Lab 9
Obstacle Course Assignment

Program your robot to navigate the obstacle course that has been set up (keep in mind that we may reconfigure the walls). Your robot should start at the back of the room, directly between the two last rows of desks. Your robot should stop after passing the last obstacle and before hitting wall. As a general rule, your robot should not hit anything.

Perform these steps on a lab computer (logged into Windows). Save the files on you T: drive, in a new directory in CSCI1111. Only one group member must create these files.

1. Create a file “Obstacle.java” with the following contents:

```
import edu.gwu.Jobot.agents.standalone.LejosAgent;
import lejos.nxt.*;

public class Obstacle extends LejosAgent
{
    public static void main(String[] args)
    {
        Obstacle george = new Obstacle();
        george.perform();
    }

    public void perform()
    {
        // Good luck!
    }
}
```

2. Remember to upload your program at the end of lab (don't forget the comment with your names and roles).

Sensor example code:

```
UltrasonicSensor sonic = new UltrasonicSensor(SensorPort.S3);
printLCD("Dist: " + sonic.getDistance());
try { Thread.sleep(200); } catch (Exception e) {} // Must wait 200 ms!
printLCD("Dist: " + sonic.getDistance());
```

Helpful methods:

```
void move(int amount)
void turn(int degrees)
if (Button.ESCAPE.isPressed()) { System.exit(0); }
```

Commands:

```
nxjc -cp C:\Jobot.jar Obstacle.java
nxj -cp .;C:\Jobot.jar Obstacle
```

Notes:
Remember to wait 200 ms between ultrasonic sensor readings.
To improve accuracy, you may have to average multiple sensor readings.
Don't forget to put the Button.ESCAPE check within your program's main loop in case you want to end the program early.