

Short Introduction to Projects

KARIS and KARIS Pro

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The KARIS project (2009-2012)



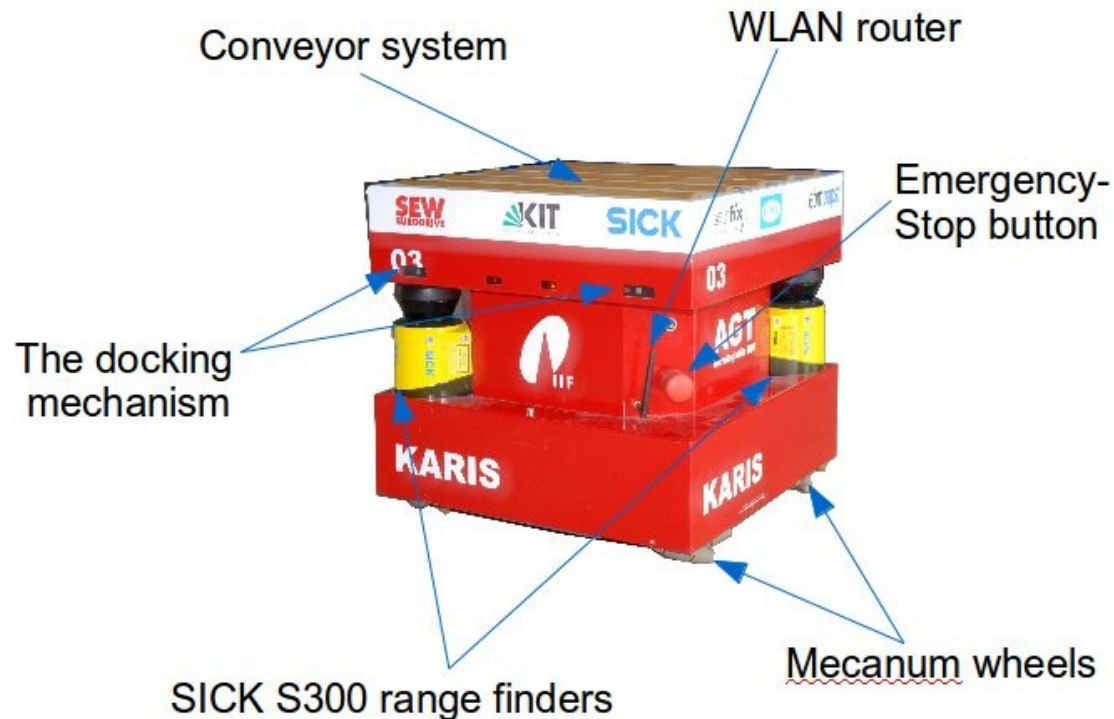
- KARIS: Kleinskalige Autonomes Redundantes Intralogistiksystem
 - Autonomous material transport system
 - Several small robots
- Developed by several companies and universities in south Germany
- Goal:
 - Decentralized structure
 - Large robot team
 - Human workspace
 - Dynamic adaption



The KARIS Project (2009-2012)



- Hardware components of a third prototype of the KARIS robot



Real-Word Demonstration



- Demonstration during the *Logimat* Fair in Stuttgart 2010



2x playback speed

Multi-Robot Navigation



- Behavior-based Collision Avoidance



The KARIS Pro (2014-2016)



- A Follow-up project of KARIS
- KARIS Pro: **KARIS** in der **Pro**duktion
- Funded by a Bundesministerium für Bildung und Forschung (BMBF) grant
- Long-term goal:
 - Industrial pilot applications in selected companies
- Web page:
 - KARIS Pro: (coming soon)
www.karispro.de
 - BMBF: (in German)
http://www.produktionsforschung.de/verbundprojekte/vp/index.htm?TF_ID=121&VP_ID=3558

Project-related Researches



- Robotics
 - Localization
 - Navigation
 - Multi-robot systems
 - Swarm systems
- Optimization and Planning
 - Task assignment
 - Action planning
- For further information, please contact us