#include <Adafruit\_NeoPixel.h>

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//Modified from Tinkercad starters

// First you need to go to sketch>include library>manage Libraries>install **Adafruit NeoPixel** library.

// This Code is for Pat's 16 (4x4) square neopixel (WS2812)LED

// You can change the Brightness (10), Delay (500) millisecond duration and you need to change the number from (16) to the number of Neo Pixels you are using.

//+5V on Neopixel to 5V on Uno.

//Gnd on Neopixel to Gnd on Uno.

//Din on Neopixel to D2 on Uno.

#define PIN 2 // input pin Neopixel is attached to

#define NUMPIXELS 16 // Change for the number of neopixels in strip

Adafruit\_NeoPixel pixels = Adafruit\_NeoPixel(NUMPIXELS, PIN, NEO\_GRB + NEO\_KHZ800);

Adafruit\_NeoPixel setBrightness(10); // change the (10) for a brightness value from 0 to 255

int delayval = 500; // Change for the timing delay in milliseconds between illuminations

int redColor = 0;

int greenColor = 0;

int blueColor = 0;

void setup() {

 // Initialize the NeoPixel library.

 pixels.begin();

}

void loop() {

 setColor();

 for (int i=0; i < NUMPIXELS; i++) {

 // pixels.Color takes RGB values, from 0,0,0 up to 255,255,255

 pixels.setPixelColor(i, pixels.Color(redColor, greenColor, blueColor));

 // This sends the updated pixel color to the hardware.

 pixels.show();

 // Delay for a period of time (in milliseconds).

 delay(delayval);

 }

}

// setColor()

// picks random values to set for RGB

void setColor(){

 redColor = random(0, 255);

 greenColor = random(0,255);

 blueColor = random(0, 255);

}