Weekly Report

Week 14: 31/03/2025 – 04/04/2025

Mustafa TOPBAS

4A GPSE

Axel LEROY

4A GPSE

Cédric DA CRUZ

4A GPSE

Abigaïl BROCHARD

4A GPSE

Eloïse MESTRE

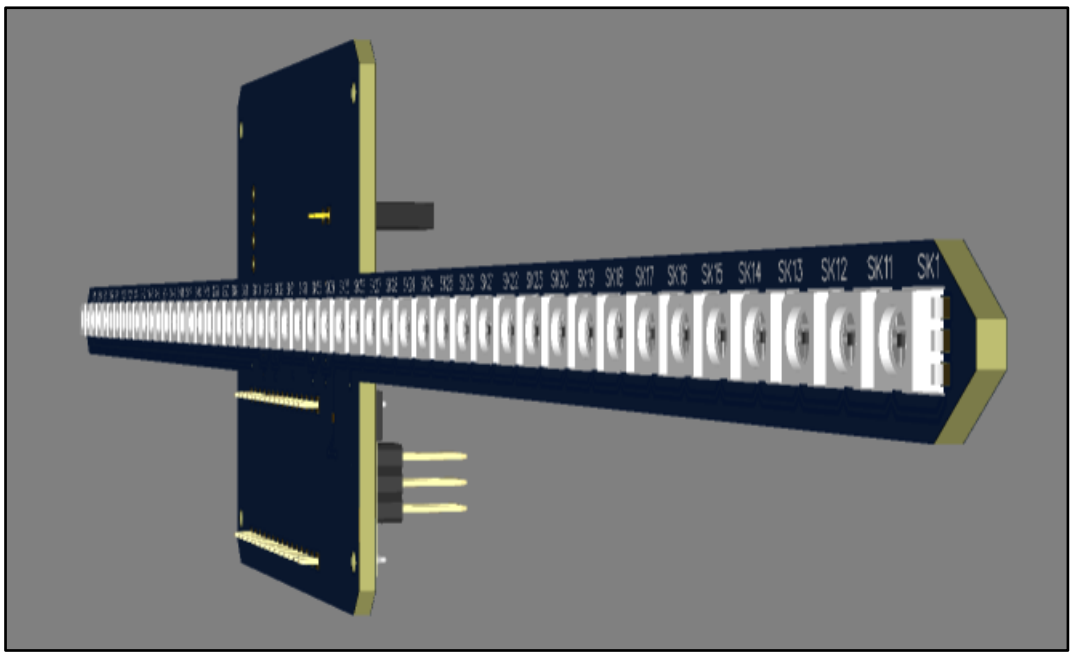
Project Tutor

1-Mustafa

Number of hours spent on the project this week: 4 hours

Activity:

I finished all the PCB connections by correcting the last things that were wrong. I added a ground plane to finish. I then ordered the PCB from a subcontractor site. The PCB will arrive during the holidays, I couldn't do it at Polytech because of the technical limitations of the equipment. Once the PCB is received, we will have to solder the LEDs but it will be hard in terms of time.



3D view of the finished PCB

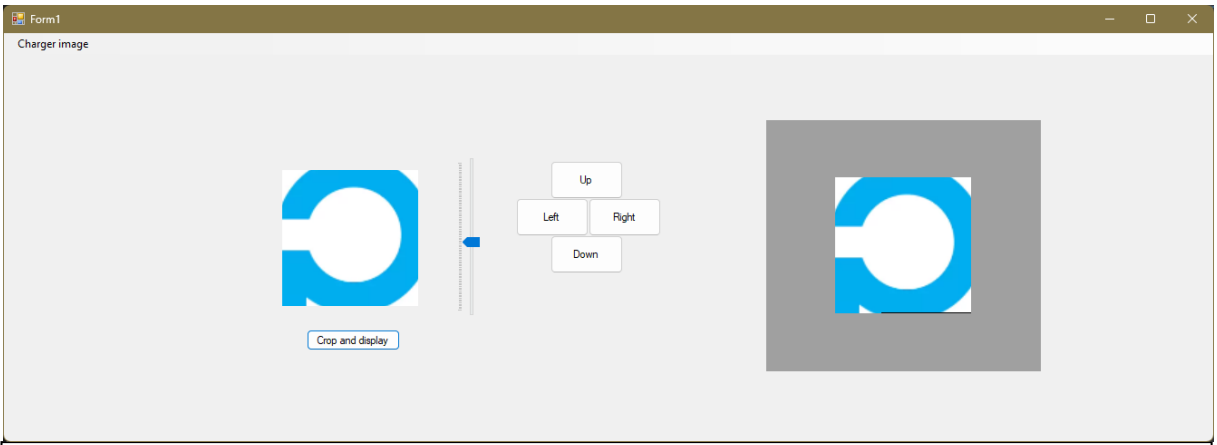
2-Axel

Number of hours spent on the project this week: 3h

Activity:

This week, I implemented the part of the code that gets the RGB data from an image in the cropping part. To do so, I had to modify the way I previously got the RGB data and changed the *lockbit* function. I previously used it on one line and looped it with a *for* loop, changing the line each time. This way took too much time and sometimes bugged and kept looping for too long. To avoid these issues, I used the *lockbit* function not on a line, but on a rectangle. I now only had to put the size of the cropped image as the size of the rectangle and use the function only once at the origin of the image. To check that the code worked properly, I implemented the *unlockbit* function that can create an image from a byte array (of RGB data for example). I finally tried to display an image in a second and bigger picturebox, using the *unlockbit* function, to make sure that we could get all the data of the image and that the cropping part worked.

As we can see on the screenshot above, the only little issue we have is a black line at



Test of the cropping part and display using lockbit and unlockbit

the bottom of the image. This issue doesn't come from the change from line by line to rectangle in the use of *lockbit* as the entire line would be black. I haven't found yet why the

bottom line is partly blackened, but I am still searching for a solution. Overall, most of the image is displayed correctly so the next main activity I will have is to only display the image in a circle.

3-Cédric

Number of hours spent on the project this week: 4 hours

Activity:

We (Me and Abigaïl) finished the plan for the base and had our meeting with Ms Novello. We then started the cutting process (½ done). We'll finish the cutting next week and start building it up and fix the electronic components to it.

4-Abigaïl

Number of hours spent on the project this week: 4h

Activity :

The new LEDs and angular sensor arrived this week. We then spent the morning with Cédric at the FABLAB to finish the plans for the box and start cutting with Mrs Novello. We're meeting again on Wednesday to finish cutting and start fixing the elements.