Test Document

Project: LIBERTY

Task: WIFI Data Transfer

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Date: 29/11/2017
Author: Edward Son
Editor: Andi-Camille Bakti

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McGill

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1.0 TESTS

1.1 Wifi data receiver test

Test 1: Wifi test

Date: 29/10/2017
Tester: Edward Son
Author: Edward Son

1) This test will validate the functionality of the one way wifi communication, in order to confirm that the brick can receive data over wifi from a server.
2) This test should print to the console all the data transmitted from the server and the server GUI should output a success message after transmission.
3) The main class in the project instantiates the wifi class using "`WifiConnection conn = new WifiConnection(SERVER_IP, TEAM_NUMBER, ENABLE_DEBUG_WIFI_PRINT);`". Then, in a try/catch method, the data is assigned to a map called "data", using "`data = conn.getData();`". Finally, a print statement is used to print this data to the brick: "`System.out.println("Map:\n", data);`". To run the server that transmits the data, we call "java -jar "DPM Server Fall 2017.jar" where the server jar file is located. Then, we input the test data as desired and click "start". The console in the GUI should then print the status of the operation.
4) The brick should print out a line that includes all the data sent to it, showing the variables and the value. The server GUI should display a success message. The brick's console should display the same data inputted from the server GUI.
5)

