Session 6

Simplification of the robotic arm:

On the first structure of my arm I encountered some real problems:

- Printing: the size of the structure did not correspond to the size of the bed of the printer I tried to cut the model in two but the rendering was unusable.
- The locations provided for the servomotors did not allow their movement, (they were encapsulated inside the arm.

So the architecture of my robotic arm will be simplified as follows, now allowing only 5 degrees of freedom.

- The base keeps the same shape and principle of attachment on the ribs (holes), the hip will in turn be linked to the first servomotor allowing 360° rotation

- The second servomotors connected to the first end of the arm for a 180° movement will hang on a support above the hip.

After re-modelling, the first impression fails (the base is as if not aligned), so I relaunch a 4-hour impression.

Meanwhile, after aiming the wooden plates on the disassembled chassis, the thickness of the plate made that the pairs of tracks rubbed on the plate, moreover the DC motors could not be fixed directly on the lower plate it was necessary to provide a straight aluminum plate linked directly to the wood would hang the DC motor. In other words, reproduce the disassembled mechanism. We therefore decided to reassemble the old chassis (spot made by Mr. Masson).

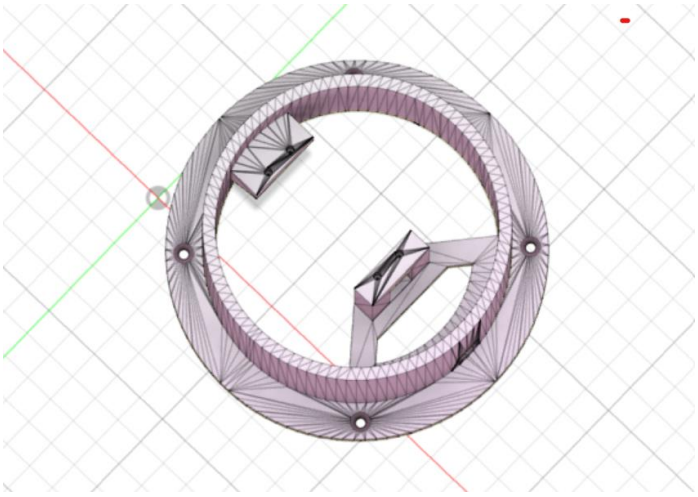

Fig 1 : Base.3mf

fig2 : first printing

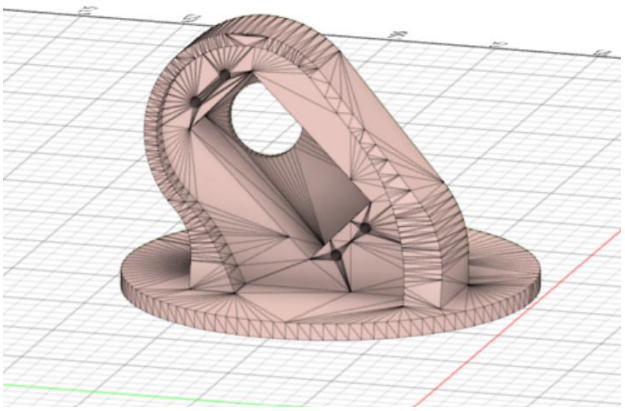

Fig3 : the waist