

University of Massachusetts Dartmouth
Department of Electrical and Computer Engineering

ECE 160
Arduino Lab 2

Name: buttons-hold.ino
Due: see <http://ece160.org>

Write a program to turn on a LED while the button is pressed. Switch A5 should control the Red LED, switch A4 the Green, and switch A3 the Blue.

By pressing combinations of buttons, you should be able to create 8 different colors on the LED: Black, Red, Green, Blue, Magenta, Cyan, Yellow, and White, based on the color table in Arduino Lab 1.

The buttons are connected to PORTC as follows:

Button	Port C bit	Value when NOT pressed
A5 (leftmost)	c5	1
A4	c4	1
A3 (rightmost)	c3	1

Note that when the button is NOT pressed, the value of that bit on the port is 1. When the button is pressed, it is zero. Each of these bits on PORTC should be set to an input, by writing a 0 into bits 3,4,5 of DDRC. These bits of PORTC may then be read via PINC. You may refer to Arduino Lab 1 for more info on DDRx, PORTx, and PINx. Also refer to Arduino Lab 1 (or your code for lab 1) for info on which bit of PORTB controls which color LED.

This must be checked of by TA, AND submitted to your M: drive

Student Name: _____

TA Signature: _____

Date/Time: _____

Checksum: _____