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Lab 4

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In this lab we used interrupts service routines to create a timer on the seven segment displays, have leds shift on every timer interrupt and display the time on the LCD display.

As stated in the lab manual the minimum amount of time it takes a character to be sent to the display is 2 msec. This means that in 1/10 second you could send 50 characters. This is because 1/10 second is 100 milliseconds and 100 milliseconds/ 2 milliseconds per character is 50.

In the lab manual, we are also asked why it is important to set the stack pointer before enabling interrupts. This is due to the fact that we need to initialize the stack pointer in order to use it to push and pop registers. Pushing and popping registers is very important in ISRs as an interrupt can be called at any time.

Attached below is the code written for this lab. However, we were not able to find the issue with what was causing part 2 of the lab to work.