

91.451, Robotics II
Spring 2003
Prof. Yanco

Lab 2 Addendum

Out: Tuesday, 11 February 2003

Due: With rest of Lab 2 code and write up on Thursday, 20 February 2003
(**Note:** This is an extension to the original Lab 2 due date.)

Announcements:

- *Reminder:* There will be no class on Tuesday, 18 February 2003. The class will set a make up slot for a lecture when we meet on Thursday.
- *Office hour cancellations:* I will not be holding the regularly scheduled office hours on Tuesday, 18 February and Wednesday, 19 February due to travel. I will have access to e-mail on this trip, so send your questions this way.

Overview: In this addendum to Lab 2, you will be writing additional brains using direct control to learn more of Pyro. So far, you have copied code from the web site that will follow a wall on the left and tested it in simulation and on a real robot. Then you modified this code to better follow walls on the left and on the right, again testing in simulation then on a real robot.

For this addendum to the lab, you will write a direct control brain that will follow a person (or other object) at a hard coded distance. You do not need to have obstacle avoidance behavior in this brain. The robot should drive forward until it has an object that is the specified distance away from its front sonars (make this distance between 1 and 2 robots). It should then continue to move forward or backward to keep the object the required distance away from its sensors. While you don't need to implement obstacle avoidance, do check when backing up to make sure that you will not hit a wall in the back. If there is something too close in the back while you're trying to get away from something in the front, stop.

Turn in your commented code for this part and show your code running on the Pioneer to me by the lab due date.