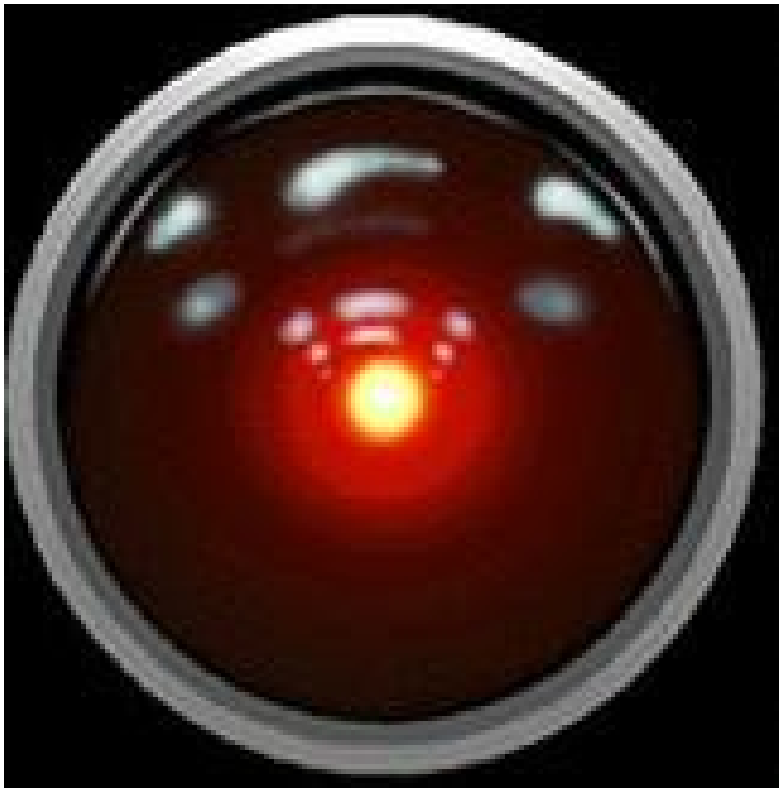


CS 378: Autonomous Intelligent Robotics

Instructor: Jivko Sinapov

http://www.cs.utexas.edu/~jsinapov/teaching/cs378/

Announcements

Robotics Study

Readings for this week

Stoytchev, Alexander. "Some basic principles of developmental robotics." Autonomous Mental Development, IEEE Transactions on 1.2 (2009): 122-130.

Minsky, Marvin. "Steps toward artificial intelligence." Proceedings of the IRE 49.1 (1961): 8-30.

Veloso, Manuela, et al. "CoBots: robust symbiotic autonomous mobile service robots." Proceedings of the 24th International Conference on Artificial Intelligence. AAAI Press, 2015.

Readings for this week

Reading response posts are due before class on next Tuesday

In the news...

WIRED In a Huge Breakthrough, Google's AI Beats a Top Player at the Game of

SHARE

SHARE 12429

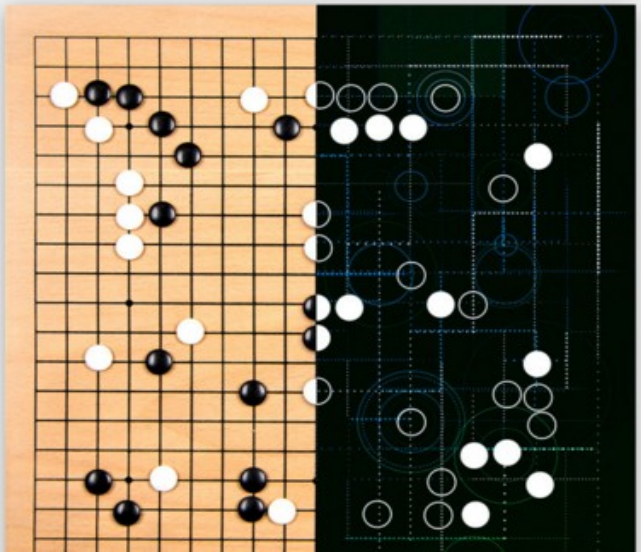
TWEET

PIN 17

COMMENT 48

EMAIL

IN A HUGE BREAKTHROUGH, GOOGLE'S AI BEATS A TOP PLAYER AT THE GAME OF GO



Homework 0 (due today)

Get access to a 64bit Ubuntu 14.04 LTS Linux Machine

Today...

