**EGR326 PreLab3 F22**

Proximity sensor demo

A design requirement of your dashboard is to warn the user of any object within 36 inches of the rear of the vehicle. This can be accomplished using your proximity sensor (HC-SR04)

To prepare for this week’s lab:

1. Start out by learning the basics of how the proximity sensor works. This site provides a good overview https://components101.com/ultrasonic-sensor-working-pinout-datasheet.
2. Download the data sheets for the proximity sensor from Blackboard. NOTE: the supply voltage for the module requires 5V.
3. The input and output also use 5V logic **and are not directly compatible with MSP432** logic levels. This will require logic shifting which will be discussed in class. Draw a schematic diagram of how the sensor will be wired to the MSP432 (include I/O pin designations) for part I. Draw a second schematic to represent part II.

**DO NOT drive the proximity sensor with the MSP432 without verifying the wiring- the MSP432 can be damaged if it is not connected correctly!**