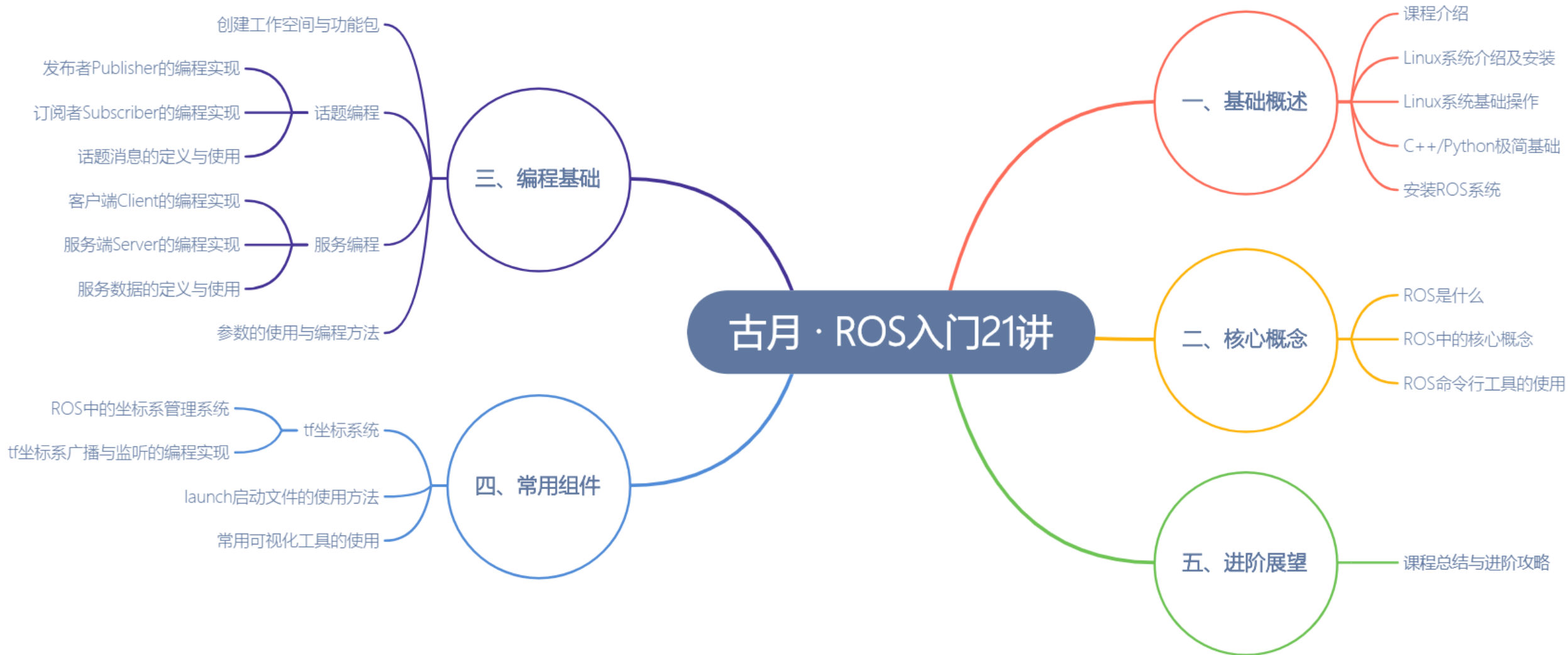


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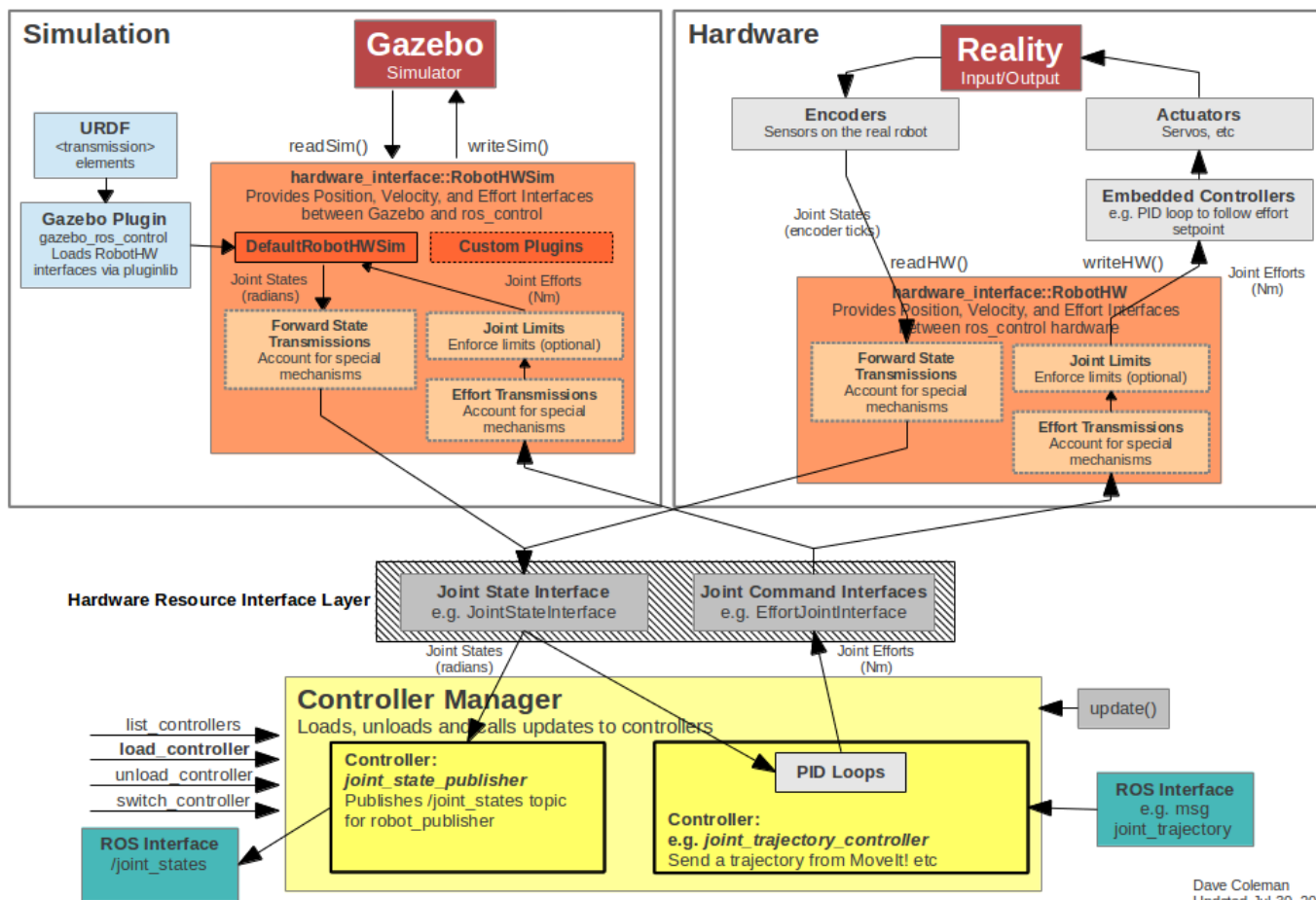
主讲人：古月



