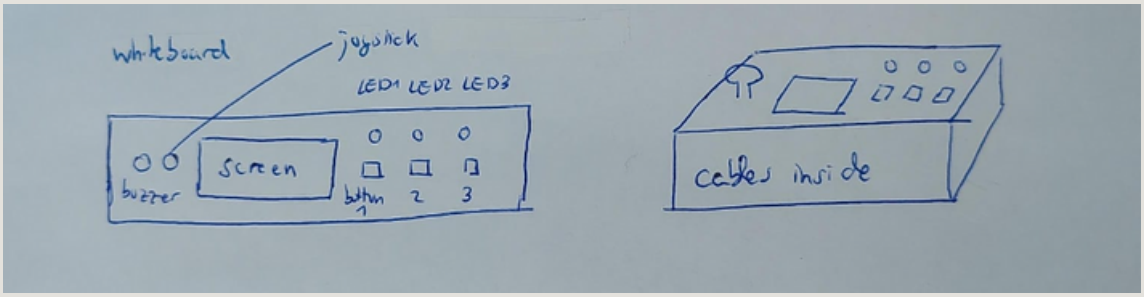
PROJECT PORTFOLIO

Redefining the wake up experience...

MUTED

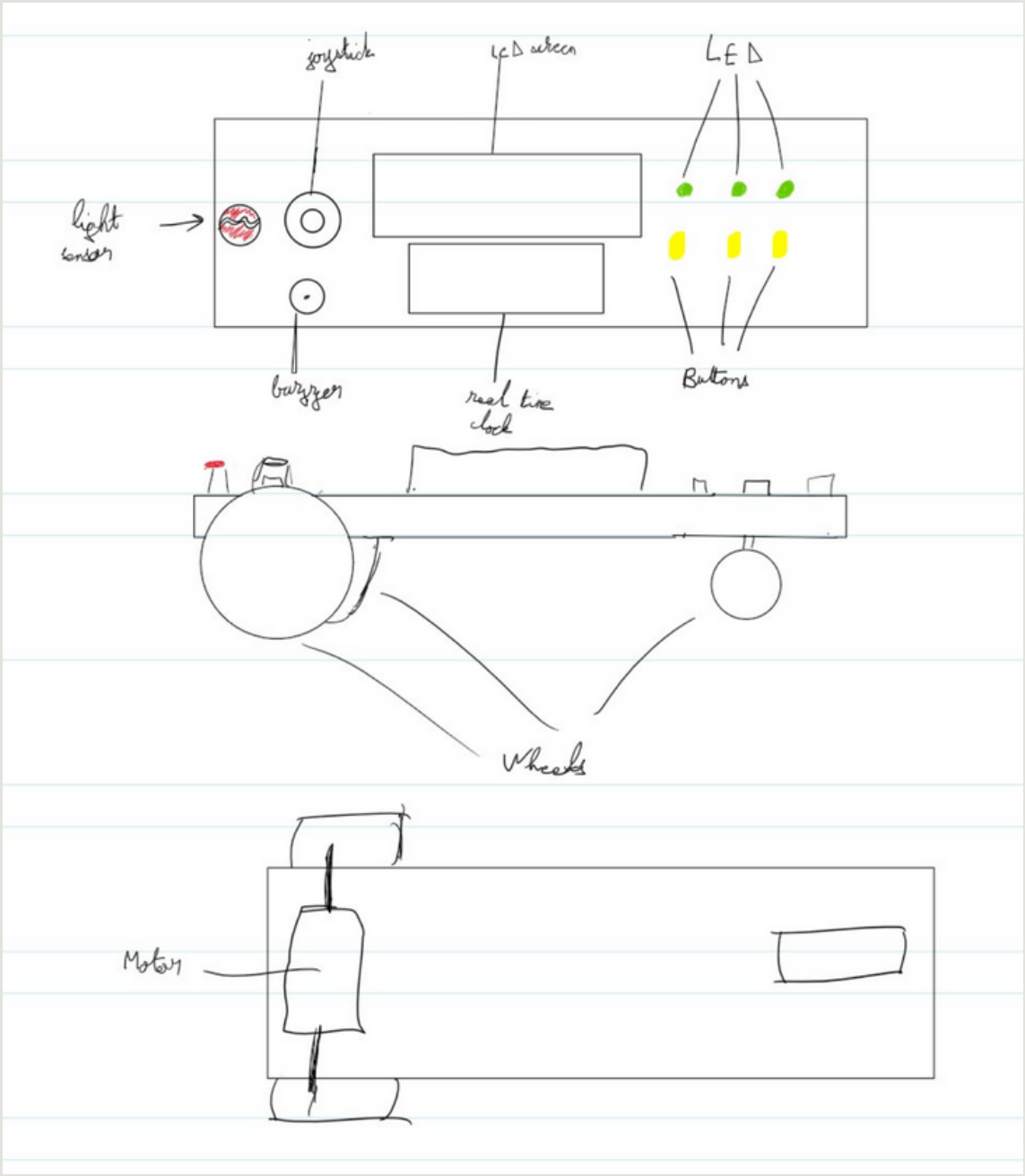
design process

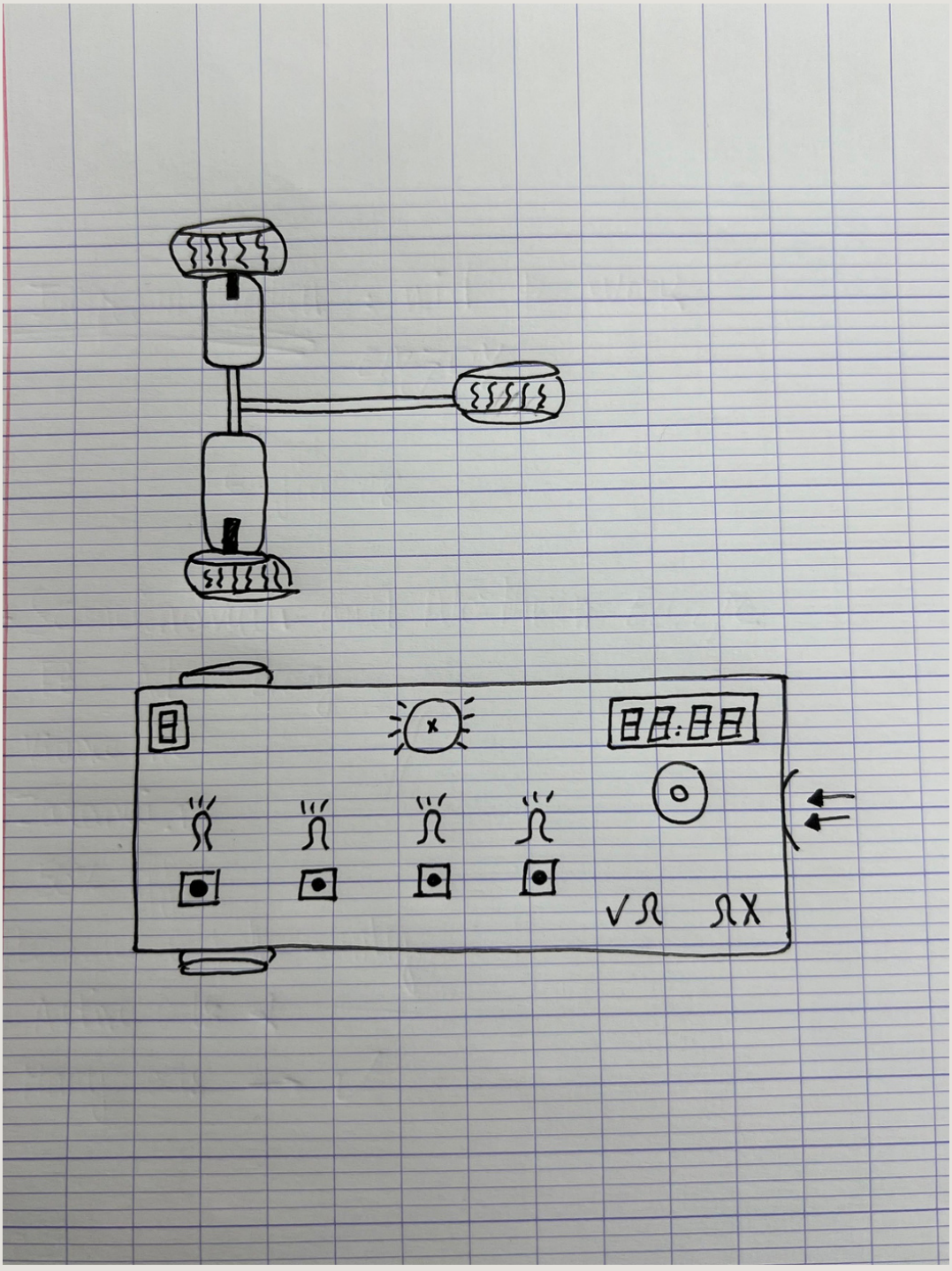
Each team member proposed a design



In the first sketch, we proposed a rectangular-box shaped robot. The breadboard would be inside a box, and the interactuve components would be displayed on the surface

In the second sketch, we keep the rectangular-box shape. Additionally, we add two wheels at the back, operated by one step motor in the middle that coordinates their rotation

