CECS 285: Lab 6

OBJECTIVES:

- Use timers to generate time delays

Modify your program from Lab 5 to generate time delays using Timer1 in mode 1.

Following the example given in class:

- Ensure the first instruction of your program is a jump to the main program section to bypass the interrupt vector table section of ROM. The main program section will begin at ROM location 0x30.
- Configure the timer in the beginning of your main program section. The beginning of the main program section is where initialization and configuration instructions are placed such as configuring output ports, setting timer modes, initializing variables, and other configuration instructions we'll see later.
- Make a subroutine that will use timer 1 in mode 1 and poll the timer 1 flag inside of loops to generate time delays. Then you can pass in an R5 value to control the time delay generated by the subroutine like in Lab 5.

switches	**time delay**
down, down	a quarter second
down, up	a half second
up, down	1 second
up, up	2 seconds

Test your program on hardware and when you are ready demonstrate proper functionality of your project for the instructor.

Deliverables:

- Your commented assembly language program source code. The following commenting criteria must be met
  - Comment each configuration instruction
  - Comment blocks of code otherwise