

CpE301 - Design Assignment 4A

DUE: See Website

Design Assignment 4A:

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

1. Write an AVR C program to control the speed of the DC Motor using a potentiometer connected to PC0. Use an interrupt on a button (PC1/2/3) to stop and start the motor at each click. The minimum speed of the motor should be 0 when pot is at minimum position and at maximum position should be 95% of PWM value.

Submission:

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

- a. AVR C code that has been compiled and working.
- b. The C code should be well documented with explanation of every instruction.
- c. A word document that contains the flow chart of the assembly code along with the snapshots of the schematics, components connected on the breadboard and screenshots.

Points:

Task 1: 100%. (Code=60%, Documentation=20%, Verification/Snapshots=20%)

Evaluation Rubrics:

See class website for the DA evaluation rubrics.