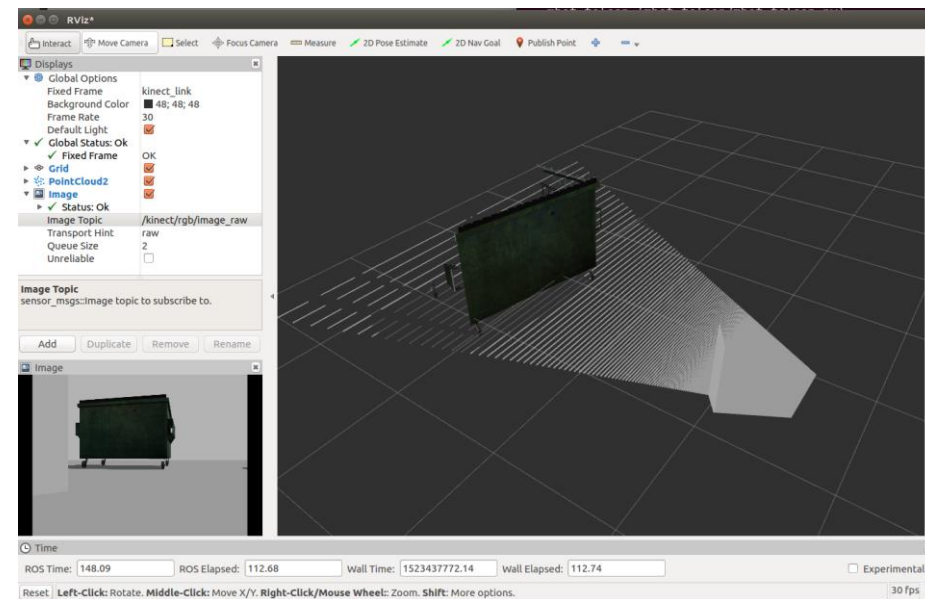
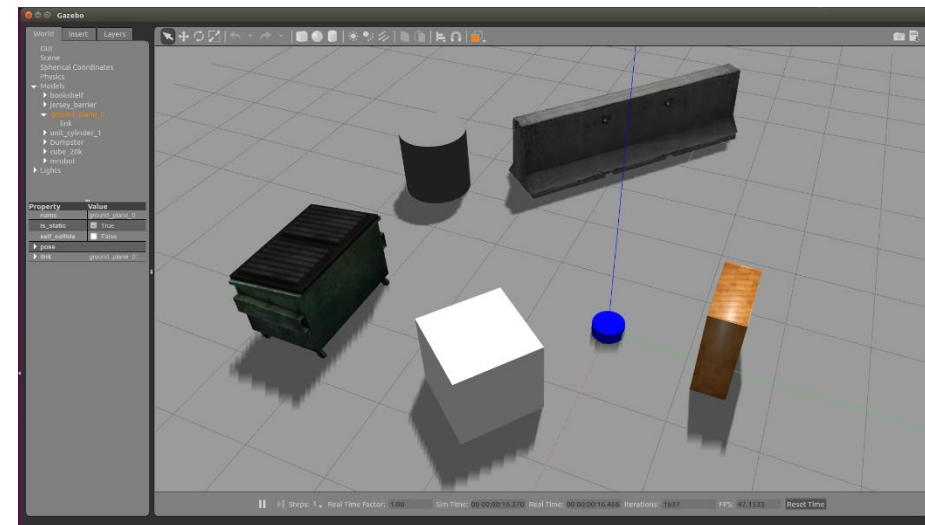
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GAZEBO + ROS + ros_control