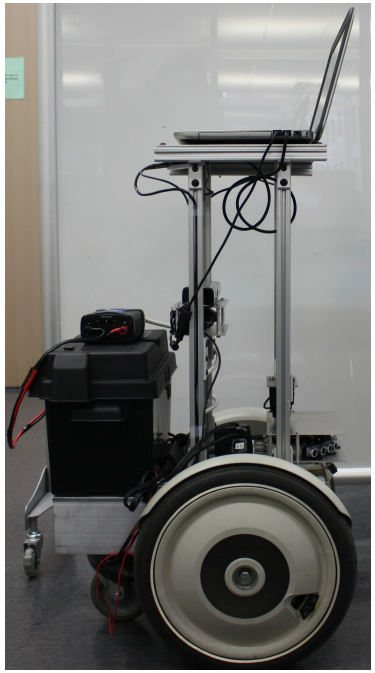
- Crash Course in Linux

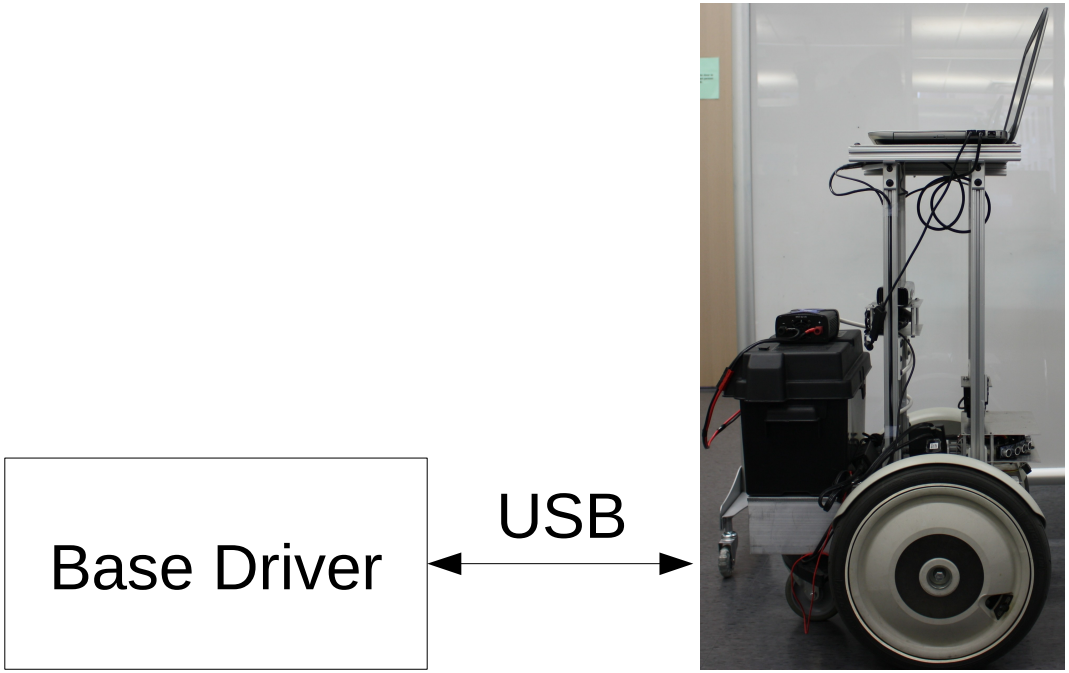
- Introduction to ROS