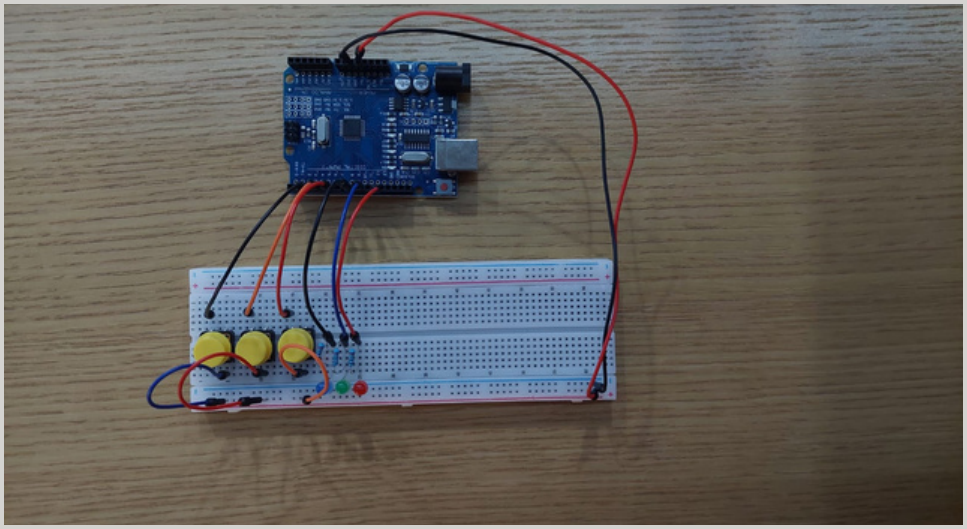


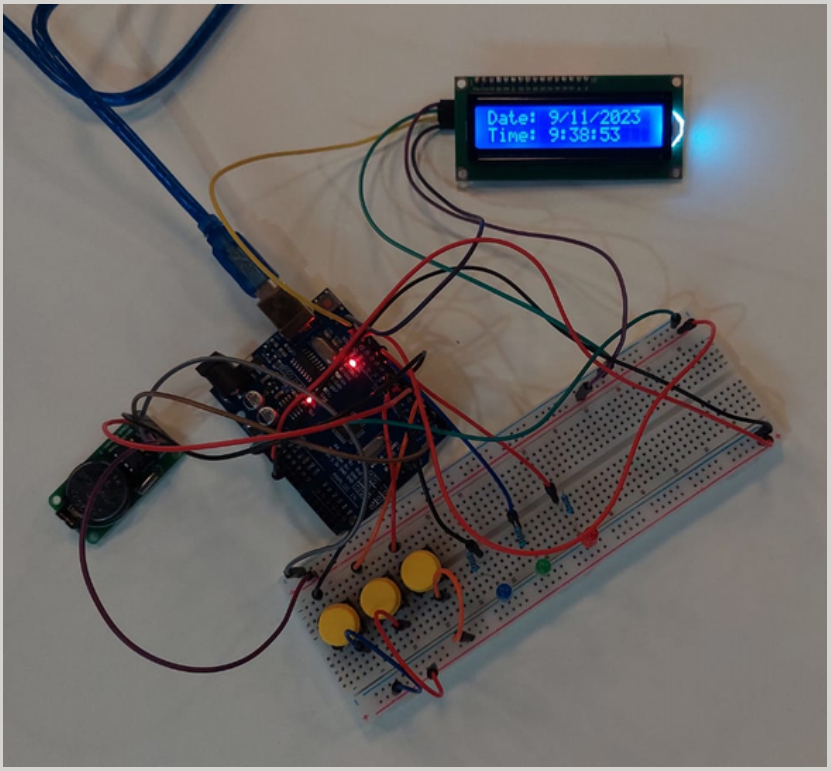


In the third sketch, we proposed a different distribution, adding a 7 segment LED