

CpE301 - Design Assignment 4

DUE: See Website

The goal of the assignment is to develop the above code to do the following:

1. Write an AVR C program to measure the distance using the HC-SR04 ultrasonic module.
2. Use the Timer Capture function to determine the ECHO capture pulse.
3. Display the results every 1 sec on the serial terminal.

Submission:

The following are required for successful completion of the design assignment:

- a. AVR C code that has been compiled and working submitted to the github repository.
- b. A word/pdf document that contains the C/assembly code well documented along with the kiCAD schematics with components used connected to the ATmega328P/PB.
- c. In the word/pdf provide the screenshots of 1) successful compilation, 2) snapshot of the demo circuit, 3) screenshot of demo outputs, and 4) video links for each task.
- d. Provide a text file in your github with links to youtube for all tasks.

Evaluation Rubrics:

See class website for the DA evaluation rubrics.