



SparkFun Lumenati 8-stick

COM-14359 [Open Source Hardware](#)



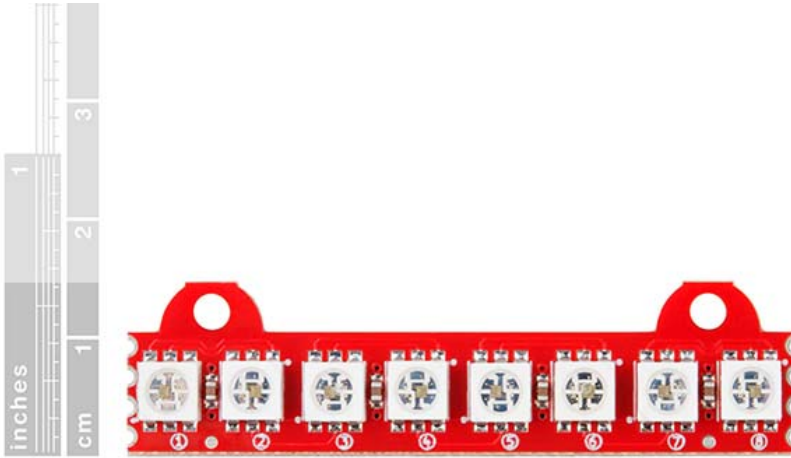
The SparkFun Lumenati 8-stick is a small board equipped with eight APA102C LEDs in a row and two mounting positions, that has been designed to give your projects an edge in their lighting capacity. The 8-stick board has been specifically designed to be daisy-chained with other Lumenati boards, thanks to the castellated edge connectors at each end allowing for multiple design options and formations. Additionally, we have labeled the APA102C LEDs on each board with numbers indicating their position in the sequence to help you write code more easily. We especially love using the Lumenati boards to give our flying race drones a bit of style and panache.

The Lumenati 8-stick can also be combined with the [90R](#) and [90L](#) boards to create outlines of different shapes and sizes.

The APA102C addressable LEDs operate on +5V power input, as well as 0–5V logic levels for clock and data, and employ a 2-wire communication protocol consisting of a clock line and a data line. While this requires one more wire than standard WS2812B LEDs, the advantage is that the communication with the LEDs becomes somewhat timing-independent, allowing you to run these directly off of a Raspberry Pi or other single-board computer that doesn't normally allow for a long, precisely timed data stream without the use of additional hardware.

Note: There are two solder jumpers on the back of the 8-stick labeled CO and DO (clock out and data out) that can be cut to interrupt those signals in case you make a closed-loop design where you don't want the clock and data from your last LED to interfere with the clock and data to your first. It is *critical* that you cut the traces in the jumpers of the last board in the loop before you power up your LEDs if you've put together a continuous loop of Lumenati boards. Otherwise, it is likely that you'll burn out a couple of LEDs.

- Dimensions: 56.6mm x 15mm x 3.2mm (2.22" x 0.6" x 0.12")
- Weight: 2.8g



Notice. This product requires other products in order to function properly.
 See [essential products](#).

Essentials	
SparkFun SAMD21 Mini Breakout	DEV-13664
SparkFun Logic Level Converter - Bi-Directional	BOB-12009
Wall Adapter Power Supply - 5.1V DC 2.5A (USB Micro-B)	TOL-13831
Soldering Iron - 30W (EU, 230VAC)	TOL-11650

<https://www.sparkfun.com/products/14359> 10-17-17