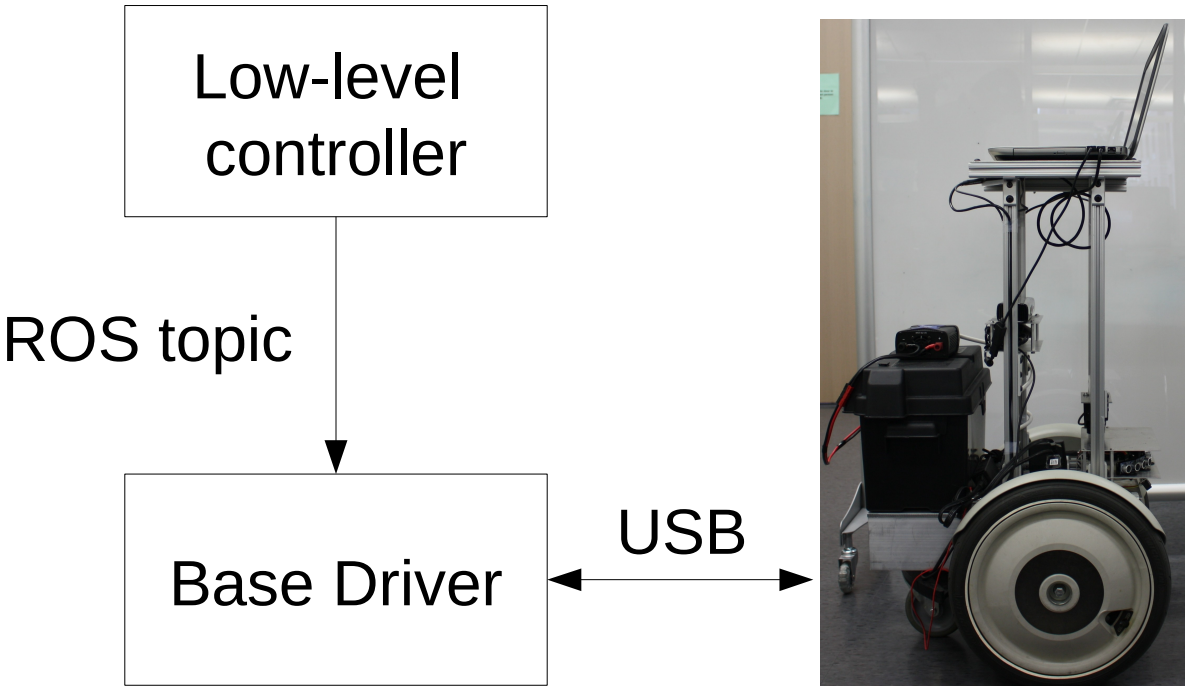
Introduction to Robot Operating System

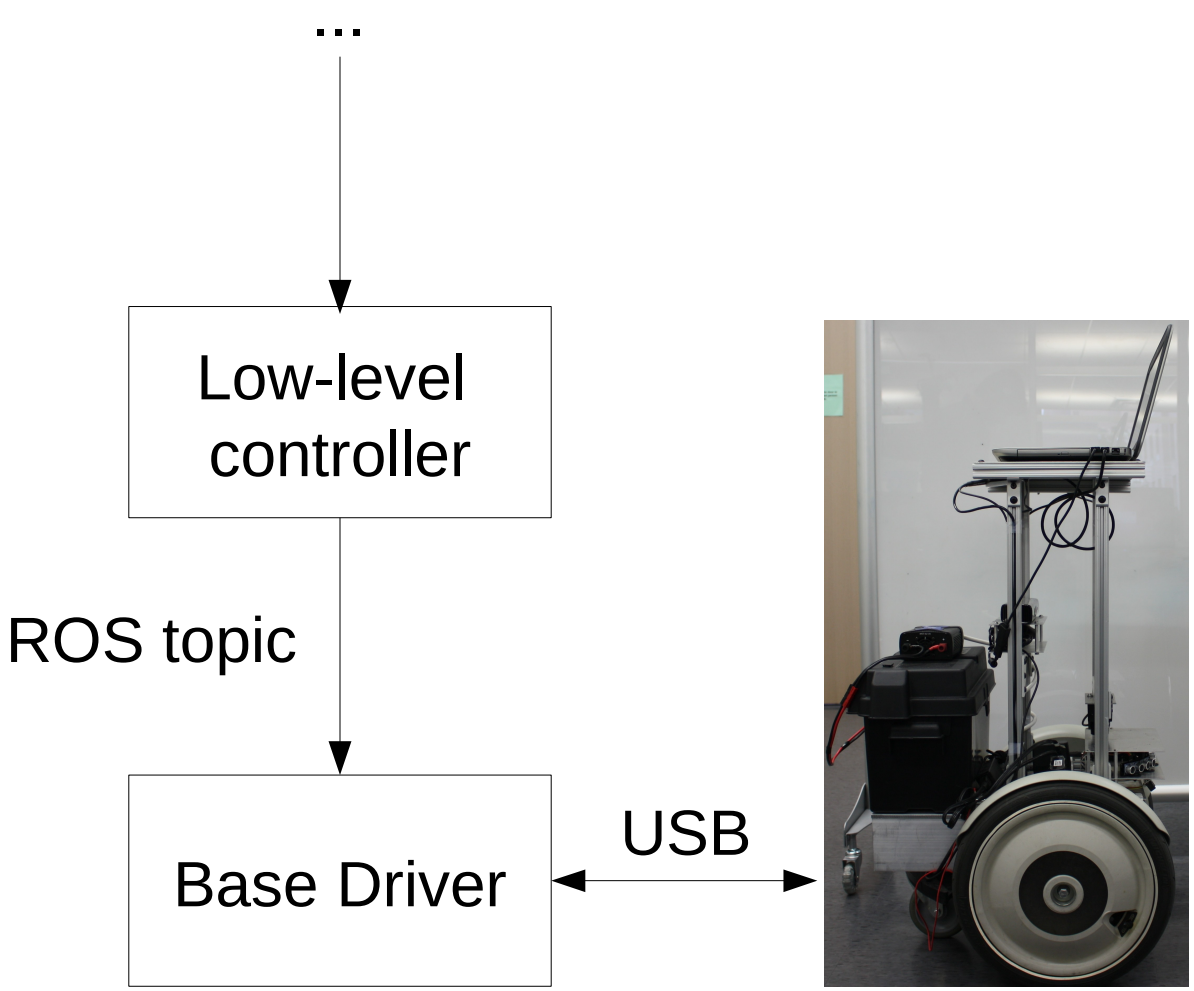
What is ROS?

