MSOE EECS EE-2931-Johnson

## **Project Compliance Requirements**

The system must have the following subsystems:

- Power subsystem
- Display subsystem
- Motor subsystem
- Line sensing subsystem
- Distance (obstacle detection) sub system

For the project compliance testing, we will primarily test the following:

- System physical compliance
  - Size
  - Weight
- Sub/System compliance
  - Electrical compliance
    - Power system
    - Voltage
  - Display subsystem
    - Display message
  - Motor subsystem (mobility)

(If you design a debug program your program must be able to perform each of the features below)

- Start
- Delay (5 second)
- Move forward (each motor)
- Move backward (each motor)
- Turn left (both motors at same time)
- Turn right (both motors at same time)
- Stop (both motors at same time)
- Sensing subsystem
  - Line sensing (each sensors)
  - Obstacle sensing (each sensor)
- System behavioral compliance:

(If you design a debug program your program must be able to perform the behavior below)

- o Line sensing, stop, turns (in the ring)
- Obstacle sensing, stop, move (in the ring)

## **Requirements:**

- Set up and ready at the start of your time slot
- Have the followings documents at the beginning of the test session.
  - Your test plan report.
  - A printed copy of your program (implement all system's behavior) with your name embedded in the program as the designer.
  - A printed copy of the system block diagram.
  - A printed copy of the system schematic diagram.
  - A printed copy of your blank compliance grading chart to complete during the test session
- Be ready to answer questions related to your robot (design, hardware, software).