Autonomous Robots for a Human-Occupied World
and
Wearable Assistive Technology Devices

Prof. Seth Teller

MIT CSAIL / EECS

Microphone

Speaker

Speaker

Netbook (not shown)

Cylindrical FOV Lidar

Spherical FOV camera

Braille display

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Self-driving (autonomous) passenger vehicle

Joint work with J. Leonard (CSAIL/MechE), E. Frazzoli, J. How (LIDS/Aero-Astro) et al.

Voice-commandable robotic forklift

Joint work with R. Davis (EECS), J. Glass (CSAIL), M. Cummings, E. Frazzoli, J. How, N. Roy (Aero-Astro) et al.

Voice-commandable robotic wheelchair that can learn from tours … with a voice-commandable robot arm to manipulate objects

Joint work with N. Roy (CSAIL/Aero-Astro), J. Glass (CSAIL), B. Reamer (AgeLab) et al.

Microphone

Speaker

Speaker

Netbook
(not shown)

Cylindrical
FOV Lidar

Spherical
FOV camera

Braille
display

Wearable device for blind people, with speech/gesture/Braille interface

Joint work with R. Miller, A. Torralba (CSAIL/EECS), J. Glass (CSAIL), N. Roy (CSAIL/Aero-Astro) et al.

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Looking for UROPs to help with:

- Development of robots, wearable devices
  - Sensors, servos, netbooks, Braille devices, wifi…
- Algorithms and human-machine interfaces
  - Perception, real-time mobile manipulation planning and control, speech recognition
  - Coding in Matlab, C/C++, Java, Python
- User testing and evaluation
  - Wizard-of-Oz interfaces, COUHES-approved experiments, prototype trials with real subjects

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How to apply for a summer UROP:

- Email teller@csail.mit.edu
- Put UROP, project keywords in subject line
- Link to (don't attach) your resume as a PDF
- Briefly state your relevant background
- Briefly describe your interest in project(s)
- Suggest a list of meeting times during the weeks of April 11th, April 25th, and May 2nd

- These slides posted at:
  http://people.csail.mit.edu/teller/CSAIL

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