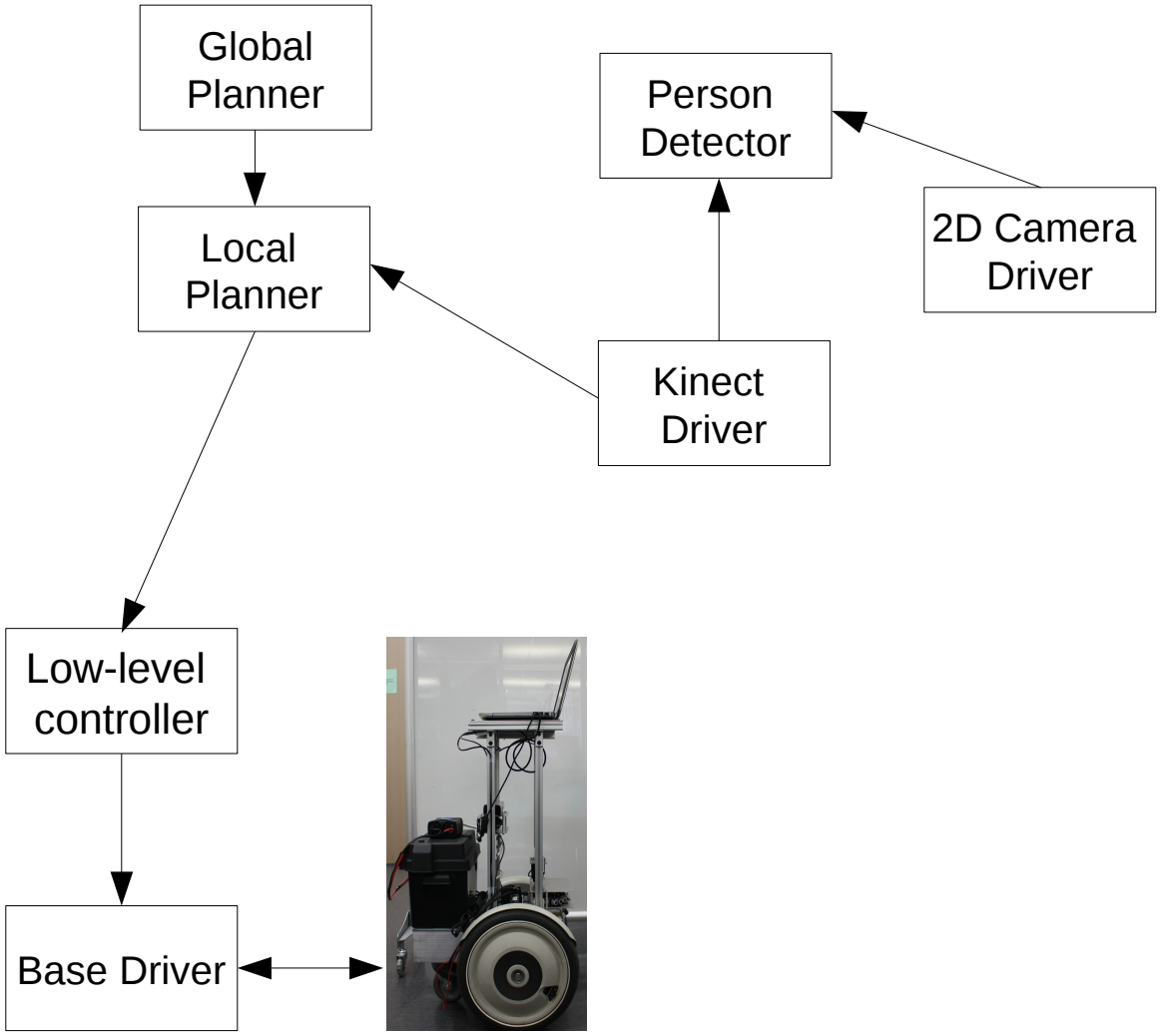
ROS is an open-source, meta-operating system for your robot. It provides the services you would expect from an operating system, including hardware abstraction, low-level device control, implementation of commonly-used functionality, message-passing between processes, and package management.

