

HOME LEDs Segmented Adafruit 0.56" 4-Digit 7-Segment Display w/I2C Backpack - Red

## Adafruit 0.56" 4-Digit 7-Segment Display w/I2C Backpack - Red -

ID: 878

Manufactured by: Adafruit









## Description

What's better than a single LED? Lots of LEDs! A fun way to make a small display is to use an **8x8 matrix** or a **4-digit 7-segment display**. Matrices like these are 'multiplexed' - so to control all the seven-segment LEDs you need 14 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 a matrix without tons of wiring? That's where these adorable LED matrix backpacks come in. We have them in two flavors - a mini 8x8 and a 4-digit 0.56" 7-segment. They work perfectly with the matrices we stock in the Adafruit shop and make adding a bright little display trivial.

The matrices use a driver chip that does all the heavy lifting for you: They have a built in clock so they multiplex the display. They use 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. The backpacks come with address-selection jumpers so you can connect up to four mini 8x8's or eight 7-segments (or a combination, such as four mini 8x8's and four 7-segments, etc) on a single I2C bus.

The product kit comes with:

- A fully tested and assembled LED backpack
- Ultra-bright 4-digit 0.56" tall red seven-segment display 4-pin header

A bit of soldering is required to attach the matrix onto the backpack but its very easy to do and only takes about  $5\ \mathrm{minutes}.$ 

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 eyeing matrix displays but hesitated because of the complexity, this is the solution you've been looking for!

**Technical Details** 



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