



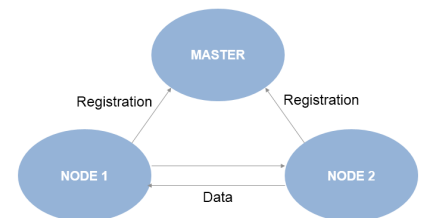
Partner:
 Chair of Robotics,
 Artificial Intelligence
 & Embedded Systems

System Architecture and Behavior Framework for an Autonomous Robot

IDP Informatics Master's Thesis Bachelor's Thesis

Angsa revolutionizes the removal of trash on grass and gravel: Individual objects are detected by an artificial intelligence and removed by the autonomous robot. and service/client patterns.

The goal of this project is to develop an improved backbone for the robot framework based on ROS2 for module interaction and behavior management. A modular framework should enable the different components (device drivers, task planning nodes, user interfaces) to run independently from each other while communicating through ROS messages.



Your Tasks

- Literature review and study of similar systems
- Conception of the high-level architecture
- Definition of relevant services and actions
- Implementation of adapter nodes for existing firmware components
- Tests in real-world scenarios

Your Profile

- Enrolled in Robotics, Informatics, etc.
- You like solving complex problems
- Enthusiasm for mobile robotics
- Experience with ROS / ROS2
- Good Python and C++ skills
- Team spirit and good communication skills

What We Offer

- Startup culture: Team events, flat hierarchies, agile methods and flexible working hours
- Real-world impact: Your results will be used in pilot projects with customers this summer
- Responsibility and leadership: Good work and ownership are rewarded at Angsa: You can play a decisive role in shaping your role in the team.
- Workplace & Equipment: A workplace with desk for you in our office and at our workshop, access to the Makerspace, free coffee & snacks.

Sounds Interesting?

Send us an e-mail with a short description of your skills and motivation. If you have questions about the job or about us, please call us or come by.

Not the right topic yet? Send us an unsolicited application and we will find a suitable position in our team together!

Find us in the TUM Incubator:
 Lichtenbergstr. 6 Campus Garching

Your Contact: Bilal Tariq
 +49 1516 1645835
jobs@angsa-robotics.com