screen. Moreover, two step motors would be used, one for each wheel

construction process

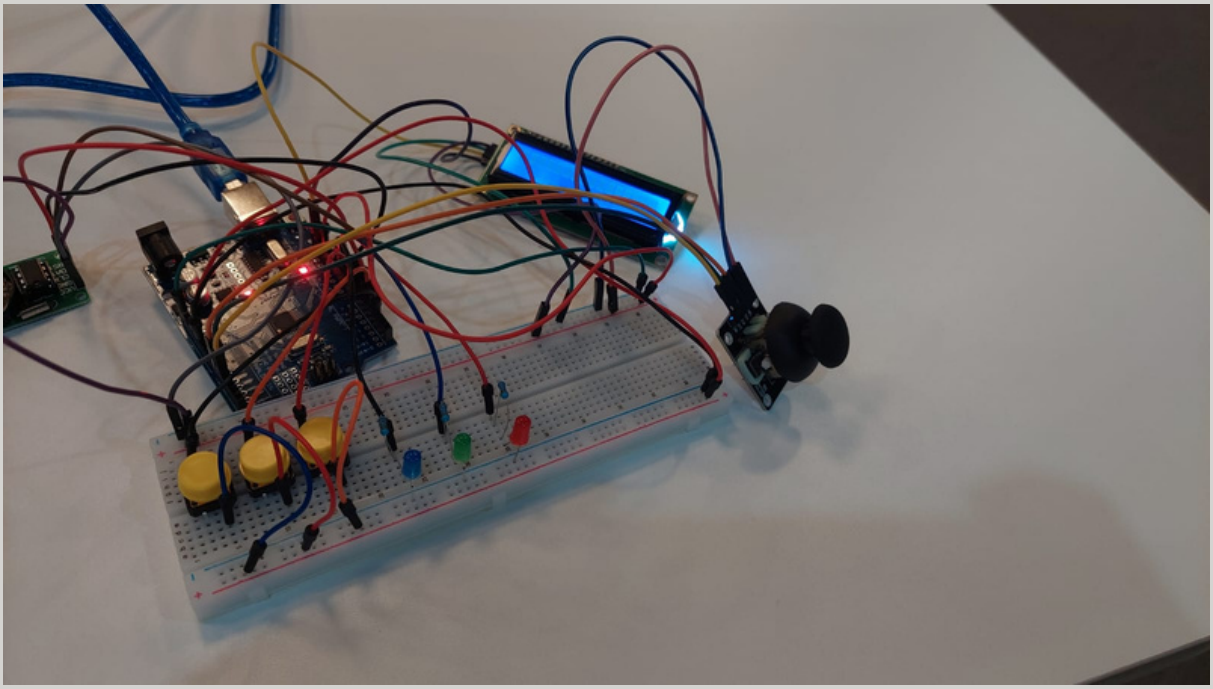
We start assembling all components together

