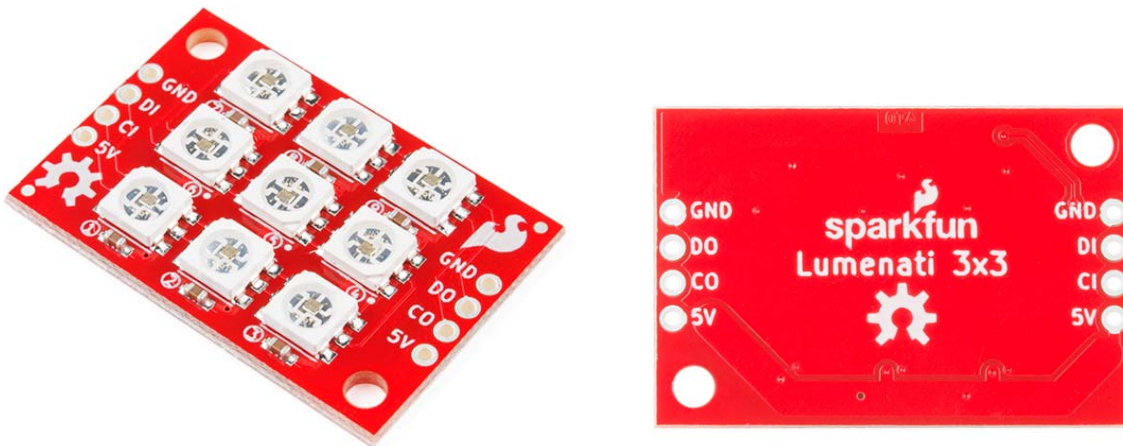# SparkFun Lumenati 3x3

COM-14360 Open Source Hardware
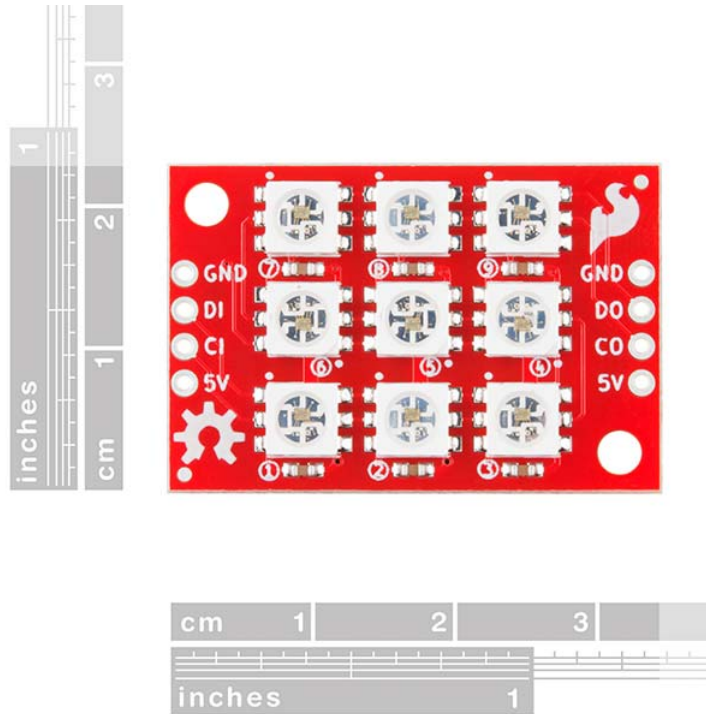

DESCRIPTION

Designed to give your projects an edge in their lighting capacity, the SparkFun Lumenati 3x3 is a small, rectangular board equipped with nine APA102C LEDs arranged in a 3x3 array. The 3x3 board can be daisy-chained with other Lumenati boards, allowing for multiple design options and formations. With the equipped 0.1" spaced pins, this Lumenati can also be installed into a breadboard for more prototyping applications. 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 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.

FEATURES

- Dimensions: 34.7mm x 23.3mm x 3.2mm (1.4" x 0.9" x 0.12")
- Weight: 3.35g

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