COMP.4510 and COMP.5490
Lecture 1: Course Introduction

Holly Yanco
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Textbook

Book will be heavily used for the entire course; highly recommend that everyone have their own copy

~$25 to rent at Amazon
~$62 to buy new at Amazon
Also available at the bookstore
Grey Walter’s Tortoises, 1950

BRISTOL’S ROBOT TORTOISES HAVE MINDS OF THEIR OWN
Shakey, SRI 1960s
Stanford Cart, 1970
Three Types of Robot Architectures

Hierarchical

Reactive

Hybrid

From Murphy 2000
Minerva’s Architecture Diagram
Robot localization example
Multi-Robot Mapping and Exploration

Carnegie Mellon
October 1999
Mapping Mines
Closing loops

From https://blog.cometlabs.io/teaching-robots-presence-what-you-need-to-know-about-slam-9bf0ca037553
DARPA Robotics Challenge

June 2015
Google Gar/Waymo
Navlab, CMU, 1997
Starting the class

• Watch videos that review probabilities and Bayes rule by Tuesday’s class
• Make sure your email address is on the sheets that went around the room. This will be used for the Google group that will be used as the class mailing list.