

Dynamic Scenario Simulation in Autonomous Driving

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Objectives

The Carla simulator stands as a groundbreaking tool in the realm of autonomous driving, providing a dynamic and realistic environment for the development and testing of autonomous vehicle systems. In this project, the primary objective is to construct a scenario simulation using the Carla autonomous driving simulator. Focused on honing real-world applications, our aim is to meticulously design and implement scenarios that replicate complex driving situations. By leveraging Carla's advanced features, we seek to develop a highly realistic and dynamic simulation environment.

Keywords

Programming, software engineering, simulation.

Workplan

The workplan encompasses complementary tasks as presented below:

- T1 - Technological background study (0.5 months);
- T2 - Requirements analysis (0.5 months);
- T3 - Design and development (1 month);
- T4 - Testing and evaluation (1 month);
- T5 - The writing of the report (1 month).

	March	April	May	June
T1	X			
T2	X			
T3		X		
T4			X	
T5				X

Required Skills

Hard skills: Programming and software engineering skills.

Soft skills: Creative, proactive, responsible, resilient, willing to learn, and able to work in a team.

Deliverables

In this project work the following deliverables are expected:

- A validated computational tool;
- A report describing the method and the validation results.