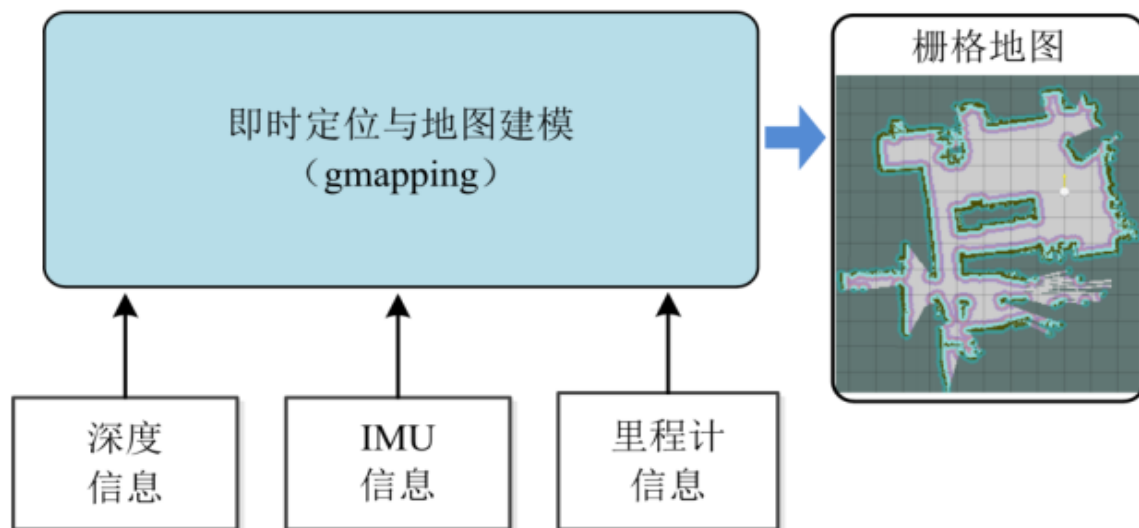


Dave Coleman
Updated Jul 30, 2013



*参考链接: http://wiki.ros.org/ros_control

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gmapping

indigo kinetic **lunar** Show EOL distros: ☐

Documentation Status

Package Summary

✓ Released ✓ Continuous Integration ✗ No API documentation

This package contains a ROS wrapper for OpenSlam's Gmapping. The gmapping package provides laser-based SLAM (Simultaneous Localization and Mapping), as a ROS node called `slam_gmapping`. Using `slam_gmapping`, you can create a 2-D occupancy grid map (like a building floorplan) from laser and pose data collected by a mobile robot.

- Maintainer status: unmaintained
- Maintainer: Vincent Rabaud <vincent.rabaud AT gmail DOT com>
- Author: Brian Gerkey
- License: Creative Commons-by-nc-sa-2.0

hector_mapping

indigo kinetic **lunar** Show EOL distros: ☐

Documentation Status

hector_slam: [hector_compressed_map_transport](#) | [hector_geotiff](#) | [hector_geotiff_plugins](#) | [hector_imu_attitude_to_tf](#) | [hector_map_server](#) | [hector_map_tools](#) | [hector_mapping](#) | [hector_marker_drawing](#) | [hector_nav_msgs](#) | [hector_slam_launch](#) | [hector_trajectory_server](#)

Package Summary

✓ Released ✓ Documented

`hector_mapping` is a SLAM approach that can be used without odometry as well as on platforms that exhibit roll/pitch motion (of the sensor, the platform or both). It leverages the high update rate of modern LIDAR systems like the Hokuyo UTM-30LX and provides 2D pose estimates at scan rate of the sensors (40Hz for the UTM-30LX). While the system does not provide explicit loop closing ability, it is sufficiently accurate for many real world scenarios. The system has successfully been used on Unmanned Ground Robots, Unmanned Surface Vehicles, Handheld Mapping Devices and logged data from quadrotor UAVs.

- Maintainer status: maintained
- Maintainer: Johannes Meyer <meyer AT fsr.tu-darmstadt DOT de>
- Author: Stefan Kohlbrecher <kohlbrecher AT sim.tu-darmstadt DOT de>
- License: BSD
- Source: git https://github.com/tu-darmstadt-ros-pkg/hector_slam.git (branch: catkin)

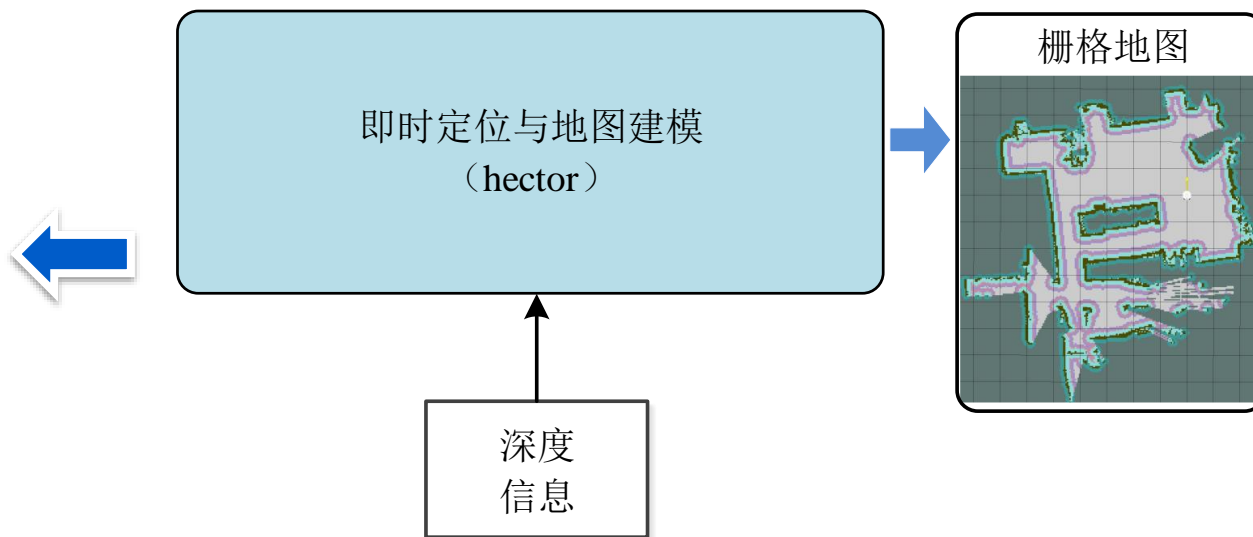
Package Links

[Code API](#)
[Msg API](#)
[FAQ](#)
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[Change List](#)
[Reviews](#)