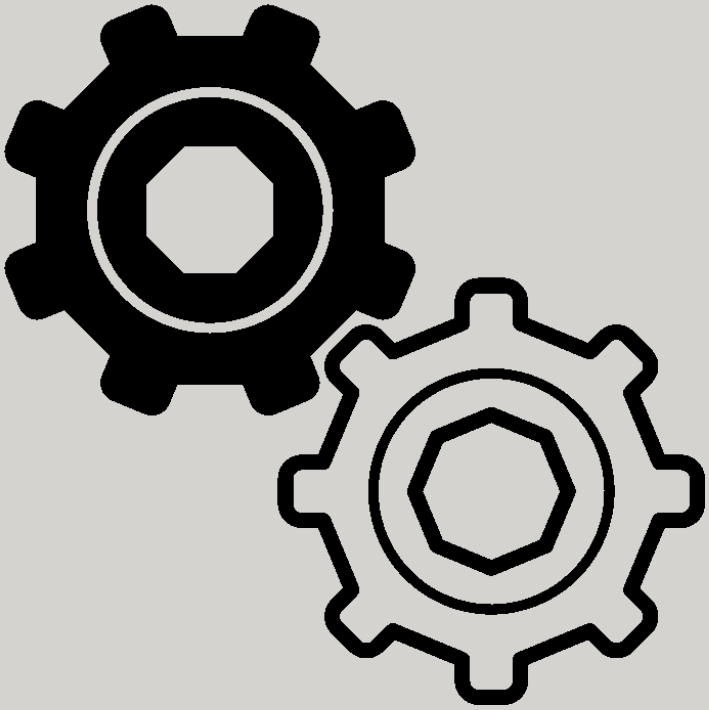


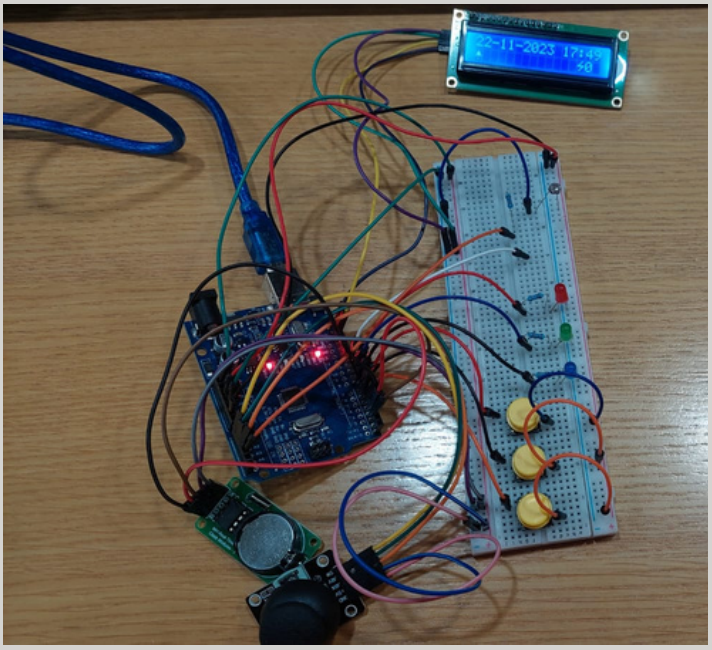


Up to this point, we have added the LEDs, the buttons, and the LCD screen

Next step was adding the joystick...



