Code:

#include <Adafruit\_NeoPixel.h>

#include <Ultrasonic.h>

#define PIN 6

//#define NUMPIXELS 64

#define PIXEL\_AMOUNT 64

#define BRIGHTNESS 150

int distance1 = 0;

int distance2 = 0;

int distance3 = 0;

int distance4 = 0;

int dist1 = 0;

int dist2 = 0;

int dist3 = 0;

int dist4 = 0;

int d1 = 0;

int d2 = 0;

int d3 = 0;

int d4 = 0;

int row\_excel = 5;

Adafruit\_NeoPixel strip = Adafruit\_NeoPixel(64, 6, NEO\_GRB + NEO\_KHZ800);

Ultrasonic ultrasonic1(1, 0); // An ultrasonic sensor HC-04

Ultrasonic ultrasonic2(5, 4); // An ultrasonic sensor HC-04

Ultrasonic ultrasonic3(10, 11); // An ultrasonic sensor HC-04

Ultrasonic ultrasonic4(8, 7); // An ultrasonic sensor HC-04

int showType = 3;

void setColor(uint32\_t c) {

for(uint16\_t i = 0; i < strip.numPixels(); i++) {

strip.setPixelColor(i, c);

}

strip.show();

}

void setup() {

Serial.begin(9600);

strip.begin();

strip.show();

Serial.println("CLEARDATA");

Serial.println("Time, Sensor 01, Sensor 02, Sensor 03, Sensor 04");

}

void loop() {

{

row\_excel++;

Serial.print("DATA,TIME,");

Serial.print(",");

if (ultrasonic1.read(CM)< 30)

//Serial.print("Sensor 01: ");

Serial.print(ultrasonic1.read(CM)); // Prints the distance on the default unit (centimeters)

//Serial.println("cm");

Serial.print(",");

if (ultrasonic2.read(CM)<30)

//Serial.print("Sensor 02: ");

Serial.print(ultrasonic2.read(CM)); // Prints the distance on the default unit (centimeters)

//Serial.println("cm");

Serial.print(",");

if (ultrasonic3.read(CM)<30)

//Serial.print("Sensor 03: ");

Serial.print(ultrasonic3.read(CM)); // Prints the distance in inches

//Serial.println("cm");

Serial.print(",");

if (ultrasonic4.read(CM)<30)

//Serial.print("Sensor 04: ");

Serial.print(ultrasonic4.read(CM)); // Prints the distance in inches

//Serial.println("cm");

Serial.print(",");

Serial.println(row\_excel);

delay(100);

distance1 = ultrasonic1.read();

distance2 = ultrasonic2.read();

distance3 = ultrasonic3.read();

distance4 = ultrasonic4.read();

dist1 = ultrasonic1.read();

dist2 = ultrasonic2.read();

dist3 = ultrasonic3.read();

dist4 = ultrasonic4.read();

d1 = ultrasonic1.read();

d2 = ultrasonic2.read();

d3 = ultrasonic3.read();

d4 = ultrasonic4.read();

}

// 1 line

if ( distance1 >= 4 && distance1 <= 6 )

strip.setPixelColor(0, strip.Color(127, 127, 127));

else if ( distance1 >= 7 && distance1 <= 9 )

strip.setPixelColor(1, strip.Color(127, 127, 127));

else if ( distance1 >= 10 && distance1 <= 12 )

strip.setPixelColor(2, strip.Color(127, 127, 127));

else if ( distance1 >= 13 && distance1 <= 15 )

strip.setPixelColor(3, strip.Color(127, 127, 127));

else if ( distance1 >= 16 && distance1 <= 18 )

strip.setPixelColor(4, strip.Color(127, 127, 127));

else if ( distance1 >= 19 && distance1 <= 21 )

strip.setPixelColor(5, strip.Color(127, 127, 127));

else if ( distance1 >= 22 && distance1 <= 24 )

strip.setPixelColor(6, strip.Color(127, 127, 127));

else if ( distance1 >= 25 && distance1 <= 27 )

strip.setPixelColor(7, strip.Color(127, 127, 127));

// 2 line

else if ( d1 >= 4 && d1 <= 6 == d2 >= 4 && d2 <= 6 )

strip.setPixelColor(8, strip.Color(127, 127, 127));

else if ( d1 >= 7 && d1 <= 9 == d2 >= 7 && d2 <= 9 )

strip.setPixelColor(9, strip.Color(127, 127, 127));

else if (d1 >= 10 && d1 <= 12 == d2 >= 10 && d2 <= 12 )

strip.setPixelColor(10, strip.Color(127, 127, 127));

else if (d1 >= 13 && d1 <= 15 == d2 >= 13 && d2 <= 15 )

strip.setPixelColor(11, strip.Color(127, 127, 127));

else if (d1 >= 16 && d1 <= 18 == d2 >= 16 && d2 <= 18 )

strip.setPixelColor(12, strip.Color(127, 127, 127));

else if (d1 >= 19 && d1 <= 21 == d2 >= 19 && d2 <= 21 )

strip.setPixelColor(13, strip.Color(127, 127, 127));

else if (d1 >= 22 && d1 <= 24 == d2 >= 22 && d2 <= 24 )

strip.setPixelColor(14, strip.Color(127, 127, 127));

else if (d1 >= 24 && d1 <= 27 == d2 >= 25 && d2 <= 27 )

strip.setPixelColor(15, strip.Color(127, 127, 127));