



Practical Robotics

Introduction

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Organization

- Course Meeting times:
 - Mondays, 11:30-13:00 (-1.208 Robotics Lab)
 - Thursdays, **11:30-13:00** (-1.208 Robotics Lab)
- Admin things, please ask:

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Why do we have this course?

What is a robot?

- Sensing
- Control
- Automation
 - Series of complex tasks

How do we get there?

- Hardware
- Firmware
- "Smarts"

Project

- Requirements
- Groups
- Previous Projects

Project - Requirements

- Robot does something cool!
- Groups of 2-3 people
- Can include:
 - Kinect / PointClouds / "Vision"
 - Machine Learning / Reinforcement learning
 - Human-Robot Interaction
 - Evil robot overlords.

Projects - Last Year

- Position Control of a Ball on a Rail, using vision
- Reinforcement Learning for Throwing
- Writing with Baxter

Where to start?

Tools

- Linux
- Git
- ROS
- OpenCV, PCL
- iPython
- QtCreator
- MLR Codebase

Today

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