/\* SPH3U SPH4C LEDs Blinking Sample 2018 02 24

\*/

void setup()

{

pinMode(12, OUTPUT);

pinMode(11, OUTPUT);

pinMode(10, OUTPUT);

pinMode(9, OUTPUT);

pinMode(8, OUTPUT);

pinMode(7, OUTPUT);

}

void loop()

{

// LR = Left Red LED on digital pin 12 (red wires)

// LY = Left Yellow LED on digital pin 11 (yellow

// wires)

// LG = Left Green LED on digital pin 10 (green

// wires)

// MG = Middle Green LED on digital pin 8 (orange

// wires)

// MB = Middle Blue LED on digital pin 9 (white

// wires)

// RRRB = Right Red and Right Blue LEDs on digital

// pin 7 (blue wires)

// LR, LY, LG, MG, MB are each in series with a 330

// ohm resistor

// RRRB Right Red in series with a 330 ohm resistor

// and Right Blue in series with a 330 ohm resistor

// are then in parallel with each other

// First section of code

// This code will turn on LR for 1500 ms

// Then turn off LR and turn on LG for 2000 ms

// Then turn off LG and turn on LY for 1000 ms

// Then turn on LR for 500 ms

// Then turn on LR, LY and LG for 500 ms

// This ends the left side red, yellow and green

// LEDs

digitalWrite(12, HIGH);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(1500); // Wait for 1500 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, HIGH);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(2000); // Wait for 2000 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, HIGH);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(1000); // Wait for 1000 millisecond(s)

digitalWrite(12, HIGH);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, HIGH);

digitalWrite(11, HIGH);

digitalWrite(10, HIGH);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(500); // Wait for 500 millisecond(s)

// Second section of code

// This code will turn on RRRB for 3000 ms

// and alternately blink MB and MG at 500 ms

// intervals during the 3000 ms

// then turn off RRRB (RRRB is a pair of LEDs in

// parallel,

// one red and one blue)

// the turn on LR, LY, and LG for 500 ms

// to indicate the end of this subroutine

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, HIGH);

digitalWrite(8, LOW);

digitalWrite(7, HIGH);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, HIGH);

digitalWrite(7, HIGH);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, HIGH);

digitalWrite(8, LOW);

digitalWrite(7, HIGH);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, HIGH);

digitalWrite(7, HIGH);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, HIGH);

digitalWrite(8, LOW);

digitalWrite(7, HIGH);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, HIGH);

digitalWrite(7, HIGH);

delay(500); // Wait for 500 millisecond(s)

digitalWrite(12, HIGH);

digitalWrite(11, HIGH);

digitalWrite(10, HIGH);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(500); // Wait for 500 millisecond(s)

// This code will turn all LEDs on and off rapidly

// three times to indicate the end of the complete

// loop

digitalWrite(12, HIGH);

digitalWrite(11, HIGH);

digitalWrite(10, HIGH);

digitalWrite(9, HIGH);

digitalWrite(8, HIGH);

digitalWrite(7, HIGH);

delay(300); // Wait for 300 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(300); // Wait for 300 millisecond(s)

digitalWrite(12, HIGH);

digitalWrite(11, HIGH);

digitalWrite(10, HIGH);

digitalWrite(9, HIGH);

digitalWrite(8, HIGH);

digitalWrite(7, HIGH);

delay(300); // Wait for 300 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(300); // Wait for 300 millisecond(s)

digitalWrite(12, HIGH);

digitalWrite(11, HIGH);

digitalWrite(10, HIGH);

digitalWrite(9, HIGH);

digitalWrite(8, HIGH);

digitalWrite(7, HIGH);

delay(300); // Wait for 300 millisecond(s)

digitalWrite(12, LOW);

digitalWrite(11, LOW);

digitalWrite(10, LOW);

digitalWrite(9, LOW);

digitalWrite(8, LOW);

digitalWrite(7, LOW);

delay(300); // Wait for 300 millisecond(s)

}