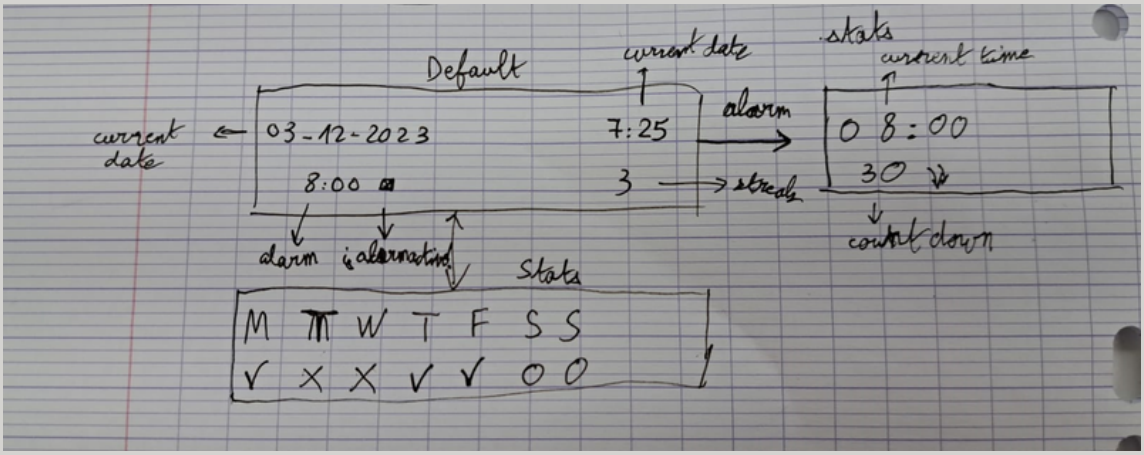




We continued by adding the RCT component

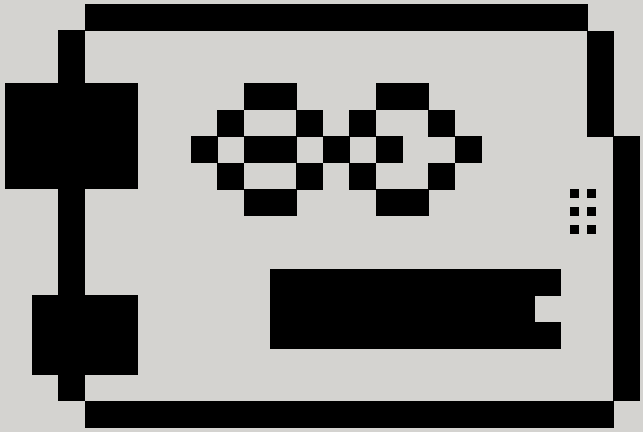
The alarm clock robot starts to take shape. The LCD screen displays the current date and time, but we still need to determine the elements that will be displayed

We decided the LCD will display three different screens



- Default screen
- Alarm screen
- Statistics screen

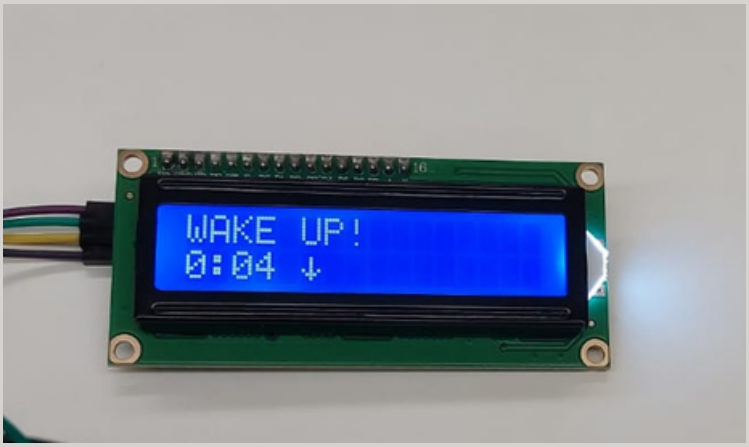
We start by programming them accordingly



default screen

Display current date, time, alarm set, and streak

alarm screen



Add countdown to the LCD display

statistics screen

The LCD screen displays the statistics recorded in a week

final design process

Once all components are set, we finalize the robot design

We decided to keep the box shape and put all elements inside. Moreover, we cut holes to see the LEDs and LCD screen, as well as to interact with the joystick

Users will interact with the buttons by pressing on some straws

By joining everything together, we complete the design

team members

Laura Rodríguez López

Ryan Jabbour

Maxime Hanus

CSE4055