Project defence - AutoPylot

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1 Introduction

An overall look at our project.
Project : An autonomous vehicle.
Objective : Make an autonomous car which can race on a given track without human input for direction or speed.

2 Common and individual tasks

Common	Alexandre	Maxime.G	Maxime.E	Mickael
T-shirt Modularity Organisation Neural network	Load & Save Data Data set Datagenerator	Load & Save Data Data set Datagenerator	Arduino Car Control & Camera Data Vis Model training Simulator	Website Basic Car Loop Telemetry server Simulator

3 Description of the realization of the tasks

- Presentation Website: Showcase our project.
- Arduino and car control: Drive the car using code.
- Data handling and visualization: Load, save and visualize data.
- Logging and Telemetry server: Log events and send telemetry to an external server.
- Basic car loop: Put everything together to drive the car with a controller.
- Modularity of the project.
- Datagenerator: Data handling.
- Neural network: Training a model.
- Data augmentation.
- Simulator: gathering data with an online simulator

4 Conclusion

- Recap of what we have said.
- Done : We improved our training model and the telemetry server. We also created a simulator to train our model.
- To do : We have to win the Vivatech race.