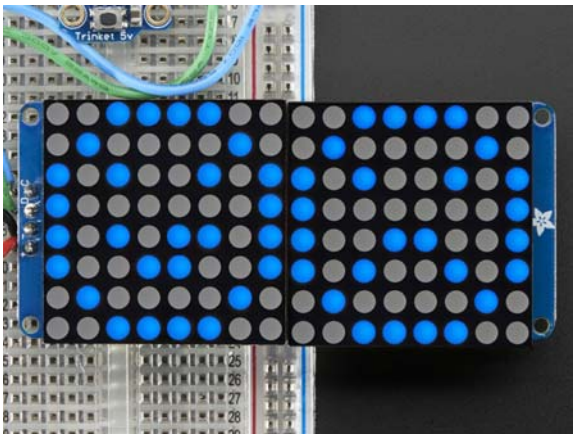
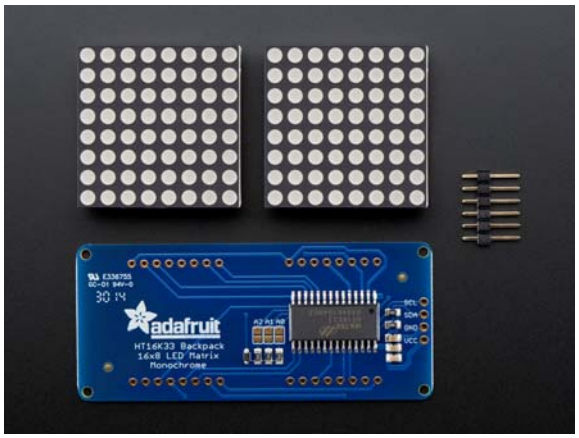
16x8 1.2" LED Matrix + Backpack - Ultra Bright Round Blue LEDs

PRODUCT ID: 2039





Description

What's better than a single LED? Lots of LEDs! And what's better than lots of LEDs? **TWO TIMES AS MANY LEDS!!!**

With the 16x8 LED Matrix Backpack we've doubled your project's matrix capacity by making it super easy to get two separate 8x8 matrices onto one handy board! Matrices like these are 'multiplexed' - so to control 64 LEDs you need 16 pins and to control 128 LEDs, you'd need 24 pins. That's a lot of pins, and there are driver chips like the MAX7219 that can control a matrix for you but there's a lot of wiring to set up and they take up a ton of space. Here at Adafruit we feel your pain! After all, wouldn't it be awesome if you could control two matrices without tons of wiring? That's where this lovely 16x8 LED matrix backpack comes in. It works perfectly with the matrices we stock in the Adafruit shop and makes adding a bright little display trivial.

The 16x8 backpack is also great for making scrolling displays or small video displays. In our example, we set it up so words flow from one matrix to the other - kind of like a sign in front of a miniature car dealership. We powered the demo with a Trinket - **not included** - so it all comes in a nice compact package.

The backpack uses a HT16K33 driver chip that does all the heavy lifting for you. This chip has a built in clock so they multiplex the display. It uses constant-current drivers for ultra-bright, consistent color **(the images above are photographed at the dimmest setting to avoid overloading our camera!)**, 1/16 step display dimming, all via a simple I2C interface. Each matrix backpack comes with three address-selection jumpers so you can connect up to 8 x 1.2" 16x8's together on a single I2C bus.

This kit comes with:

- A fully tested and assembled 16x8 1.2" LED Backpack
- **2x** ultra-bright round 8x8 blue matrices
- 4-pin header

A bit of soldering is required to attach the two matrices onto the backpack but its very easy to do and only takes about 10 minutes.

Of course, in classic Adafruit fashion, we also have a detailed tutorial showing you how to solder, wire and control the display. We even wrote a very nice library for the backpacks so you can get running in under half an hour, displaying images on the matrix or numbers on the 7-segment. If you've been eying matrix displays but hesitated because of the complexity, this is the solution you've been looking for!

Technical Details

- Backpack Dimensions: 72mm x 32mm x 2mm / 1.25" x 2.8" x .08"
- Matrix Dimensions: 32mm x 32mm x 7mm / 1.3" x 1.3" x .3"
- Pin Length: 13mm / 0.5"

This board/chip uses I2C 7-bit addresses between 0x70-0x77, selectable with jumpers.