## **Midterm Outline**

- 1. Scheduling \*\*\*\*
  - a. TimerISR()
  - b. Time overrun
  - c. Worst case execution time (10.3)
  - d. Utilization (10.2)
  - e. Usage diagrams (10.4)
  - f. Prescaler
  - g. Priority based scheduling
  - h. Deadline based scheduling
  - i. Preemptive scheduler
- 2. Microcontrollers & circuits
  - a. Power consumption given frequency and voltage
  - b. Supercap, capacitors, resistors and transistors
  - c. ADC
  - d. DAC
  - e. Comparator
  - f. External(Shift) Registers
  - g. LED matrix
  - h. Joystick
  - i. UART & USART
  - i. SPI
- 3. Know how to code
  - a. Bit-wise operations
  - b. Ability to identify functionality of code
- 4. State machine design
- 5. How to debug
- 6. VIdeos