## Midterm 2 Study Guide

While the second midterm is comprehensive, covering everything from the first day of class, the focus will be on material covered between the first and second midterm.

- <u>Subroutines</u>
- ATmega328P GPIO
- ATmega328P Timers
- <u>Interrupts</u> (External and <u>Timer</u>)
- <u>Indirect Addressing Mode</u> (*if covered in lecture*)

In addition to the material provided with the lectures, labs, and textbook, check out these resources:

<u>Midterm II Review Questions</u> contains nearly 100 questions to help you prepare. Roll over the question in your browser to see the answer. You are not responsible for indirect addressing mode questions contained in the "AVR Addressing Modes including Indirect" section of this document. For more addressing mode help review the <u>Load-Store Worksheet</u>.

You may also want to look at this <u>Design Example</u> to help you understand the timers.

For a few practice problems on External Interrupts see page 15 of the External Interrupts Lecture.

Finally, some questions covering material learned earlier in the semester will be included in the Midterm: <u>Looping</u>, <u>Branching</u>, <u>ALU and SREG</u>, Load-Store Programming, and Introductory material.

Many of you had problems with the programming question(s) contained in the first midterm. For that reason I have put together dozens of simple to complex <u>Programming Problems</u> for you to work on.