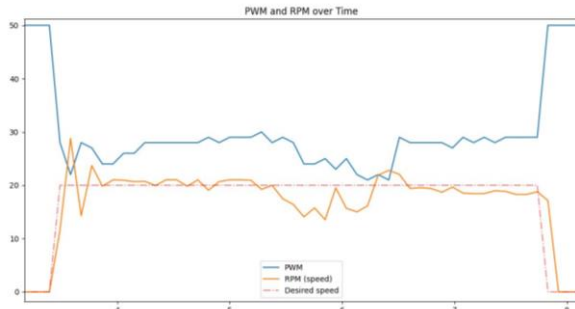
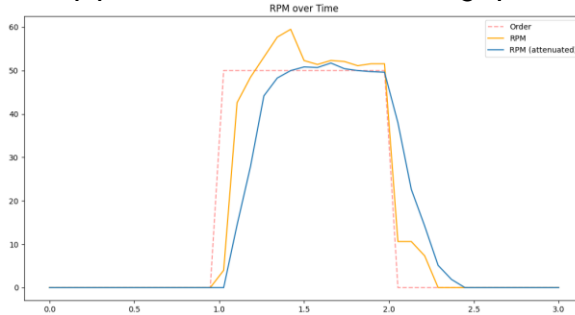


For automatic enthusiasts!

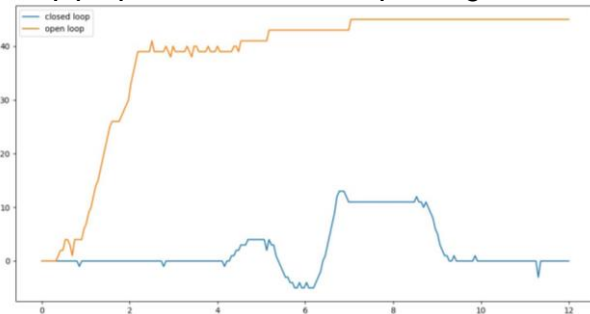
(1) Control loop of the backward motion



(2) Correction of the wheels grip



(3) Open and closed loop straight line



*Project supervised by
Y. Ariba and D. Lebotlan*

From October 2023
to January 2024



Tools



<https://github.com/ErAzZeD/TrailerMate>

TrailerMate

The best ally for truck drivers



Presented by Jason Team

Abdessamad Amadar
Maurie Bernard
Sarah Bobillot
Emilie Fraumar
Killian Gonet
Réda Kharoubi
Antonin Laborde-Tastet

3,2,1...GO!



Raymond

Step 2: Obstacle detection

With the **ultrasound sensors**, the trailer stops 20 cm before hitting an obstacle.

Step 4: Wheel improvement

Wheels' adherence and steering control loop are improved.

Figure 2



Step 6: Record and replay



An open loop sequence of movements is **recorded and stored**. It can then be replayed at any time.

Step 1: Android application



You can see the state of the different sensors via the **Android application**. You also can communicate with the car by clicking on the button.



Step 3: Autonomous forward and backward movement



A **control loop implementation** allows to move forward or backward at a desired speed despite of perturbations.

Figure 1

Step 5: Reverse straight line

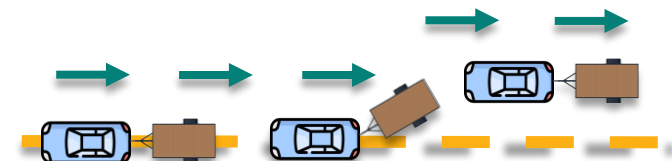


Figure 3

