

Adafruit Sparkle Motion Stick + Enclosure Kit

Product ID: 6333



Description

The **Adafruit Sparkle Motion Stick** is part of our series of "Sparkle Motion" boards, which are our attempt to make the best small WLED-friendly smart LED driving board in the whole world. Our resident mermaid, [firepixie](#) makes a lot of projects with WLED, and she loves it! So, how can we make something powerful enough to drive advanced LED projects that need a compact design?

This version includes both the Sparkle Motion Stick and the enclosure, which is great if you want to protect your USB dongle from everyday usage, but note that it is not waterproof or weatherproof. There are three pieces: two snap over the PCB to capture it in place, and one can be used as a USB A port cap. We also like there's a button lever - by default in WLED pin 0 is an on/off mode switcher, but you can program it to do other stuff.

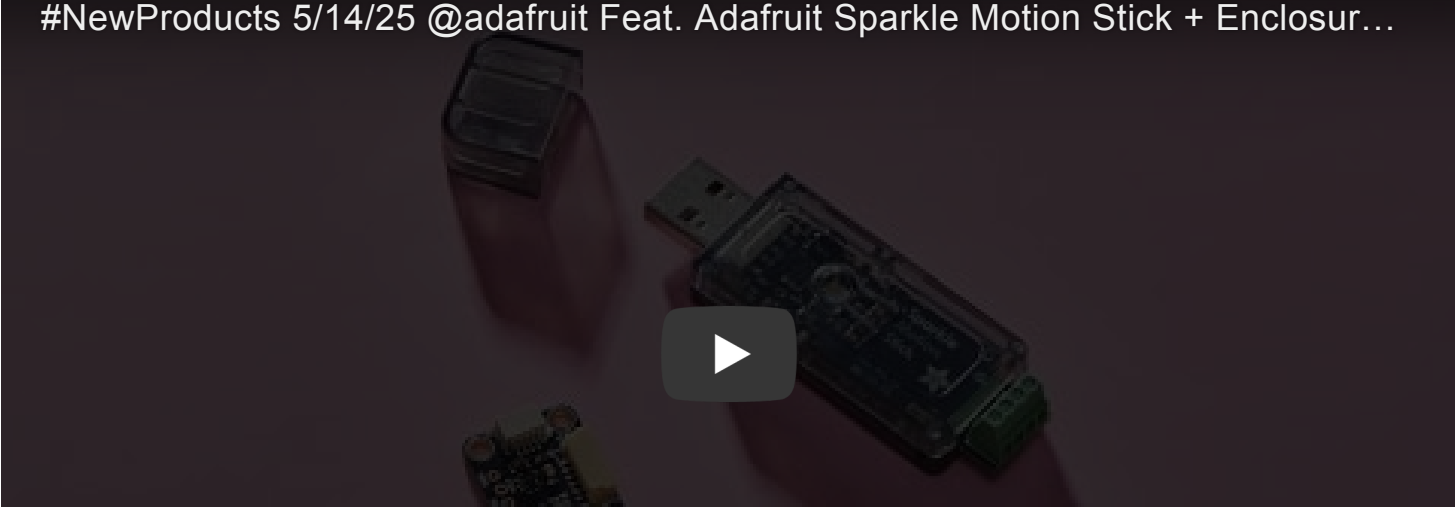
The USB Stick version of the Sparkle Motion is a simpler version of our full-featured Sparkle Motion. [It even fits into a low cost off-the-shelf case for protection.](#)

- **Power via USB Type A for up to 5V 2A input** - you can use off-the-shelf USB battery packs for portable operation.
- **2 Amp resetting fuse** to protect from over-current drive
- **ESP32** mini module with built-in antenna port - the classic ESP32 has the best WLED support, even if we'd prefer the 'S2 or 'S3. Comes with 4 MB of flash, dual-core 240MHz Tensilica, WiFi, Bluetooth® LE, and Bluetooth® Classic support.
- **USB-serial converter** with auto-reset
- **Two output signals plus 5V power and ground** - both signal outputs are level shifted to 5V.
- **Built-in I2S microphone** for audio-reactive projects
- **Built-in Infrared receiver** on GPIO 10 for easy remote control integration
- **User button on GPIO 0** which you can press even when its in the snap-on case
- **Red built-in LED** on pin 4
- **Small built-in NeoPixel** on pin 18
- **Screw terminal blocks** for no-solder connectivity

Compared to our [larger Sparkle Motion board](#), this only supports 5V and doesn't have a reset button, there are fewer outputs, and no breakout pads of I2C/GPIO connections for external accessories. Compared to our [Sparkle Motion Mini](#), this has a USB A port so it's 2A max power. It does have IR and built-in terminal blocks but does not have GPIO breakout pads.

While we recommend it for use with WLED, it will also work just fine as a compact ESP32 board for use with Arduino, ESP-IDF, MicroPython, CircuitPython, or any other ESP32-supported codebase.

