

Session 18

Previously the Bluetooth connection was established, following a discussion with my project partner we resolved not to use it. The code being on the Arduino, it will suffice for an RX-TX communication to control the arm and the frame at the same time with the Jetson Nano.

I started the session by fixing the base of the arm to the frame. Then we painted the door and installed the wrist after that came the step to recover the coordinates of the handle in order to inject it to the code and be able to direct the clamp towards this one, it will then be necessary to make an image analysis in order to recover it.

I started by installing python and looking for the basic operating commands to manipulate it, the thing is that I've never used python before so it took a time. It installed without PIP so I was unable to download OpenCV.

After several attempts it still did not work even though the python path was present on the PowerShell.

After seeing install Pycharm and reinstall python by creating a direct path, I was able to download Opencv and Numpy to process my image and retrieve the coordinate.

By following a tutorial available on the site:

https://www.kongakura.fr/article/OpenCV_Python_Tutoriel#:~:text=How%20display%20a%20image%20with,and%20image%20%C3%A0%20display.

For now, I have been able to put my image in black and white in order to limit stray colors, and start thresholding my photo to draw the dials and keypoints.

We are already anticipating the fact that it will be necessary to convert the pixelated measurements into centimeters, we will solve this problem when the time comes.