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// Define Pins

#define BLUE 3

#define GREEN 5

#define RED 6

void setup()

{

pinMode(RED, OUTPUT);

pinMode(GREEN, OUTPUT);

pinMode(BLUE, OUTPUT);

digitalWrite(RED, HIGH);

digitalWrite(GREEN, LOW);

digitalWrite(BLUE, LOW);

}

// define variables

int redValue;

int greenValue;

int blueValue;

// main loop

void loop()

{

#define delayTime 10 // fading time between colors

redValue = 255; // choose a value between 1 and 255 to change the color.

greenValue = 0;

blueValue = 0;

// this is unnecessary as we've either turned on RED in SETUP

// or in the previous loop ... regardless, this turns RED off

// analogWrite(RED, 0);

// delay(1000);

for(int i = 0; i < 255; i += 1) // fades out red bring green full when i=255

{

redValue -= 1;

greenValue += 1;

// The following was reversed, counting in the wrong directions

// analogWrite(RED, 255 - redValue);

// analogWrite(GREEN, 255 - greenValue);

analogWrite(RED, redValue);

analogWrite(GREEN, greenValue);

delay(delayTime);

}

redValue = 0;

greenValue = 255;

blueValue = 0;

for(int i = 0; i < 255; i += 1) // fades out green bring blue full when i=255

{

greenValue -= 1;

blueValue += 1;

// The following was reversed, counting in the wrong directions

// analogWrite(GREEN, 255 - greenValue);

// analogWrite(BLUE, 255 - blueValue);

analogWrite(GREEN, greenValue);

analogWrite(BLUE, blueValue);

delay(delayTime);

}

redValue = 0;

greenValue = 0;

blueValue = 255;

for(int i = 0; i < 255; i += 1) // fades out blue bring red full when i=255

{

// The following code has been rearranged to match the other two similar sections

blueValue -= 1;

redValue += 1;

// The following was reversed, counting in the wrong directions

// analogWrite(BLUE, 255 - blueValue);

// analogWrite(RED, 255 - redValue);

analogWrite(BLUE, blueValue);

analogWrite(RED, redValue);

delay(delayTime);

}

}