Robotics projects in the Autonomous Systems Lab

Kress-Gazit group

A variety of projects are available for **MAE, ECE,** and **CS** students in the Autonomous Systems lab. The lab focuses on all types of robotics, including theory, hardware, software, and networking for a variety of applications in the general area of autonomous/semi-autonomous robotic systems. All projects will have a long term goal of being integrated into our research goals, as demonstrated in autonomous/semi-autonomous robotic systems.

Lab wiki: http://cornell-asl.org/wiki

Application Instructions: Email the following to the Prof. Kress-Gazit (hadaskg@cornell.edu) :

1. Your CV and unofficial transcript
2. A short paragraph detailing which project you are interested in, why you are interested in it and a few words on your relevant experience
3. Level of effort (number of credits you are looking for). Note that we require all students to sign up for credit hours.

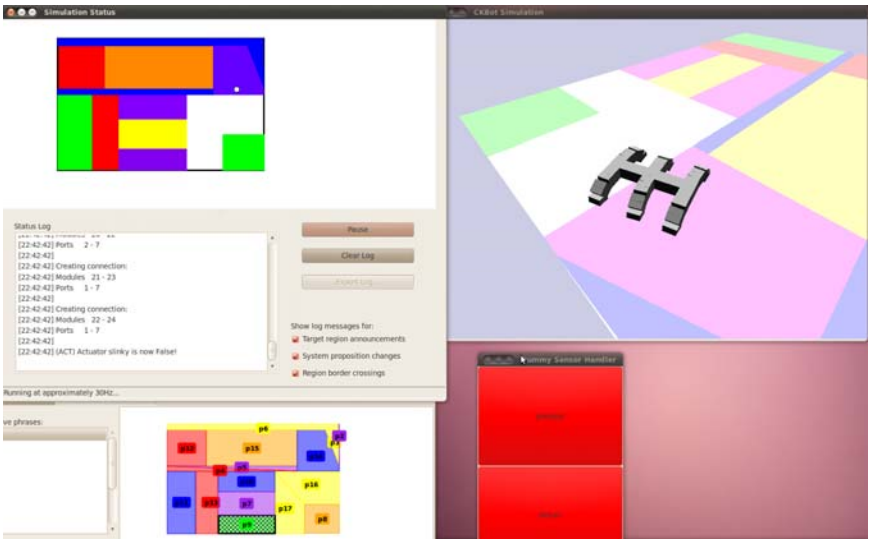
Projects:

1) Web-based simulator (2 students)

The goal of this project is to have a simulator for LTLMoP that runs in a browser and allows a user to:

1. Control a simulated robot using English
2. Add objects dynamically to the simulated environment by clicking areas in the map

3. Receive feedback when added objects violate expected behavior



2) Integrating new sensors with LTLMoP

The goal of this project is to integrate new sensors within LTLMoP. The project will include choosing and setting up the hardware, writing software and integrating the new sensors with the different robots and in standalone mode. Possible sensors include:

- Touch sensors
- Camera + vision algorithms
- Microphone