

Mapping of dynamic objects by mobile robots in intralogistics

Initial Situation

For safe navigation of mobile robots, they need to know their environment. Today, usually a map is created which the robot uses for path planning and navigation. However, dynamic objects in particular are often problematic to integrate in the mapping approach. For this problem, there exist a few approaches in literature.

Scope

Goal of the project is the selection and implementation of mapping algorithms specifically designed to handle dynamic objects in the intralogistics context. Due to data privacy concerns, data from productive environments is not available. This is why development and evaluation need to be done using simulated data.

Possible Work Packages

- Identification of requirements
- Selection of suitable mapping algorithms specifically designed for dynamic objects
- Implementation of the earlier identified mapping algorithms
- Evaluation

Prerequisites

- Technical course in bachelor or master
- Knowledge in Python
- Structured, independent and diligent way of working
- Good German and/or English language skills

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