



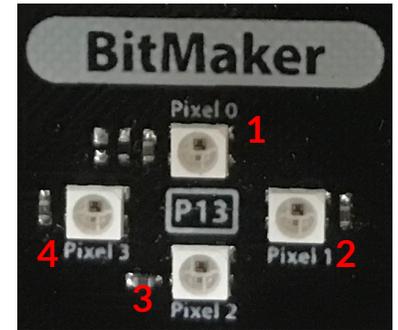
1 - Colorful LEDs

Added libraries: Libraries **+** NeoPixel Tone

Plug the micro:bit into the BitMaker. Enable the 4 NeoPixels on pin 13, using this “attach” block.

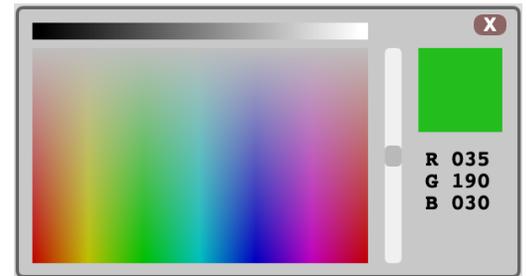
when started

attach 4 LED NeoPixel strip to pin 13 ▶



Now try this NeoPixel block. Click the “green circle” to select from the color picker palette, or drop an RGB or random color block into it.

set all NeoPixels color



The “rotate” block is handy for creating cool patterns. Try making some!

when started

attach 4 LED NeoPixel strip to pin 13 ▶

set NeoPixel 1 color

forever

wait 200 millisecs

rotate NeoPixels by 1

when button A pressed

comment set new color

clear NeoPixels

set NeoPixel 1 color random color

Challenge: This "for" loop causes the red color to fade out. Can you modify it to make a smooth fade transition from red to blue?

for i in 255

comment fade out - bright to off

set all NeoPixels color color r 255 - i g 0 b 0 (0-255)

wait 5 millisecs



2 - Ambulance

In this (Euro-style) Ambulance example, LEDs and sound are “in sync”.

```
when started
  attach 4 LED NeoPixel strip to pin 13
  set onOff to 
  forever
    if onOff
      siren
    else if 
      clear display
      clear NeoPixels
  
```

comment Use button A to toggle siren on and off

```
when button A pressed
  set onOff to not onOff

```

```
define siren
  set all NeoPixels color ●
  for i in 2
    set NeoPixel i color ●
  display
  play note F octave 1 for 500 ms
  rotate NeoPixels by 2
  display
  play note A# octave 1 for 500 ms

```

Challenge: Start with any music example, then dazzle your friends by incorporating NeoPixels that “dance” to the music in the script.