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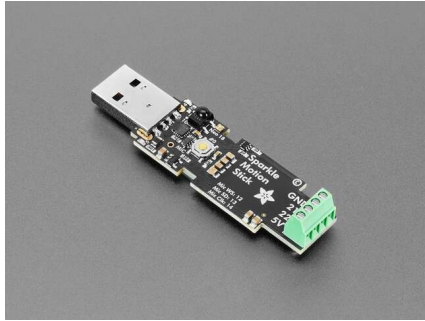
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Technical Details

[Enclosure Diagram](#)



Learn



[Primary Guide: Adafruit Sparkle Motion Stick](#)
The power of Sparkle Motion in a stick



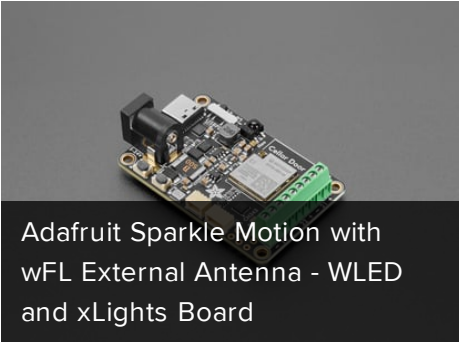

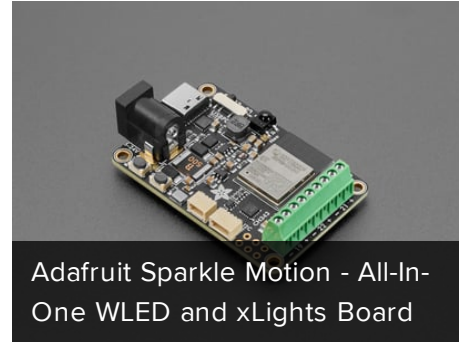
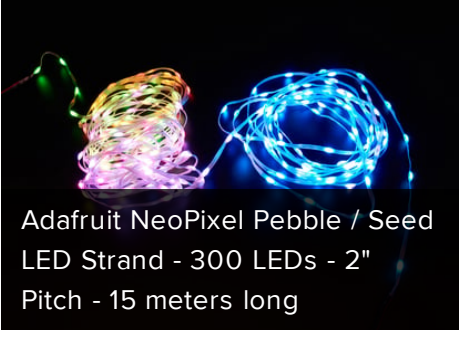
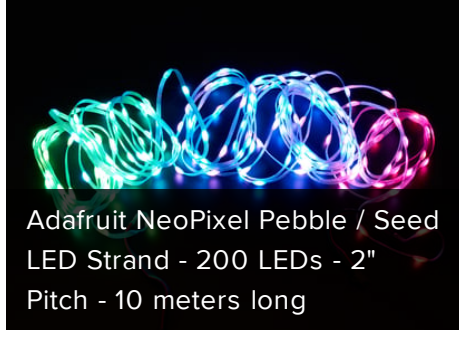

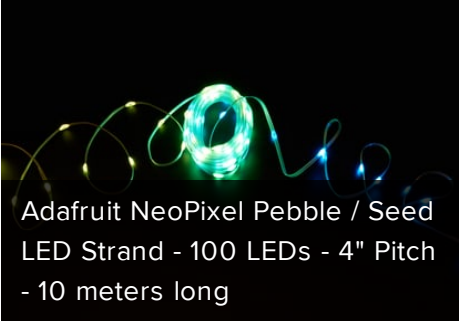

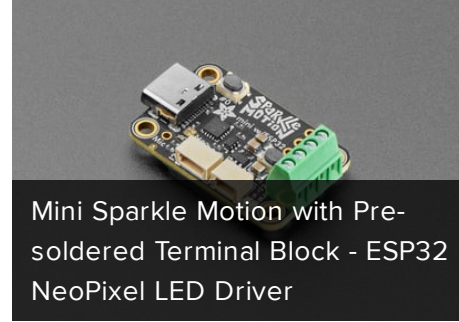
[xLights for Sparkle Motion Board](#)
Sequence your Pixels to create a dazzling display



[No-Code Rain Sensing Smart Desktop Umbrella Stand](#)
Reminder to grab your umbrella if it is going to rain

[See All Guides](#)

May We Also Suggest...

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|---|---|--|
|  <p>Adafruit Sparkle Motion with wFL External Antenna - WLED and xLights Board</p> |  <p>Mini Sparkle Motion - WLED-friendly ESP32 NeoPixel LED Driver</p> |  <p>Adafruit Sparkle Motion - All-In-One WLED and xLights Board</p> |
|  <p>Adafruit NeoPixel Pebble / Seed LED Strand - 300 LEDs - 2" Pitch - 15 meters long</p> |  <p>Adafruit NeoPixel Pebble / Seed LED Strand - 200 LEDs - 2" Pitch - 10 meters long</p> |  <p>Adafruit NeoPixel Pebble / Seed LED Strand - 150 LEDs - 4" Pitch - 15 meters long</p> |
|  <p>Adafruit NeoPixel Pebble / Seed LED Strand - 100 LEDs - 4" Pitch - 10 meters long</p> |  <p>Snap-on Translucent USB Dongle Case - 48 x 22 x 12mm</p> |  <p>Mini Sparkle Motion with Pre-soldered Terminal Block - ESP32 NeoPixel LED Driver</p> |

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— Edsger W. Dijkstra



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