Administrivia:

- Additional screenings of “The Great Road Race” can be arranged. See the Head TA for details.

- Lab 2 (Object seeking in Gazebo) will be in the Sunlab Thursday during the class period

- C/C++ Help Sessions can be arranged for those who need additional familiarity with the programming language. See the Head TA for details

- A few words about the reasons for using Player/Stage/Gazebo
- From our last meeting, what makes a robot autonomous?
- Given perfect perception and actuation, is robotics a solved problem?
  - Could a robot make perfect decisions?
  - What does it mean to be perfect?
- How would you construct an autonomous control policy for exiting a maze with full observability of the world?
  - Assume you are given a top-down view of the world
  - Assume your starting location can be anywhere in the maze
  - Assume that the outcome of your motion can be accurately predicted
  - What type of problem is this?
- How would you construct an autonomous control policy for exiting a maze with first-person observability of the world?
  - Assume you are can only move to and see what is directly adjacent (North, South, East, West) to you
  - Assume cells can be uniquely identified, but their location in the world is unknown
- How would you construct an autonomous control policy for exiting a maze with full observability and without touching moving obstacles?
  - Is there an analogy to Tic-Tac-Toe?
- How would you construct an autonomous control policy for exiting a maze with first-person observability and without touching moving obstacles?
  - How would a deliberative approach to control work in this scenario with a large maze?
  - What are the advantages and disadvantages of deliberation?
  - Are there alternatives to deliberation?
- How could your controller handle multiple (potentially conflicting) objectives?
  - How would you cope with concurrently navigating towards a goal, fleeing from a ghost, avoid collisions with walls?
- Assuming the same maze, how could we use our knowledge from previous experience?
- Can we relate the above maze exiting examples to Pac-Man?
- Does the control policy need to change if N robots are playing Pac-Man together?