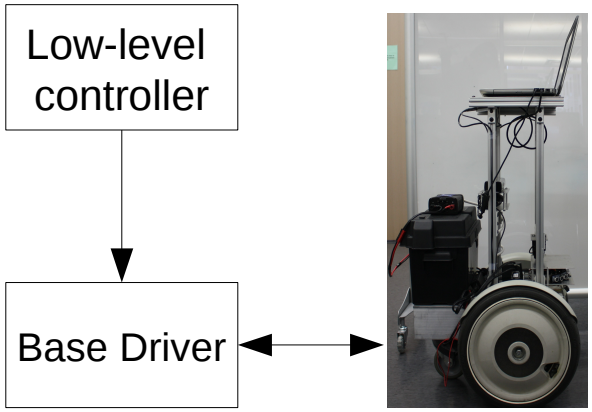


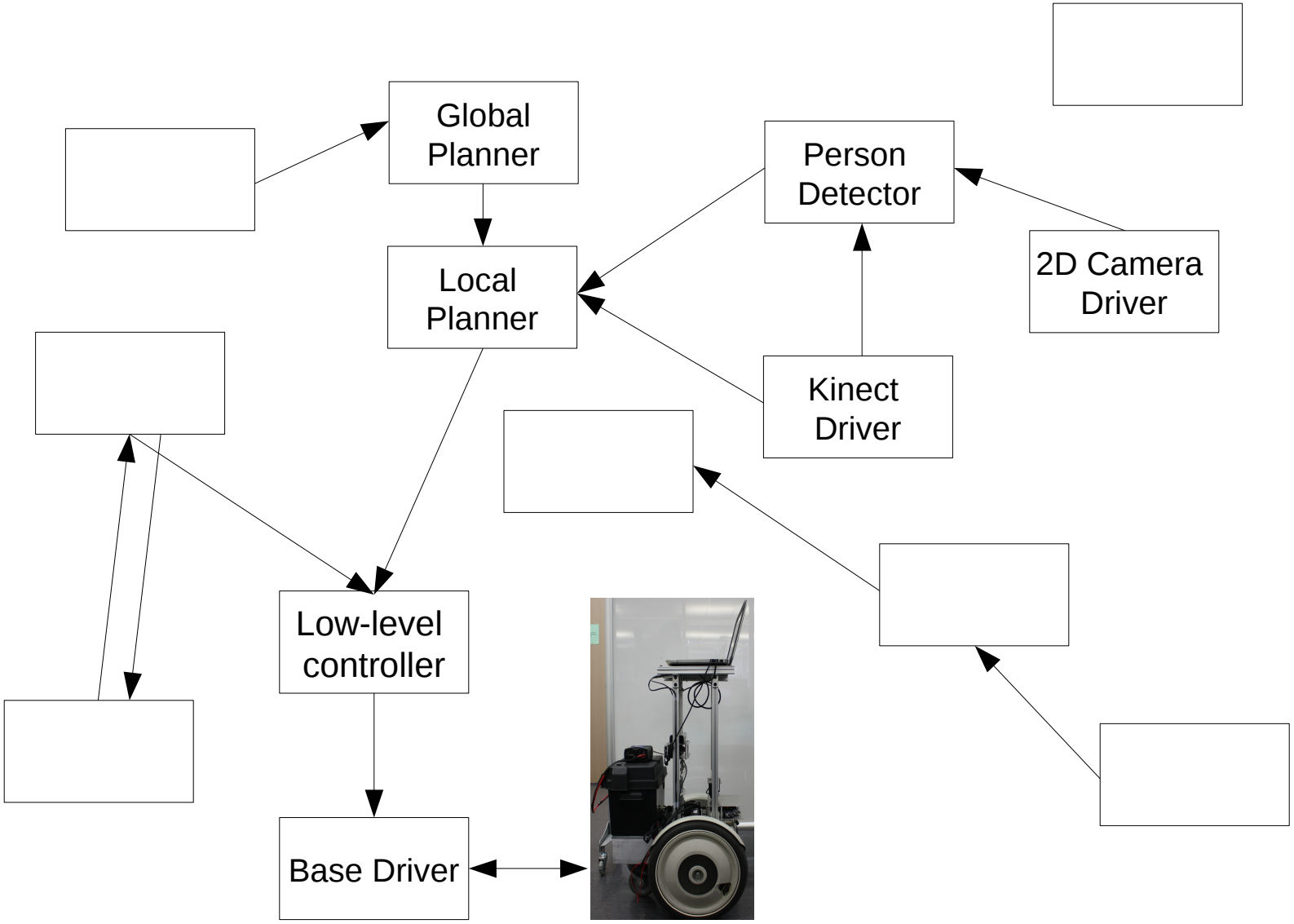

Base Driver
USB


Low-level controller
ROS topic
Base Driver
USB


...
Low-level controller
ROS topic
Base Driver
USB


Global Planner
Person Detector
2D Camera Driver
Local Planner
Kinect Driver
Low-level controller
Base Driver


Low-level
controller
Base Driver


Global Planner
