**Assignment#2-1: Escape**
**Due: 10/13/2015**

**Goal:** Escape from The Box.

Your robot will start within the black box with randomly placed obstacles within it. You have to try to escape from the box, while avoiding the obstacles. You cannot touch any of the obstacles. The robot is considered outside of the box when more than half of the robot is outside.

You also need a graphical display of the robot proximity sensor data in a meaningful way using Tkinter (does not have to be exact calibrated distance, but should be a good representation. I.e. closer is shorter or smaller, further is longer).
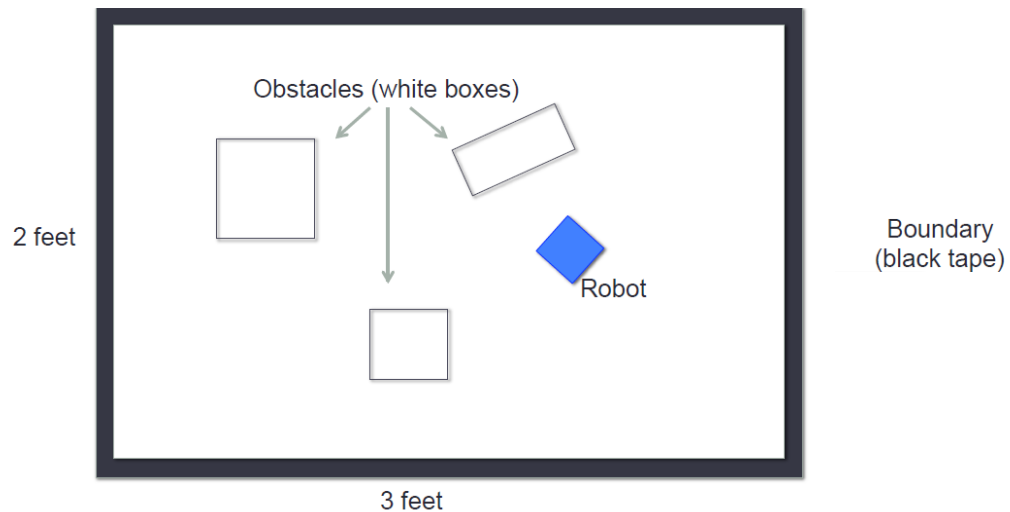


**Requirements:**
• Implement 2 or more "handlers" (each running on its own thread)
• Using 1 or more queues (for storing events)
• There are different ways you can implement "dispatcher" as discussed in class. Please put enough comments to make it clear how you implement it (or you can write up a description and submit with your homework)

**Setup:**
1. Download the assignment files from the course website
2. Download the Hamster API and copy the folder into your assignment root (into same folder as be_hamster.py, hamster_threads.py, …)
3. In your main python file, import the API properly for your platform
      If **OS X** use:
            *from HamsterAPI.comm_ble import RobotComm*
      If **Windows with dongle** use:
            *from HamsterAPI.comm_usb import RobotComm*

**Submission:**
Simply zip all your files and name your zip following the previous naming convention:

      sunetid_hw#_part#.zip