/\* 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)

}