Weekly Report

Week 10: 03/03/2025 – 07/03/2025

Mustafa TOPBAS

4A GPSE

Axel LEROY

4A GPSE

Cédric DA CRUZ

4A GPSE

Abigaïl BROCHARD

4A GPSE

Eloïse MESTRE

Project Tutor

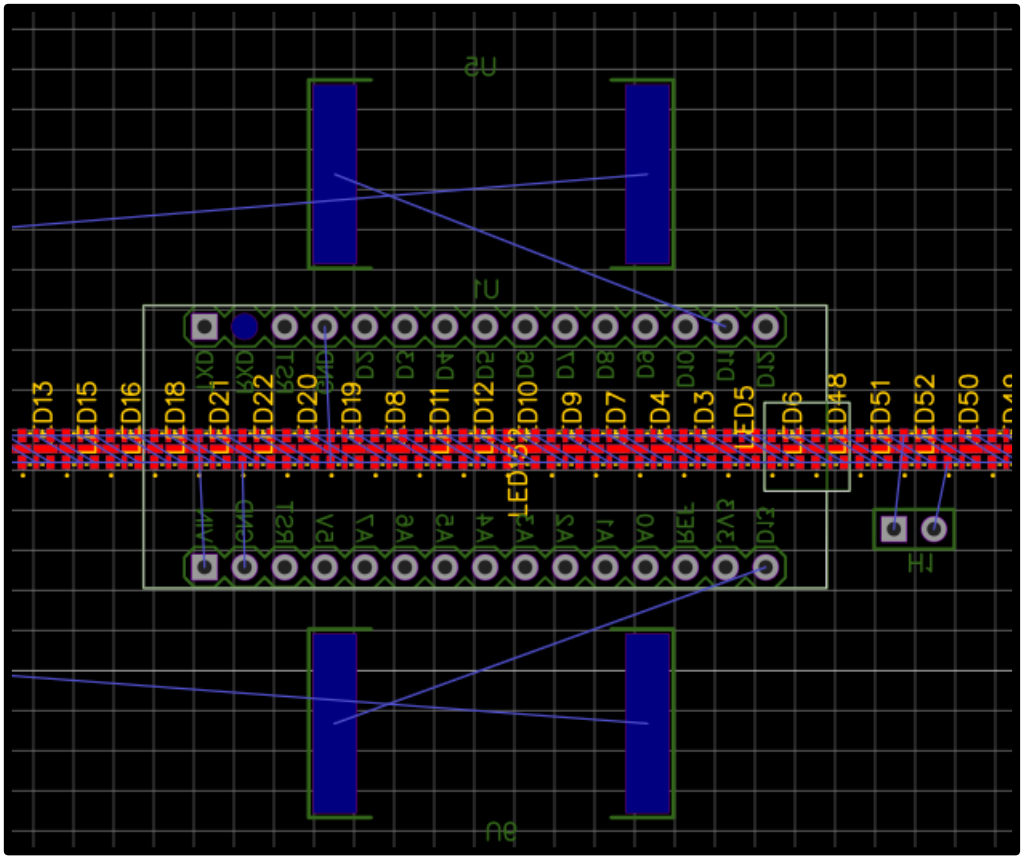
1-Mustafa

Number of hours spent on the project this week: 3.5 hours

Activity:

Monday [03/03/2025]: 3.5 hours

Today I started the PCB. I aligned the 150 LEDs which took me a lot of time. I now must make the connections considering the width of the tracks to support 4A.



2-Axel

Number of hours spent on the project this week: 3.5 hours

Activities: I had 1 activity this week.

First activity: 3h30

My activity was to try to make work the translation function. As it is not possible (or I haven't found the way yet) to make it work with the picture box, I tried to completely change the way I display the image. I tried displaying it in several ways: inside a button, inside a rectangle entity, … But I haven't managed to make the translation work with the previous functions.

3-Cédric

Number of hours spent on the project this week: 3.5 hours

Activity:

I did test on the replacement component we received. Since they aren't finished i'll finish them and insert the result and graph on the next weekly report

4-Abigail

Number of hours spent on the project this week: 3

Activity: Led and angular 3h

For this week, I asked Kamel for an angular sensor and some LEDs that could be the closest to the ones I wanted for the project, so I could start coding on them until I could buy the right materials.

The references for the LEDs are SK6812.

SK6812s are easier to connect and use fewer wires, but their synchronization is not as good, which can be a problem if your system is running at high speed.

- APA102s are much better for smooth, accurate display, thanks to their SPI protocol and high refresh rate.

I'll have to take that into account for the code so I don't have too much work to change the led afterwards.

For the angular sensor, the reference is the DR5013.

The DRV5013 is not a precise angular position sensor, it only detects whether a magnet is present or not. It won't give you a precise angle.

- The AS5600 is designed for angular measurement and is much more precise.

It's going to be more complicated to code because it's really not as good as my basic sensor and Kamel doesn't have anything better, so I'll have to find a solution quickly.