

Path optimization

In Trajectory planning the goal is to analyse the environment and to find a path that follows the track without leaving it or similar.

In order to minimize the overall distance or to maximize the average velocity simply following the centerline of the track is not sufficient.

Therefore, the path not only has to be adjusted to fit the track but also to suit the velocity the car is driving.

TASKS

- Optimization of a centerline trajectory using reference trajectory planning.
- Controlling the velocity based on the track

REQUIREMENTS

Required:

- C++ Knowledge

Useful:

- Basic understandig of Linear-Programming
- ROS

WE OFFER

- References and support to get started
- Workshops and seminars
- Simulation environment as testing tool