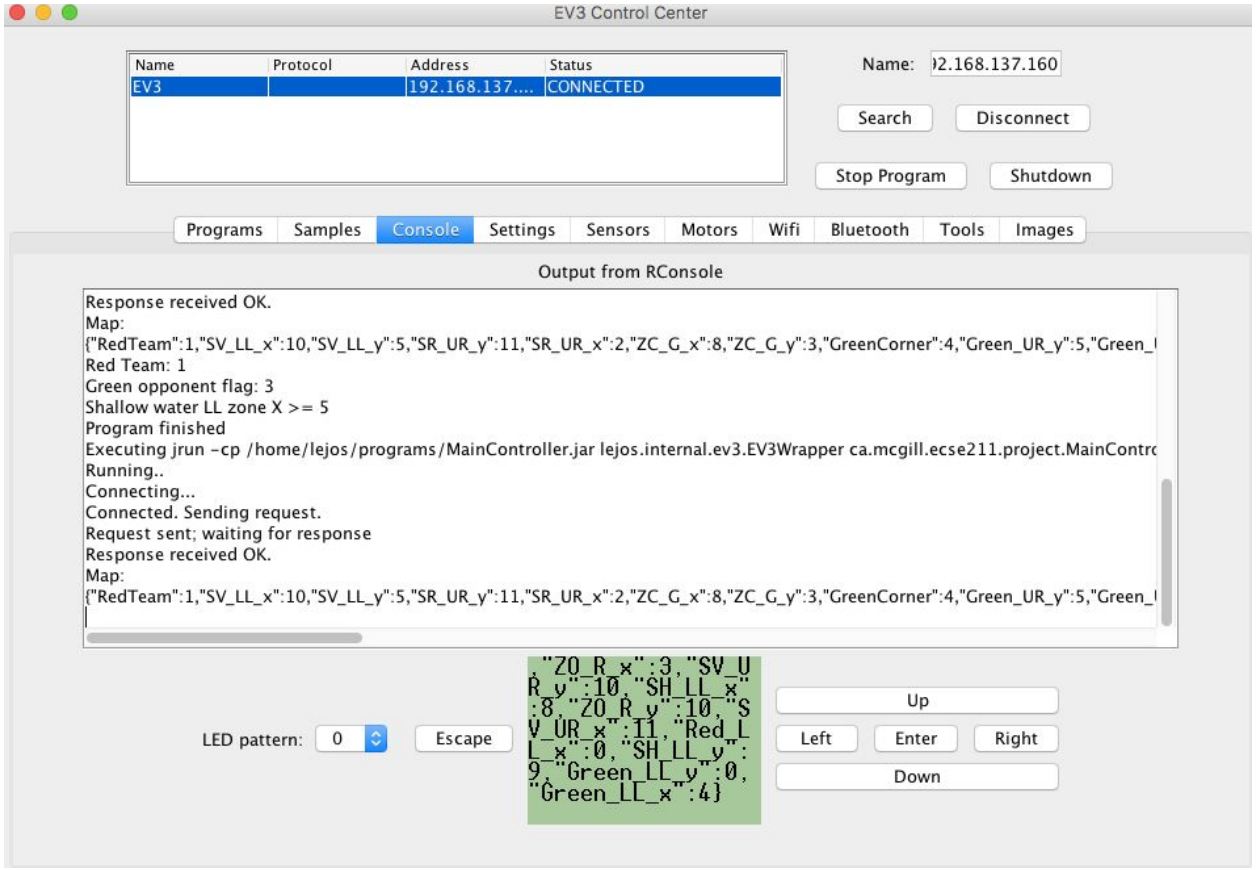


Figure 1: Console output from the brick

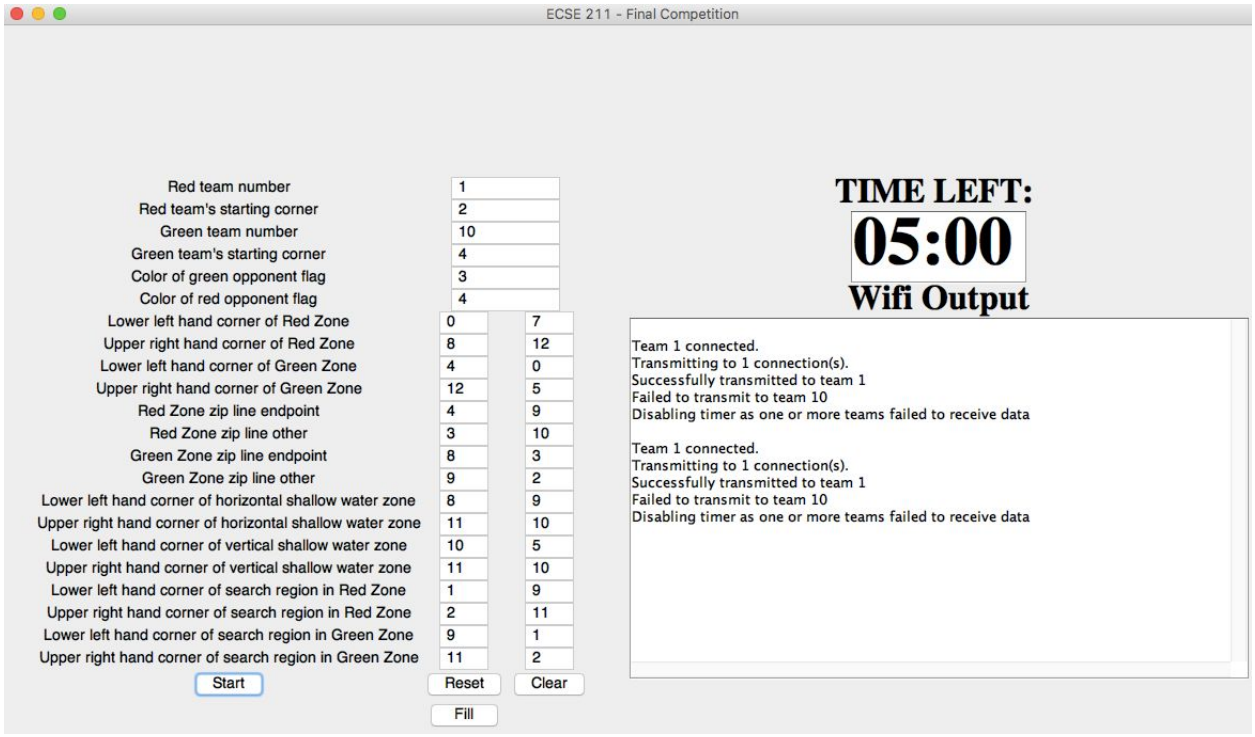
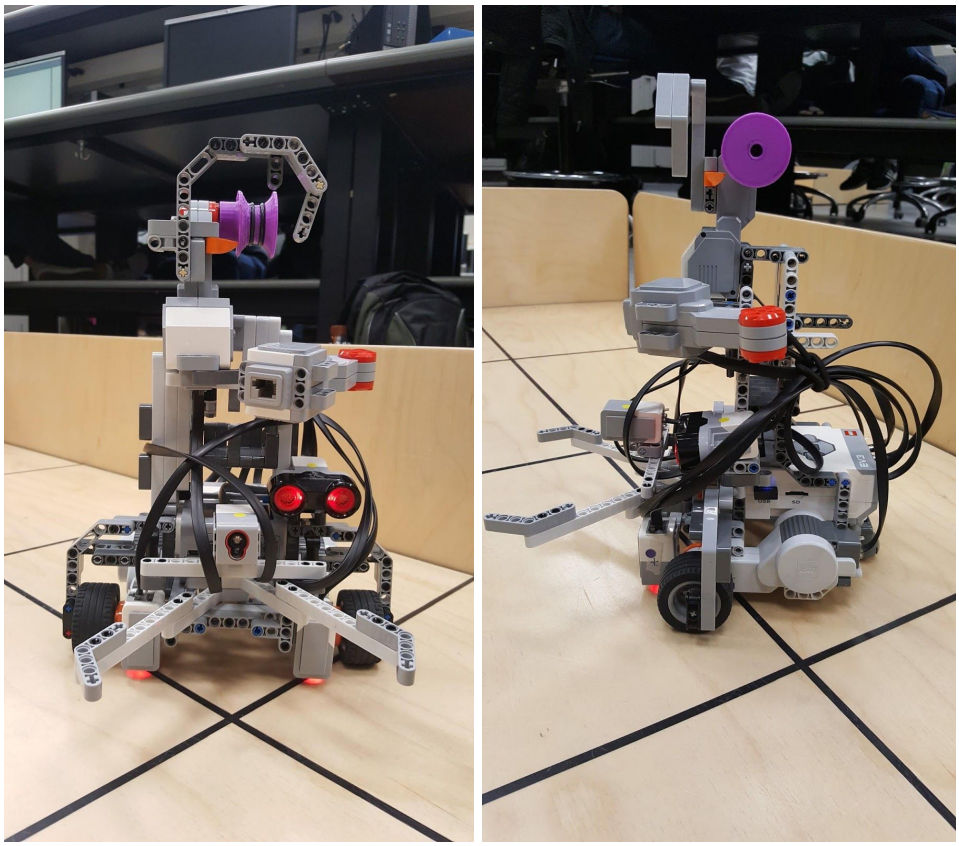


Figure 2: Server GUI output and data input

6) The brick successfully prints out the same data that was passed to it using the wifi class. The server GUI prints out a success message “Successfully transmitted to team 1” which indicates it succeeded in passing the data to our brick.
7) The one way wifi communication class works as needed, as it is able to receive data and manipulate as it needs to be for the final design project.

2.0 HARDWARE



See ***HARDWARE - 2.0.***

3. Source Code used

See github group repository at commit: `1372754b135e1a79c5094705bfeb243d03df185e`