Person Detector
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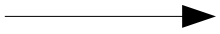
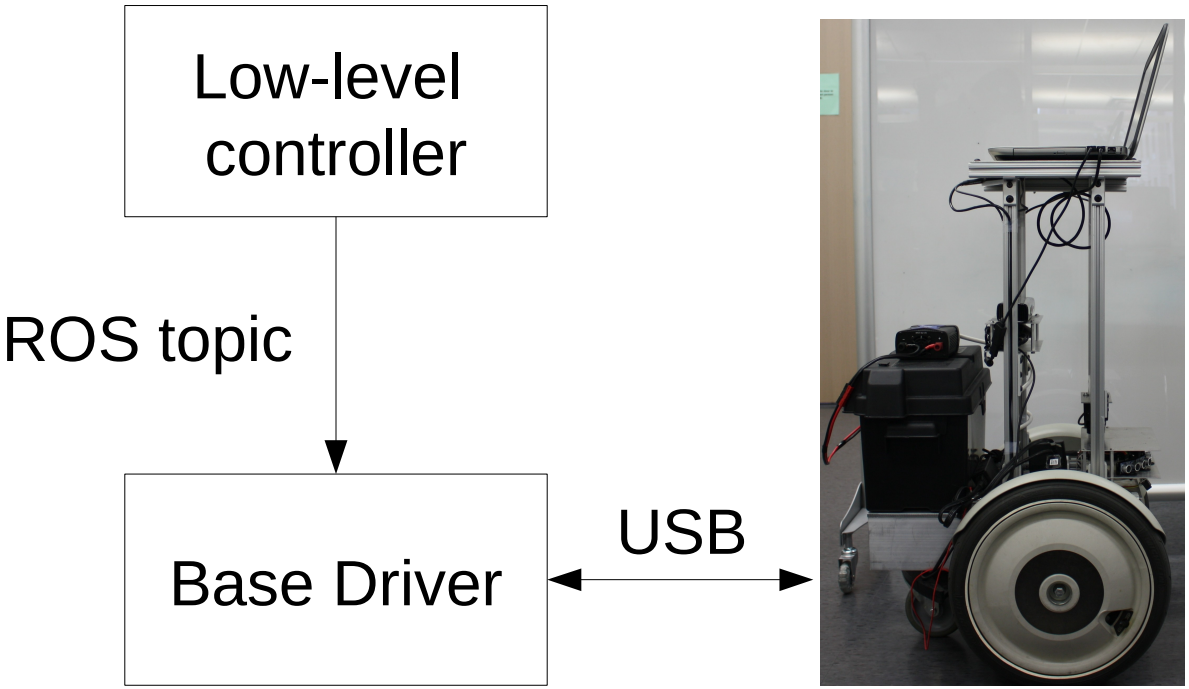
Low-level controller
Base Driver

What is a ROS Topic?

What is a ROS Topic?




Low-level controller
ROS topic
Base Driver
USB

A tour of the ROS wiki...

Basic Linux Shell Commands

Homework 1 (due Feb 4th)

THE END