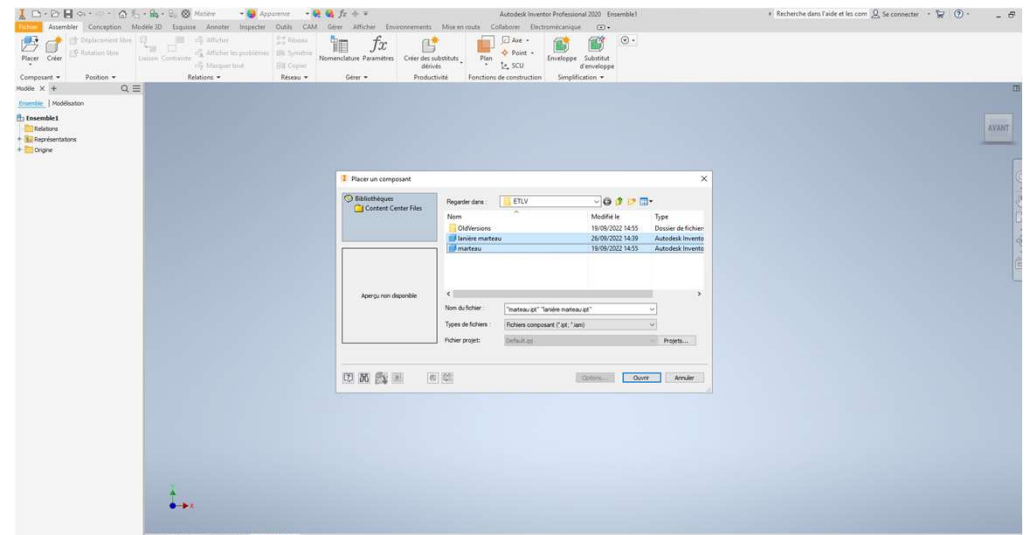


To finish the détails you have to select the whole room and bake the material.

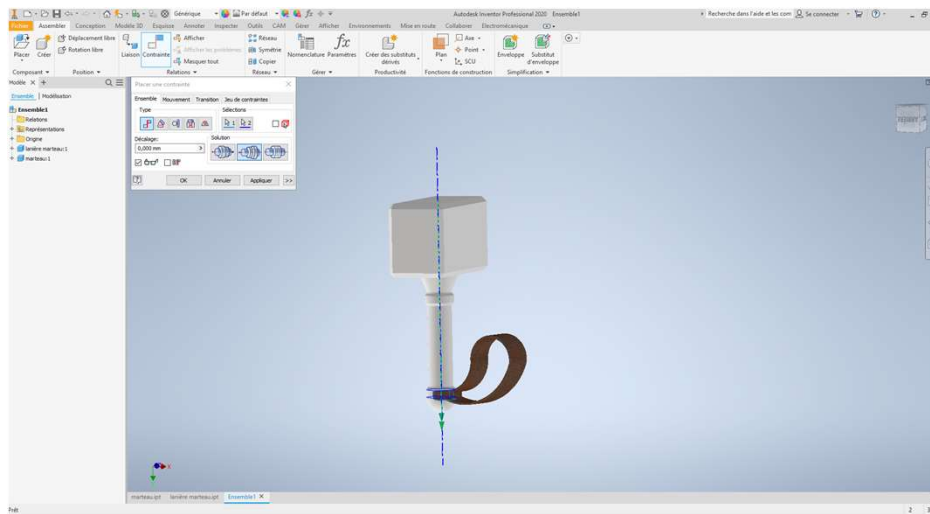
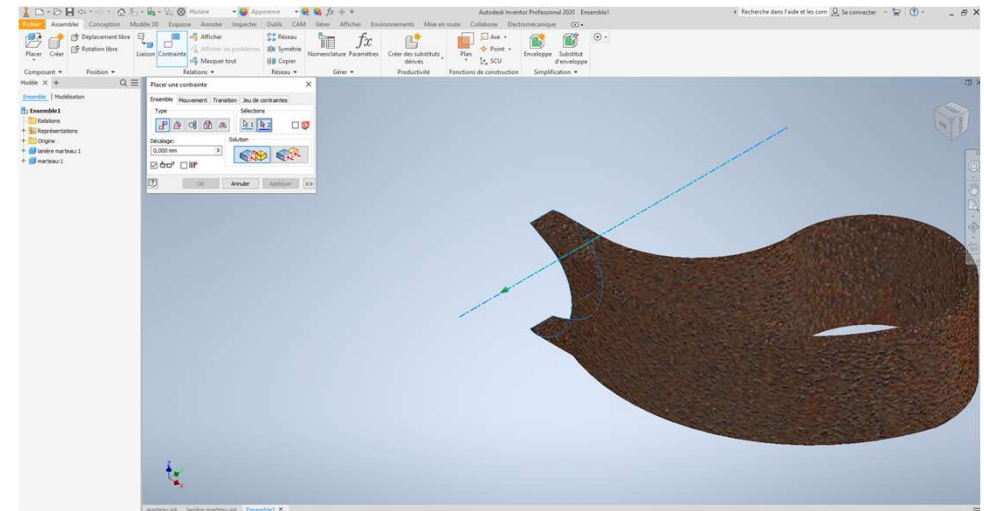


To finish completely, you have to create an assembly with these two pieces.

Once in assembly click on place and choose our two pieces.



To do the assembly you have to use the "constraint" tool and take the two axes and click on ok so that they stick together automatically.



Finally, here is the piece we are supposed to have at the very end.

