

ECE 4760: Homework 4

1. Describe in detail why there is a diode across the motor in lab 4. Include direction of inductive current flow during each part of the PWM cycle.
2. Explain why you need hysteresis on the comparator in lab 4.
3. What MCU hardware is used by ProtoThreads?
Can you use timer2 for your own code? How about timer3 and timer5?
4. Describe how you are going to break down the exercise into threads.
5. Describe the variables which will need to be shared between threads.
6. Assuming 1000 rpm for the fan motor, what prescalar setting will you use on the capture timer?

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