**Activity 6 to be done individually:** Create a program that moves the vehicle moving around a room while avoiding obstacles.

Press a button to start and another to stop or pause the program.

Provide user instructions on the LCD

The vehicle should not crash into walls or other solid objects.

The vehicle should be able to exit from a three sided obstacle, similar to a canyon (three walled dead-end).

When testing the IR sensor, write the output to a text file.

All library functions to have tests.

**Deliverables:**

Students to develop their structure in the Sprint documents

**Possible structure:**

Students to develop in Sprint documents

**Focus:**

Completing the task, document how deliverables were developed and achieved, how goals were met, what debugging occurred during the process

**Internet Of Things (IOT) Application**

Home security, robot vacuums

**Challenge Activity: Get the vehicle to accurately follow a line while providing visual and/or audio output**