

AutonOHM@WORK

Daniel Ammon, Helmut Engelhardt, Tobias Fink, Florian Gramss,
Alexander Gsell, Dominik Heigl, Jon Martin

Web page: [AutonOHM@WORK](#)

CURRENT DEVELOPMENT:

- Improvements on our own packages:
 - Implementation of image processing using the Intel® RealSense™ camera based on OpenCV and PCL.
 - Improvements on our SLAM-Algorithm. Make it more stable by adding odometry and particle filter.
- Hardware improvements:
 - Design a new grasper / land platform to facilitate tasks.
 - Add a platform to reallocate the arm and be able to reach further.

SOFTWARE INFORMATION:

- Own open source libraries:
 - ohm_tsd_SLAM (GitHub) for SLAM
- External libraries:
 - OpenCV and PCL
 - ROS Navigation Stack
 - youBot drivers

HARDWARE INFORMATION:

- Kuka youBot omni-directional mobile platform
- Hokuyo URG-04LX-UG01 laser scanner
- LEDs lamp integrated close to the camera

Changes since Magdeburg 2015:

- CPU Intel Core i7-4790K, 4x 4GHz
- Intel® RealSense™ camera
- Bigger and more flexible grasper



AutonOHM youBot during RoboCup German Open 2015