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ECE-447-201

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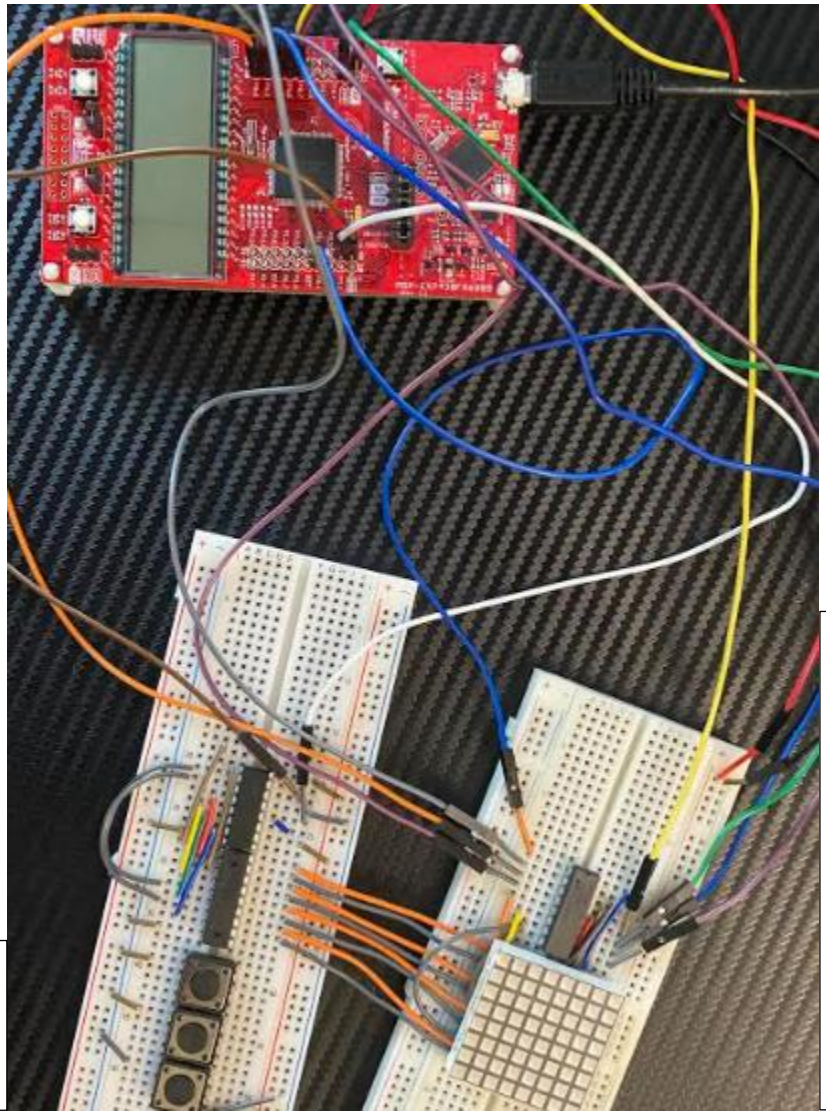
Lab 2: LED Matrix

Introduction: The purpose of this lab is to implement a design on a LED matrix using c code. The main inputs are the 8 pins that power each of the columns in the matrix while the 2 pins that connect to the shifter are used as a clock and a serial input. The shifter controls the power going to the rows of the LED matrix.

Hardware Design:



Breadboard on left

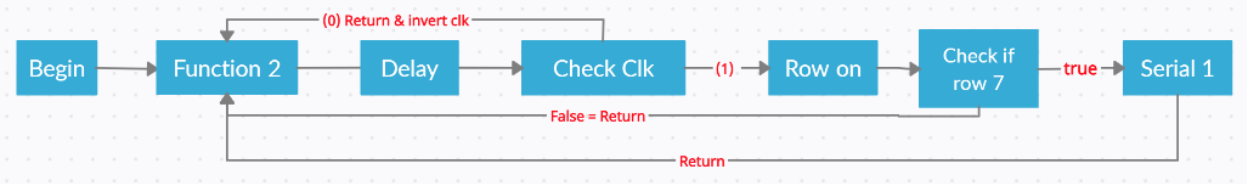
Brown: P2.7
White: P2.6

Breadboard on right

Right side of chip.
Purple: P9.0
Blue: P9.1
Green: P9.2
Yellow: P9.3

Left side of chip.
Purple: P8.7
Orange: P9.6
Gray: P9.5
Blue: P9.4

Software Design:



Conclusions: I was not able to show the diagram all at the same time I managed to show the diagram row by row. My issue was I had no idea what to do with the created unsigned char I was not sure what I need to set that equal to light up the entire matrix at the same time.

Questions: N/A

Demo Video: https://youtu.be/VUrXjn-RRDI