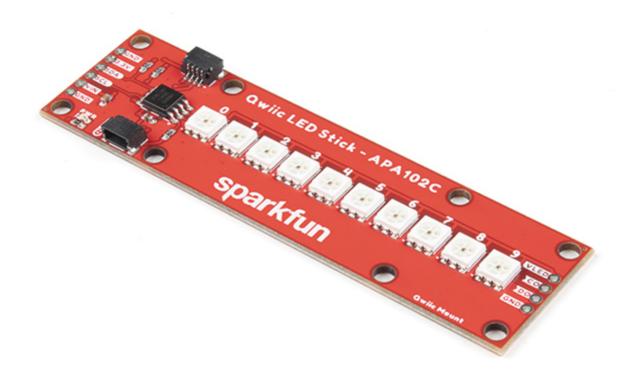
## SparkFun Qwiic LED Stick - APA102C



The SparkFun Qwiic LED Stick features ten addressable APA102 LEDs, making it easy to add full color LED control using I<sup>2</sup>C. Write to individual LEDs to display a count in binary, or write to the whole strip for cool lighting effects. You can even add more LEDs to the end if you need to. We've written an Arduino library and Python package that take care of the I<sup>2</sup>C and communication to the LEDs so all you have to do is decide what color each LED should be.

The LED Stick has a default I<sup>2</sup>C address of 0x23 but can be changed with a simple command, allowing you to control up to 100 LEDs (10 Qwiic LED Sticks) on a single bus! The address can also be changed to 0x22 by closing the solder jumper on the back of the board.

This board is one of our many <u>Qwiic</u> compatible boards! Simply plug and go. No soldering, no figuring out which is SDA or SCL, and no voltage regulation or translation required!

**Warning:** Using a lot of LEDs can draw a lot of current. Make sure to consider the power limits of your setup. If you expect your LED chain to draw more than **600mA** of current, connect your external supply directly to VLED. Closing the jumper from VLED to VCC will add a 4.7uF decoupling capacitor.

The <u>SparkFun Qwiic Connect System</u> is an ecosystem of  $I^2C$  sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.