

EE1910 Lab 7: Functions, pointers and Register I/O

Objectives

- Create a program that uses functions, pointers, and Register driven I/O

Prelab

- Review the button and LED notes
- Review the button debounce notes
- Review the LED Bar specification
- Review the notes on functions, pointers, and Registered I/O

student
check off

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Assignment

Part1: Create an MSP432 program that reads the input from two external buttons. The first button will be used to advance the LED Bar one position (only 1 position lit at a time), the second button will be used to reset the LED Bar to the first position. The buttons must not bounce (1 push → only one advance). Your program must use functions, pointers and registered I/Os. Your solution must also debounce the buttons.

~~Part 2: Create an MSP432 program that reads the input from two external buttons. The first button will be used to provide a count (push 6 times → count = 6. The second button will be used to stop the count and display the value on the LED bar. (a count of 5 will cause the 0th and 2nd LED to be lit. The buttons must not bounce (1 push → only one increment). Your program must use functions, pointers and registered I/O. Your solution must also debounce the buttons. —~~

Check Off

- Demo and document your advance code program 50%
- Demo and document your count program 50%

Checkoff due by 4:00 pm Friday of the lab week (in-person or via Teams chat)

Submit (in the box): flow diagram(2), schematic(2), and code(2) - due 4:00 pm, Friday of the lab week.