University of California, Riverside
Mechanical Engineering Department
ME133: Introduction to Mechatronics

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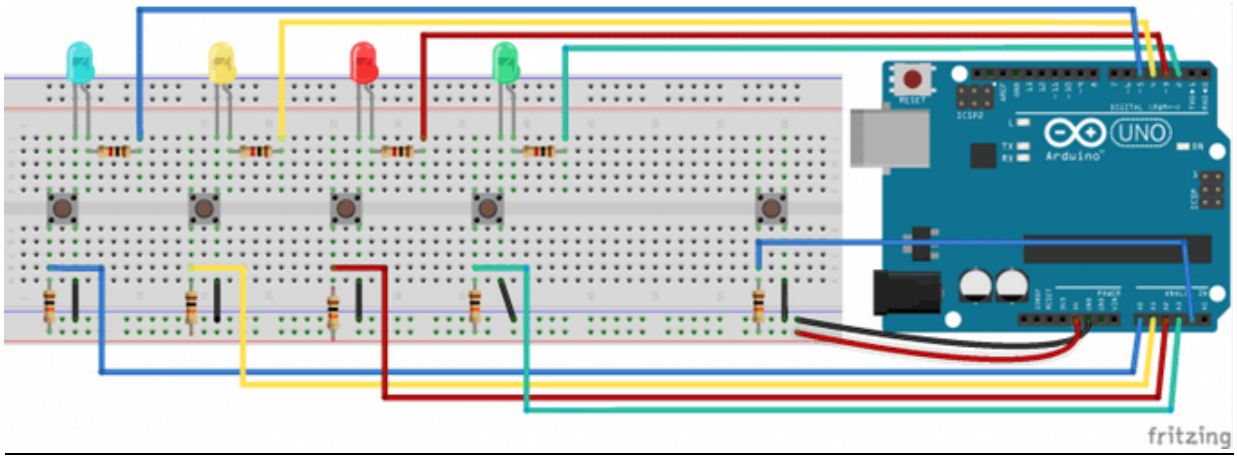
Lab 6: February 21, 2018

Lab Report Due on February 27, 2018

SECTION 6: GAME CHALLENGE

Write an Arduino program to play a game of *Simon Says*. The program starts each round of the game by flashing all LEDs several times. The program flashes the four LEDs in a random sequence of length n. The player repeats the sequence by pressing the buttons next to the LEDs. The program verifies that the sequence of pressed buttons equals the sequence of flashed LEDs. If the sequence is correct, the program flashes twice the green LED, generates a sequence of n+1 LEDs, and waits for the user to enter the sequence by pressing the buttons. If the sequence entered by the player is not correct, then the program flashes four times all LEDs, and starts over. The game terminates with n = 8, and it shows a winning flashing pattern.



Bill of Materials:

5x pushbuttons
1x Blue led
1x Yellow led
1x Red led
1x Green Led
4x 1k resistors
4x 10k resisors