Dependencies (10)

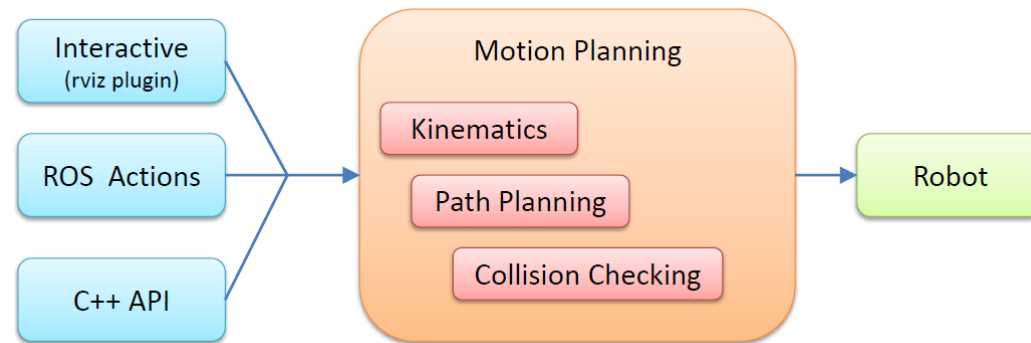
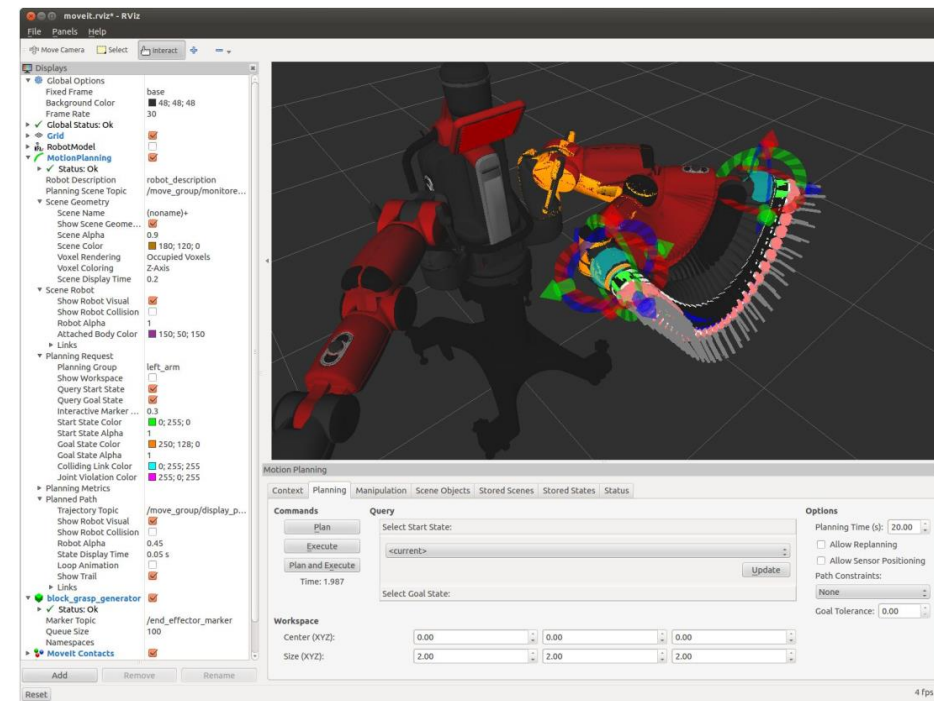
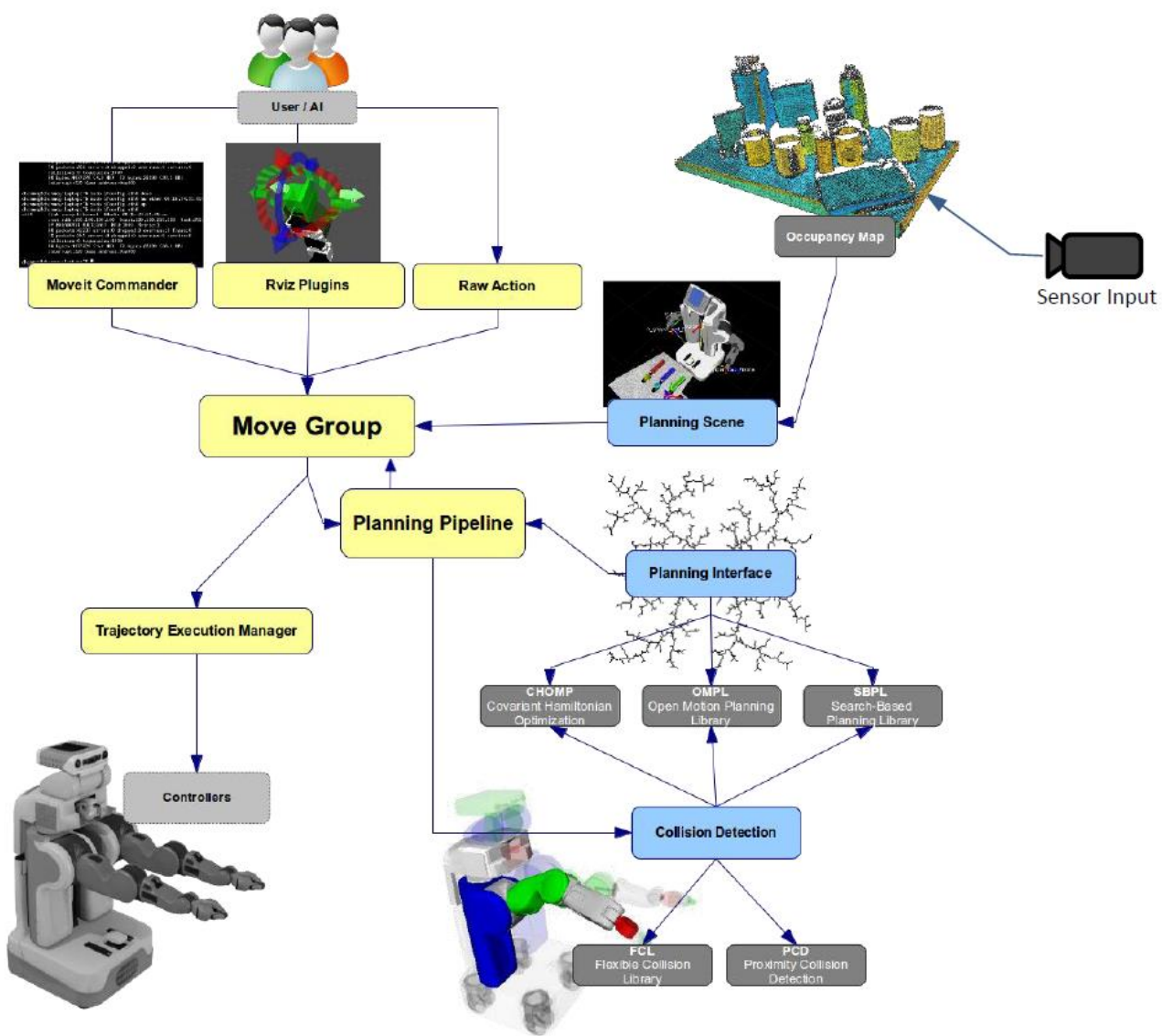
Used by (4)

