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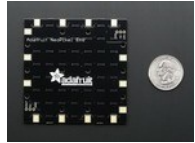
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Adafruit NeoPixel NeoMatrix 8x8 - 64 RGB LED Pixel Matrix

PRODUCT ID: 1487

We have a few different NeoPixel NeoMatrices to choose from. Please select one from the options below:

NeoPixel NeoMatrix 8x8 - 64 RGB LED Pixel Matrix

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[DESCRIPTION](#)

[TECHNICAL DETAILS](#)

DESCRIPTION

Put on your sunglasses before wiring up this LED matrix - 64 eye-blistering RGB LEDs adorn the NeoMatrix for a blast of configurable color. Arranged in an 8x8 matrix, each pixel is individually addressable. Only one microcontroller pin is required to control all the LEDs, and you get 24 bit color for each LED.

Wiring it up is easy: there are two 3-pin connection ports. Solder wires to the input port and provide 5VDC to the +5V and ground pins, then connect the DIN pin to your microcontroller. If you're using our NeoPixel Arduino library, use digital #6. You'll also need to make a common ground from the 5V power supply to the microcontroller/Arduino. Since each LED can draw as much as 60mA (thats up to 3.5 Amps per panel if all LEDs are on bright white!) we suggest our 5V 2A power supply. For most uses, you'll see about 1-2A of current per panel.

If, say, you need MORE blinky, you can chain these together. For the second shield, connect the

DIN connection to the first panel's DOUT. Also connect a ground pin together and power with 5V. There you go! You can chain as many as you'd like although after 4 or more panels you may run low on RAM if you're using an UNO. Watch your power usage too, you may need a 5V 10A power supply for so many of these!

There is a single data line with a very timing-specific protocol. Since the protocol is very sensitive to timing, it requires a real-time microcontroller such as an AVR, Arduino, PIC, mbed, etc. It cannot be used with a Linux-based microcomputer or interpreted microcontroller such as the netduino or Basic Stamp. Our wonderfully-written Neopixel library for Arduino supports these pixels! As it requires hand-tuned assembly it is only for AVR cores but others may have ported this chip driver code so please google around. An 8MHz or faster processor is required.

[Our detailed NeoPixel Überguide has everything you need to use NeoPixels in any shape and size. Including ready-to-go library & example code for the Arduino UNO/Duemilanove/Diecimila, Flora/Micro/Leonardo, Trinket/Gemma, Arduino Due & Arduino Mega/ADK \(all versions\)](#)

Adafruit NeoPixel NeoMatrix 8x8 - 64 RGB LED Pixel Matrix ([6:25](#))

TECHNICAL DETAILS

Details:

- Dimensions: 71.17mm / 2.8" x 71.17mm / 2.8" x 3.28mm / 0.12"
- Weight: 24.21g
- May ship with either WS2812B or SK6812-based LEDs. They are the same brightness, color and protocol

[Datasheet](#), [EagleCAD PCB files](#), [datasheets and more in the tutorial](#)



LEARN



[Adafruit NeoPixel Überguide](#)

Everything you always wanted to know about Adafruit NeoPixels but were afraid to ask



[Using NeoPixels with Netduino Plus 2](#)

It used to be impossible to use NeoPixels with Netduino, until now!



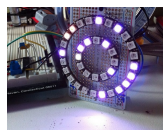
[LED Art with Fadecandy](#)

NeoPixels + Processing



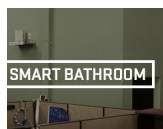
[NeoPixels on Raspberry Pi](#)

How to control NeoPixel LEDs with Python on a Raspberry Pi!



[The PICsellator](#)

Veni, vidi, blinki



[Smart Bathroom App](#)

Know when it's open for business.



Multi-tasking the Arduino - Part 3

Unleashing the power of the
NeoPixel!



NeoMatrix 8x8 Word Clock
using the NeoPixel NeoMatrix
8x8 to power a word clock!



Festive Feather Holiday Lights

Create festive holiday lights
powered by Adafruit's feather
boards!



MicroPython Displays: Drawing Text

How to write text on any
MicroPython display.



MicroPython Displays: Drawing Shapes

How to draw basic shapes on
pixel-based displays with
MicroPython!

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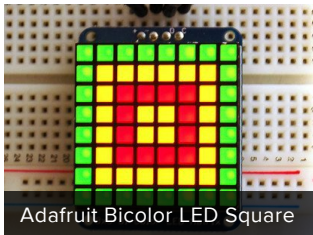
32x32 RGB LED Matrix



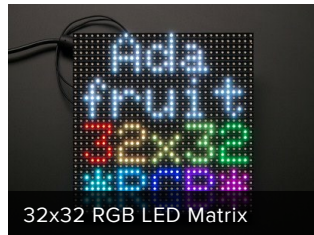
Medium 16x32 RGB LED



Adafruit NeoPixel Digital



Adafruit Bicolor LED Square



32x32 RGB LED Matrix



NeoPixel Ring - 16 x 5050



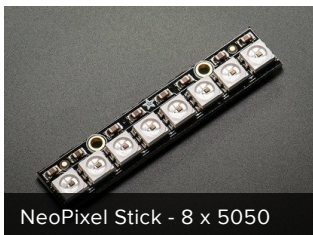
Adafruit NeoPixel Digital



Adafruit NeoPixel Digital



5V 10A switching power



NeoPixel Stick - 8 x 5050



Adafruit NeoPixel Shield for



Adafruit NeoPixel Digital

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