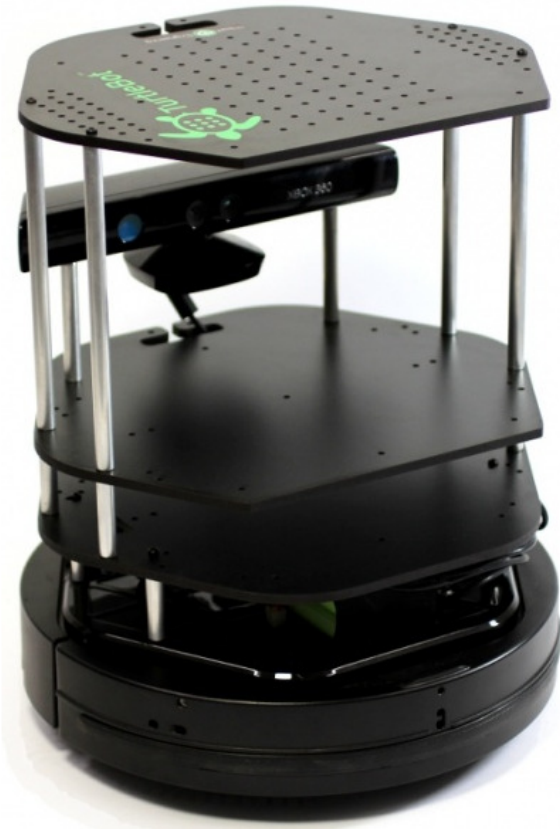


Master-/Bachelorthesis or Research-Project

**Topic:**

Pretouch sensors are capable to estimate the position of objects prior to touching it and thus close the gap between vision and contact based sensing. Our aim is to apply our pretouch sensors onto mobile robot platforms.

Goal:

The project goal is a full sensor integration of our pretouch sensor onto the robot platform KOBUKI (Turtlebot 2). Therefore, the pretouch sensor should be integrated (wired/wireless) onto the robot and a sensor node should be implemented in the Robot Operation System (ROS) publishing the sensor data. Additionally, the sensor data should be visualized within ROS.

The extend of the project can be scaled/partitioned according to particular interest(s) of the student(s), work in a team is also possible.

Knowledge / Interest:

- Programming languages and operation systems (C/C++, Linux)
- Sensors / Sensor integration
- Robotics
- Scientific work

Contact & Advisor:

Stephan Mühlbacher-Karrer (stephan.muehlbacher-karrer@aau.at)

Institut of Smart System Technologies

Sensors and Actuators

www.aau.at/sat