Jenkins jobs (6)

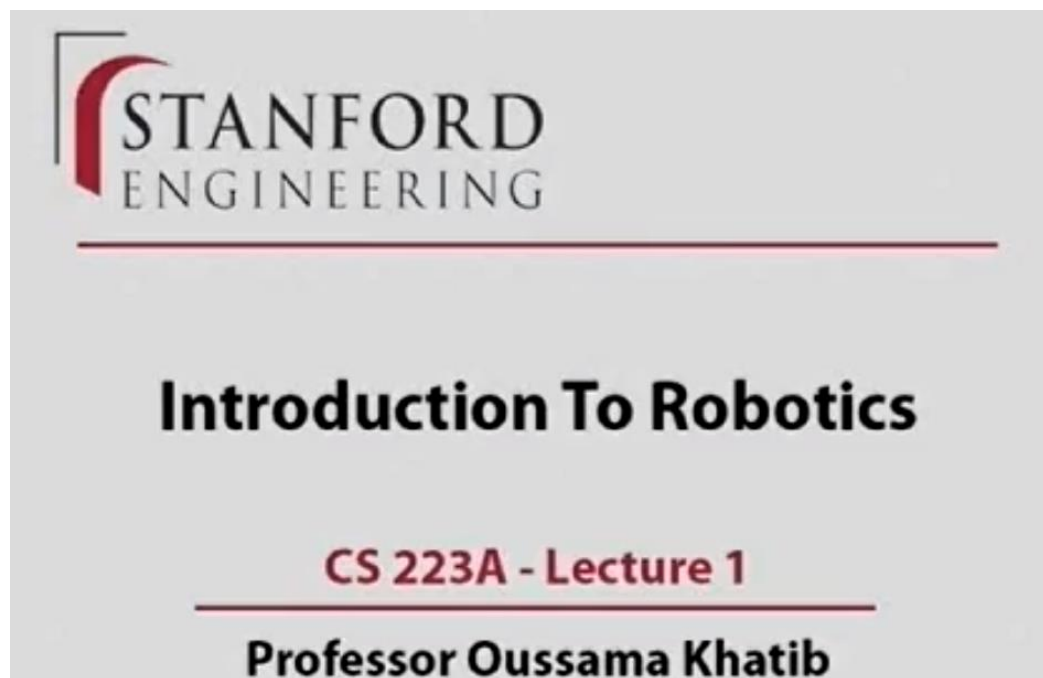


* 参考链接: <http://wiki.ros.org/gmapping/>、http://wiki.ros.org/hector_slam

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* 参考链接: <https://moveit.ros.org/>



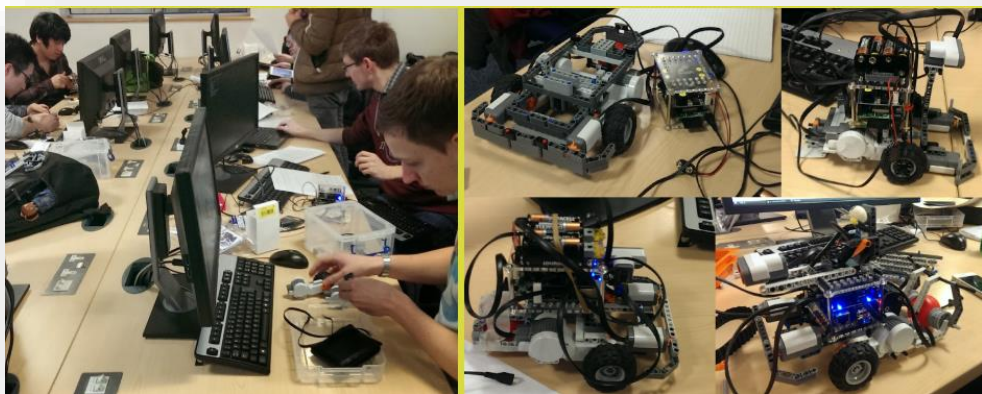
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Andrew Davison的机器人学讲座课程
<http://www.doc.ic.ac.uk/~ajd/Robotics/index.html>

