CS 378: Autonomous Intelligent Robotics (FRI)

Dr. Todd Hester

Are there any questions?

Logistics

- Anyone still not signed up for wiki?
- Everyone signed up for piazza?
- No new classroom until GDC
- Class registration
- Office Hours posted

- Assignments for next week
  - Reading due Monday night
  - Add a paper by Tuesday class time

- Talk next Thursday
  - Dr. Xiaofeng Ren
  - RGB-D Perception: Solving Real-World Computer Vision with Consumer Depth Cameras
  - 1 pm, ACES 2.402

Today

Robot Hardware Overview

Segway Base

- RMP 50 base
- Max speed: 4 mph (1.6 m/s)
- Command Freq: 2.5-100 Hz
- Non-Holonomic drive

- Advantages/Disadvantages of this platform?

Processing

- Dell Inspiron 15R Laptop
- 3.2 GHz Intel Core i7
- 8 GB RAM
- 750 GB HD

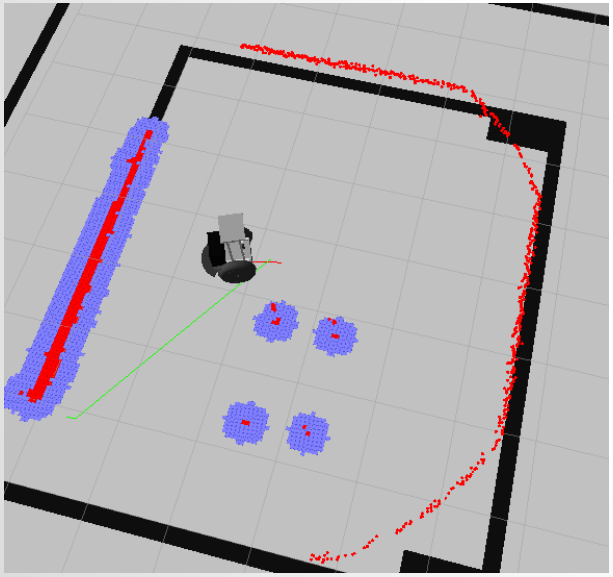
Kinect RGB-D Sensor

- Provides RGB and Depth
- Horizontal field of view: 57 degrees
- Vertical field of view: 43 degrees
- 640×480 32-bit color @ 30 frames/sec
- Depth range: 800 to 4000 mm

- Uses for this sensor?

Hokoyu Laser Scanner

- Field-of-View: 240°
- Distances: 20 mm to 5.6 m



- Uses for this sensor?
- Comparison to Kinect?

Assignments for next week

- Make sure you're signed up for Piazza and the wiki
- Reading response due Monday night on wiki
  - Be sure to put your name on your post!
- Add a new paper to the wiki by class time Tuesday
  - Please add your name and date with the paper!