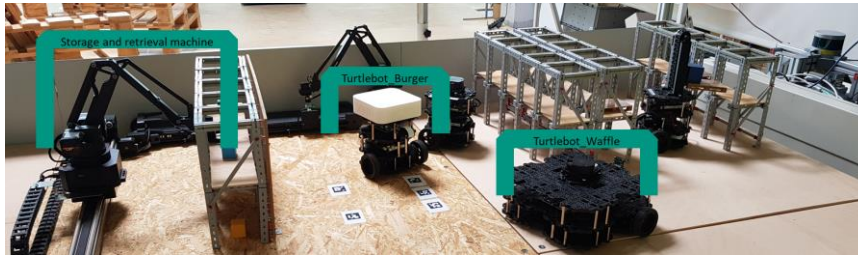


Bachelor Thesis / Bachelorarbeit

How to make Robotics in Logistics Ready for Industry 4.0? – A Cooperation Project with SAP



Setup: Our group at the IFL is currently setting up an experimental environment (see image) to study production logistics. During this work you will be part of our team of students and academic researchers from different fields of study and can take an active part in our current research. The research is part of a cooperation project with SAP.

Problem: The term industry 4.0 is central in the industry. Every company wants to take part in the fourth industrial revolution, but how this is done is still unclear. One central concept is the Asset Administration Shell (AAS). A framework to store, organize and exchange data between participants.

Task: In this work you will be conducting a literature review on the concept of Industry 4.0 in Logistics. Based on that you will create a state-of-the-art section on how the AAS is used to achieve the goals of Industry 4.0. In addition, current challenges will be highlighted. In a simple implementation, an AAS for a robot in logistics will be created and evaluated as the practical part of the work.

Prerequisite: You like to work on new concepts, you are interested in how problems are solved in the industry and you want to get started in automation and robotics? Then this bachelor thesis is the perfect start for you.

What we offer: A work with practical relevance, proximity to current research topics and interaction with our partners at SAP. The support includes weekly meetings with your contact at IFL. We are also interested in a long-term cooperation as a working student after you are finished with your work.

Not really your topic, but you are interested in the general topic of mobile robots, automation in logistics and practical work? Feel free to contact us and we can try to find a fitting topic.

Field of research:
Robotics and Interactive Systems

Content of this work:

- Experimental
- Theoretical
- Practical
- Simulation
- Design (CAD)
- Graphic design

Studies:

- Mechanical Engineering
- Mechatronics
- Industrial Engineering and Management

Starting: as soon as possible

Language: deutsch/english

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