Lectures

Number	Title of lecture	Teacher	Material
151-0851-00L	Robot Dynamics	M. Hutter, R. Siegwart, T. Stastny	Material →
151-0662-00L	Programming for Robotics - Introduction to ROS	D. Jud, M. Wermelinger, Marko Bjelonic, P. Fankhauser, M. Hutter	Material →

ETH - Robotic Systems Lab

<http://www.rsl.ethz.ch/education-students/lectures.html>



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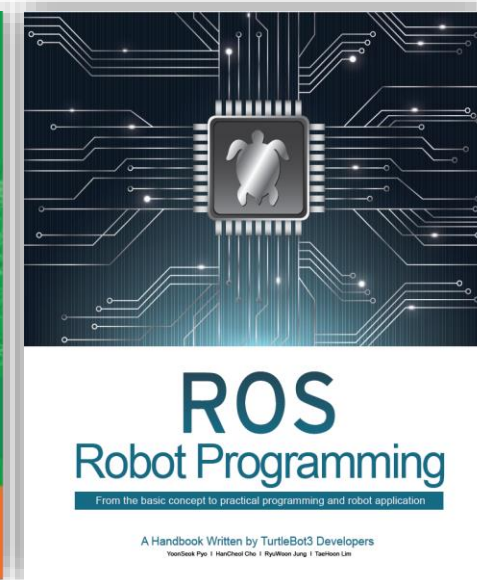
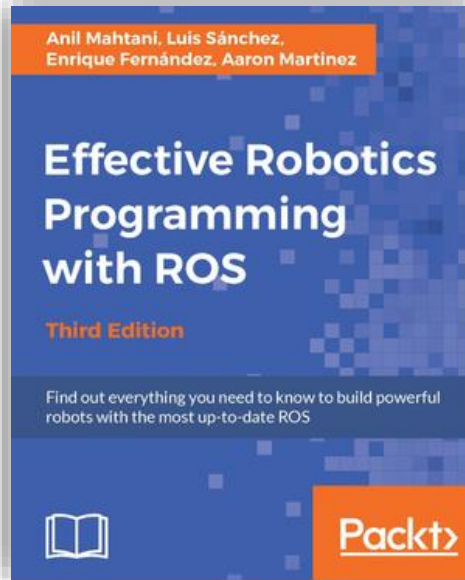
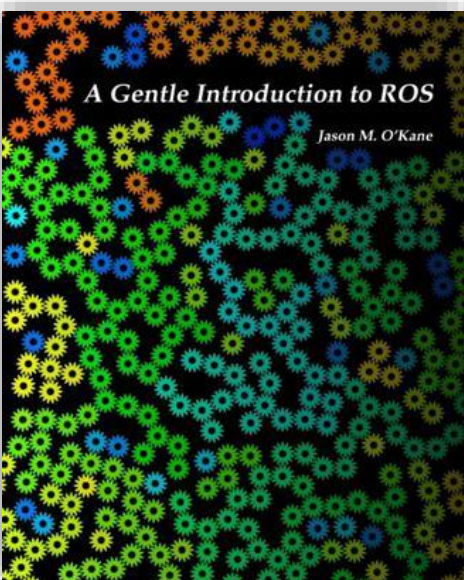
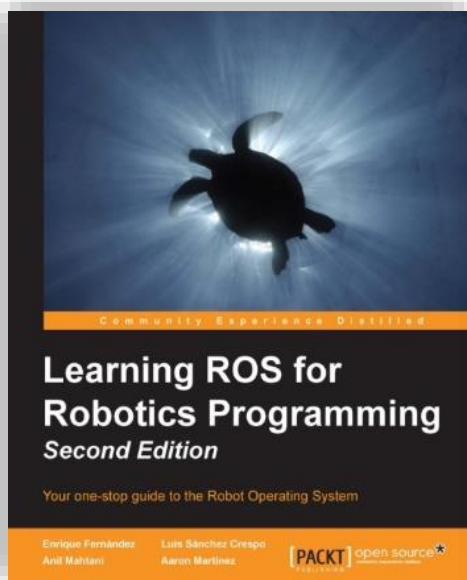
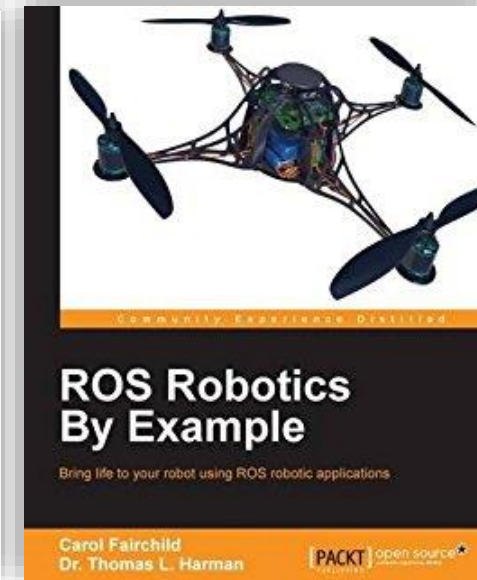
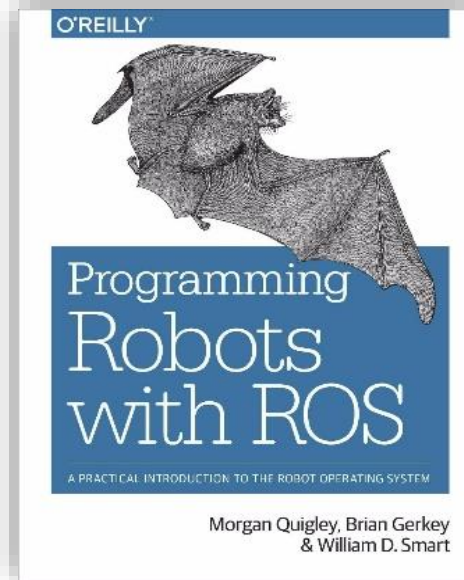
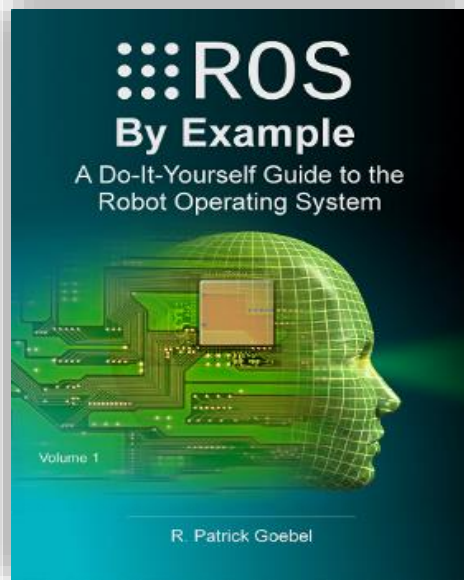
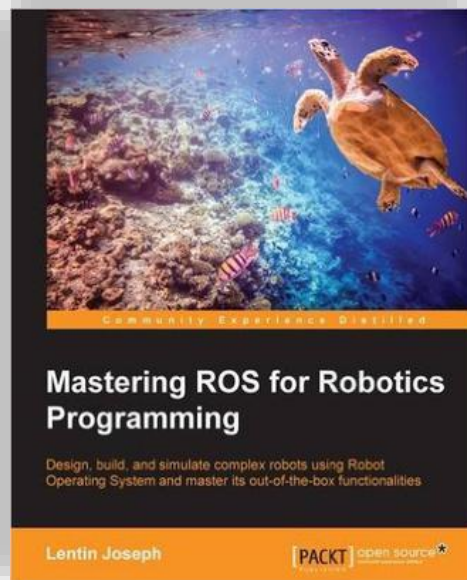
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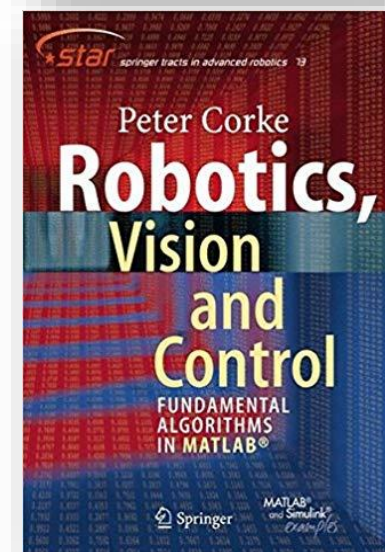
