



Overview youBot software

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<http://youbot-store.com/software.aspx>

- Main software repository
- ISO Image: remastered Ubuntu 10.04
- COLLADA and Blender models of hardware

[http://www.best-of-robotics.org/
3rd_researchcamp/Software](http://www.best-of-robotics.org/3rd_researchcamp/Software)

- Orocos components for arm control

- SOEM: free EtherCAT master
 - Position / velocity / current control of all motors/axes
 - Reading of encoder values
 - Initialisation / configuration of robot
- youBot API for convenient access via C++ classes
- Orocos component

- ROS-Wrapper of youBot API
- ROS navigation stack
 - Obstacle avoidance
- ROS arm navigation stack
 - inverse kinematics

- Everything tested for ROS electric

- OrocOS:
 - Impedance control, gravity compensation
- Android:
 - Demo app for control at youBot store
 - Another app developed by Xitaso, not tested yet
- Labview:
 - Prototype by wrapping youBot API

- Gazebo
 - Using ROS interfaces
- Webots
 - Integration work done at HS Ostfalia
- V-REP

- Kinect
- Hokuyo laser scanner

- BumbleBee2 stereo camera
- SwissRanger 3D
- Asus Xtion
- Webcams

- Universal sensor carrier