DESIGN EXPERIENCE WITH DEVICES (DEWD)

EE - 2800, Sec. 01, FALL 2018, FINAL Raspberry Pi Project, Total Points: 75
Stages 2 (Points: 20): Due on 12/18/2018 by 4:00 PM

Stage. 2

The following task has to be implemented on the Mobile platform (Tank).

- Add wiring for an Ultrasonic sensor to the Stage 1 circuit. Examine the given template code – MobilePlatform.py to determine which GPIO pins should be used to (Points: 5)
- Using the Object-oriented programming template code in **MobilePlatform.py, Bridge.py, RotationDevices.py, and SonicSensors.py**, implement the following tasks (Points: 15):
    - Complete the code for the Tank to apply brake only while traveling forward when the Ultrasonic sensor senses an obstacle within a distance of 20 cms.

Stage 2 Submissions:

- A video depicting the implemented functions satisfying the requirements below:
    - The video should have an introduction (team members announce their full names)
    - The video should show the Tank operating on the floor.
    - Every operation should be demonstrated with an audio announcement of each operation to be performed.
- Commented Python code: If new code implemented in the template files are not commented, a penalty of 5 points will be assessed.