# Rainbow Blink

Code Walkthrough

```
Code Color Guide

Keyword Function Built-In Function Comments
```

#### Set up

Needed for all NeoPixels see Fade (WS2812) for more detail.

```
#include <Adafruit_NeoPixel.h>
#ifdef __AVR__
#endif
Adafruit_NeoPixel pixels(24, PIN, NEO_GRB + NEO_KHZ800);
```

#### **Define Pins**

Start by defining your pins so that they will not get mixed up. This also allows for us to use this definition in the remainder of the code.

```
#define pin 6
```

### Set Integers

The keyword int is a declaration of a variable whose datatype is an integer.

```
int colors[6][3] = {
    {255, 0, 0}, //red
    {255, 69, 0}, //orange
    {255, 255, 0}, //yellow
    {0, 255, 0}, //green
    {0, 0, 255}, //blue
    {100, 0, 100} //purple
};
```

### Void Setup

The void setup runs one time as soon as the program starts

```
void setup()
{
  pixels.begin();
  pixels.setBrightness(50);
}
```

## Void Loop

Runs in a constant loop

```
void loop() {
  NeoBlink(24, 200); //number of pixels and speed
}
```

## Void Runlights

Loops through the colors.

```
void NeoBlink(int num, int wait) {
  for (int i = 0; i < 6; i++) { //this loop runs through all 6 colors
    for (int r = 0; r < num; r++) {/*this loop picks the colors from our array*/
        pixels.setPixelColor(r, colors[i][0], colors[i][1], colors[i][2]);
    }
    pixels.show();
    delay(wait);
  }
}</pre>
```