/\* light bar controller, strip of 25 LEDs in a line

 \*

 \* 8/3/2019 Coded by Pat McMahon.

 \* A011- 25 LED Light Bar-Addressable-Code

 \* purple, white, brown, pink, orange select group - anodes

 \* grey, green, red, yellow, blue select within group - cathodes

 \* colour of cathode wires match LED (grey for orange LED)

 \* to light an LED, anode must be high, but cathode must be low

 \*/

int groups[] = {

 2, 3, 4, 5, 6

};

int indexes[] = {

 7, 8 ,9, 10 , 11

};

int delayTime=100;

int delay2000;

// the setup function runs once when you press reset or power the board

void setup() {

 // initialise 10 outputs for 5 x 5 matrix

 // loop over the pin arrays and set them all to output

 // also set all LOW

 for (int thisLed = 0; thisLed < 5; thisLed++) {

 pinMode(groups[thisLed], OUTPUT);

 digitalWrite(groups[thisLed], LOW); // turn anodes off

 pinMode(indexes[thisLed], OUTPUT);

 digitalWrite(indexes[thisLed], LOW); // turn cathodes off

 }

}

// the loop function runs over and over again forever

void loop() {

 for (int group = 2; group < 7; group++) { // cycle through groups of 5

 digitalWrite(group, HIGH); // enable cathode

 for (int index = 7; index < 12; index++) { // step through each group

 digitalWrite(index, LOW); // enable anode

 delay(delayTime);

 digitalWrite(index, HIGH);

 }

 digitalWrite(group, LOW); // turn anode off

 }

for (int group = 6; group > 1; group--) { // cycle through groups of 5

 digitalWrite(group, HIGH); // enable cathode

 for (int index = 11; index > 6; index--) { // step through each group

 digitalWrite(index, LOW); // enable anode

 delay(delayTime);

 digitalWrite(index, HIGH); // turn anode off

 }

 digitalWrite(group, LOW); // disable this group

 }

}