# Status Report

**Project Path Planning Team1**

**Report Period:**

**CW 45**

## Milestone:

| Milestone | Date | Status | |
|---|---|---|---|
| Run first successful PythonRobotics Path Planning Algorithm with CoppeliaSim | 08.11.2023 | ☺ | |
| Run first successful PythonRobotics Path Tracking Algorithm with CoppeliaSims | 15.11.2023 | ☹ | |
| Raspberry Pi Software Deployment | 15.11.2023 | 😐 | |
| Path Planning - Car Model Adaption | 29.11.2023 | ☹ | |
| Path Tracking - Car Model Adaption | 29.11.2023 | ☹ | |
| Path Planning/Tracking  Runtime Optimization | 13.12.2023 | ☹ | |
| | | ☺ 😐 ☹ | |

## Results in the report period

| Results (achieved, not achieved, planned) | |
|---|---|
| Results achieved | • **Run CoppeliaSim + API on MacOS (use v4.5.1 or older)**<br>• **Run PythonRobotics Library**<br>• **Implement PathPlanningRunner (Interface between CoppeliaSim & PythonRobotics)**<br>• **Implement CoppeliaSim Obstacle Extraction and Map Creation** |
| Results not achieved | • **Python Discrete Map Sampling + Creation from CoppeliaSim** |
| Planned results fort he next period | **Environment Modeling Tasks (assigned to Roman)**<br>• **CoppeliaSim: Model common parking scenes (Parallel Parking, Perpendicular Parking)**<br>• **CoppeliaSim: Model car/robot (Model decision by Car Hardware Team)**<br><br>**Software Tasks (assigned to Laurens)**<br>• **Implementation of Path Tracking (following) Algorithm**<br><br>**Deployment Tasks: (assigned to Lam)**<br>• **Deploy Path Planning SW to RaspberryPi**<br>• **Analyze Runtime of Path Planning SW on RaspberryPi**<br><br>**Documentation Tasks (assigned to Roman)**<br>• **Documentation of Issues and Solvings**<br><br>**POSTPONED TOPICS:**<br>• **Build OMPL Python binding for C++ (Windows & MacOS)**<br>• **Use OMPL Path-Planning-Algorithms in CoppeliaSim** |

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| **Problems, Risks, Measures in Report Period** |
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| a) Which problems have been occured? |
| • |
| b) Which (new) risks can lead to problems? |
| • **Runtime of Motion Planning algorithms** |
| c) So far undertaken countermeasures? Who? Until when? |
| • **Runtime Analysis on Raspberry Pi (assigned to Lam)**<br>• **Runtime Optimization Planning/Tracking (assigned to tbd)** |
| d) Necessary decisions to take? By whom? Until when? |
| •<br>• |