LAB 1

Due: Tuesday, February 2nd, 5pm

The main purpose of this assignment is to set up logistics for groups and get familiar with the Fluke and Scribbler.

1. **Register your team on Canvas (even if you are a single-person team).** We will be using Canvas to track student groups. On the course website select People, the Lab Groups tab and add a group for your team. Group names are assigned based on your robot number (e.g., "Group 15" for Scribbler #15). Note that Canvas will allow each student to only be in one group, but you are free to move between groups. If you change groups in the middle of the semester, *be sure to update the Canvas page* to ensure accurate grade assignment and to enable us to track who has which robot. At the end of the semester you are responsible for returning the robot for which you are listed.

2. **Connect to the robot.** Piazza contains instructions for getting the robot working on Windows, OS X and Ubuntu, pinned under lab1. Follow the instructions for your operating system and verify that you are able to control the robot. One of the key components you will need is a way to communicate with a bluetooth device. If your laptop doesn't have built in bluetooth capabilities, you can purchase a USB-Bluetooth adapter for about $20 at a local bookstore/electronics shop.

3. **Write a wall following program to get familiar with the robot's software and abilities.** Write a test program that enables the robot to drive forward until it senses a wall, then turn and follow the wall, checking periodically that the wall is still there using the sensors. Have the robot stop if it loses the wall.

4. **Submit a video.** Submit a video of your wall following robot by uploading it under the Assignments tab on Canvas. The assignment will be set up as a group submission, so please indicate your group. As a backup, please also title your video as "Lastname1Firstname1_Lastname2Firstname2".

Grading Rubric

Registered group	5 points
Connected to robot	15 points
Robot stops when obstacle encountered	10 points
Robot follows wall	20 points