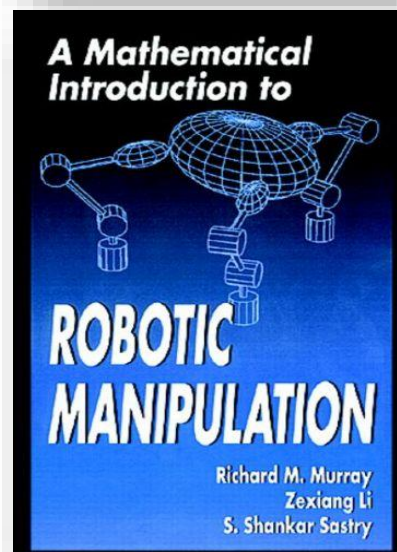
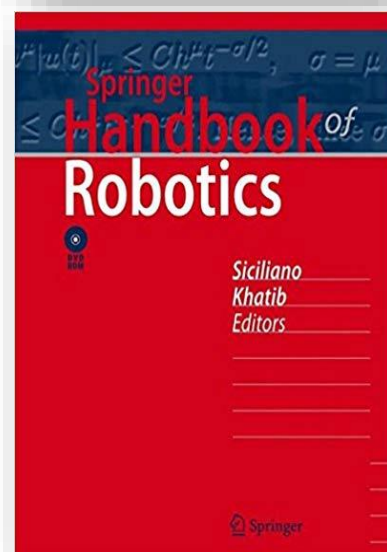
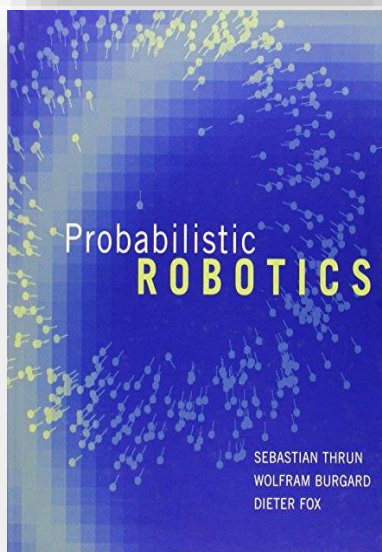
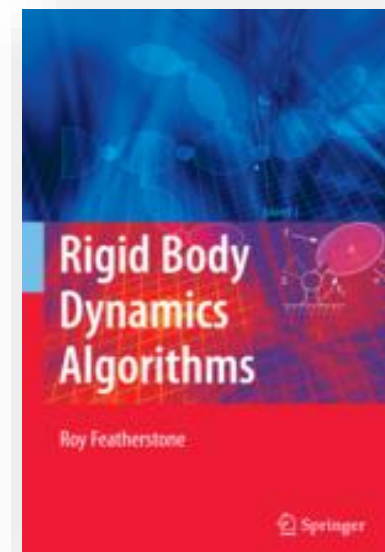
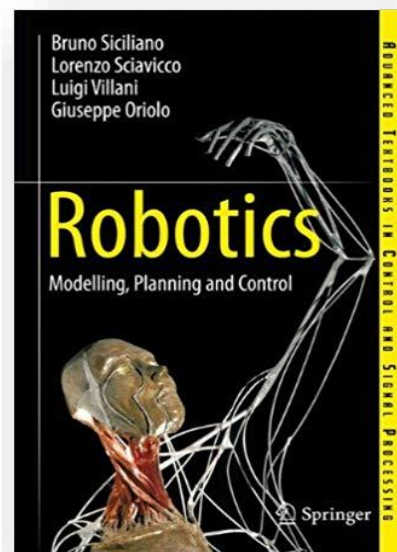
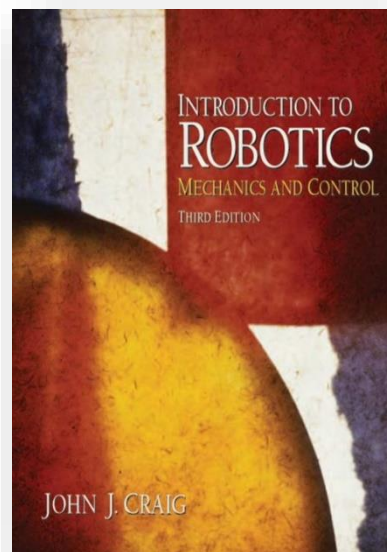
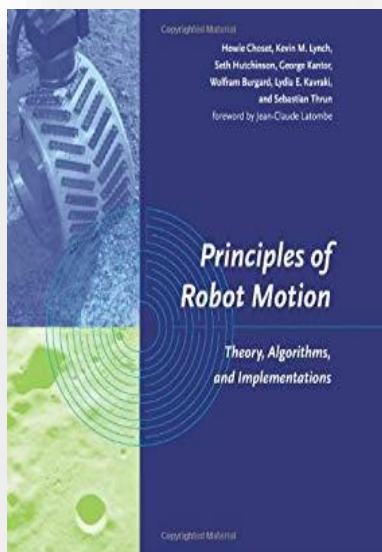
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- ROS : <https://www.ros.org>
- ROS Wiki : <http://wiki.ros.org/>
- ROSCon 2012 ~ 2019 : <https://roscon.ros.org>
- ROS Robots : <https://robots.ros.org/>
- Ubuntu Wiki : <https://wiki.ubuntu.org.cn>
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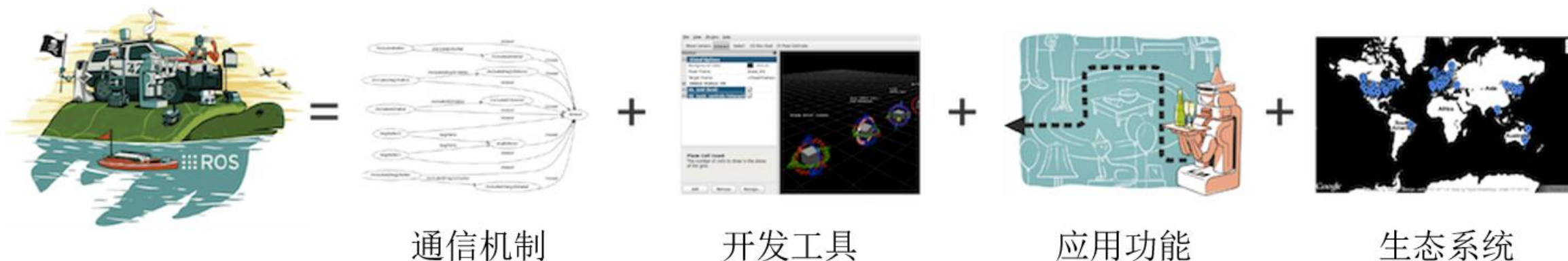


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**ROS是一个工具，也是一种生活方式，
但他并不完美，也不是机器人开发的全部**

What is ROS? The name “robot operating system” is arguably a misnomer. Defining ROS succinctly is difficult, since it encompasses myriad aspects, including style of programming (notably, relying on loosely-coupled, distributed nodes); interface definitions and paradigms for communications among nodes; interface definitions for incorporation of libraries and packages; a collection of tools for visualization, debugging, data logging and system diagnostics; a repository of shared source code; and bridges to multiple useful, independent open-source libraries. **ROS is thus more of a way of life for robot programmers than simply an operating system.** Definitions of ROS are drawn from the following sources.

From the ROS wiki (<http://wiki.ros.org/ROS/Introduction>):

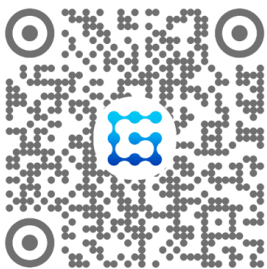
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