

Mini Sparkle Motion with Pre-soldered Terminal Block - ESP32 NeoPixel LED Driver

Product ID: 6314



Description

The **Adafruit Sparkle Motion Mini** 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?

The **Mini** version of the Sparkle Motion is a simpler version of our full-featured Sparkle Motion; we give up the high voltage support and built-in IR receiver, to make it under 1 square inch in size!

This version includes a pre-soldered terminal block, that means no soldering is required to get started: a small screwdriver will get you going instantly. However, the board is bulkier and the terminal block overlaps half of one of the breakout pads.

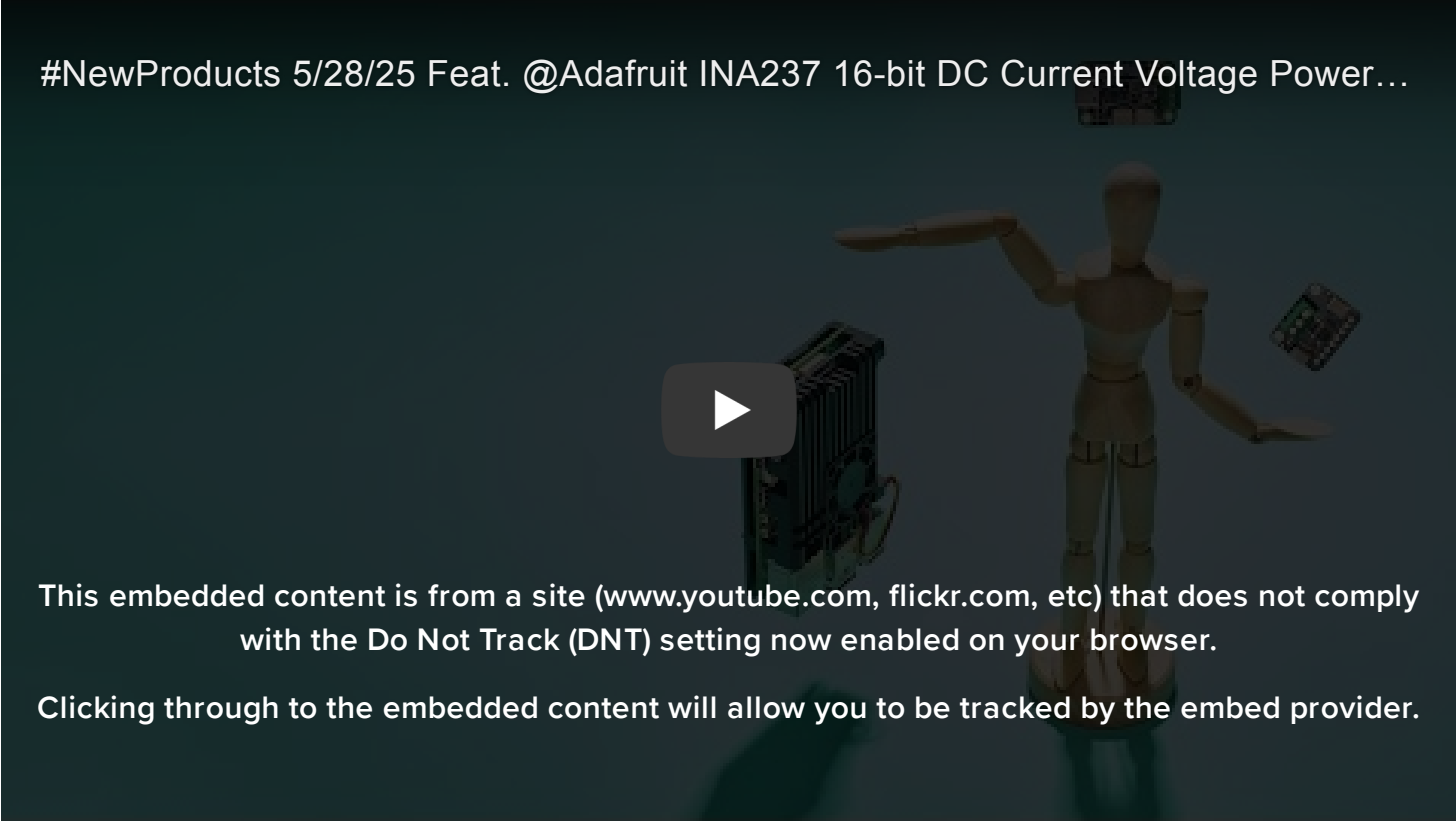
By using a 4-layer board and double-sided assembly, we've put together this feature set:

- **Power via USB Type C for up to 5V 4A input** - you can use off-the-shelf USB battery packs for portable operation.
- **4 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 output are level shifted to 5V. These are on 0.1" spaced breakout pads.
- **Extra 2x3 0.1" breakout pads** with 4 more GPIO plus 3V power and ground.
- **Built-in I2S microphone**
- **Stemma QT I2C port** to connect external sensors/OLED/etc
- **User button on GPIO 0** plus Reset button
- **Red built-in LED** on pin 12
- **Small built-in NeoPixel** on pin 18
- **Separate analog/digital input JST port** for analog input, potentiometer, microphone, or external IR receiver on pin 13
- **Compact enough you can use it for wearable projects** - 1.2"x0.8" / 30mm x 20mm size with mounting holes

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

Comes as a fully assembled driver board with a 3.5mm terminal block

Also, unlike the bigger version, we dropped the on-board IR receiver; however, it's easy to add one by [plugging in a JST SH 3-pin socket cable](#) and [slotting in an IR receiver module](#).



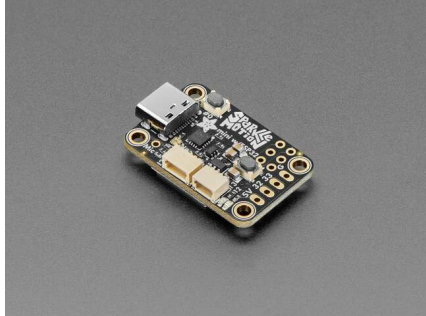
Technical Details

Product Dimensions: 32.3mm x 19.7mm x 12.4mm / 1.3" x 0.8" x 0.5"

Product Weight: 5.1g / 0.2oz



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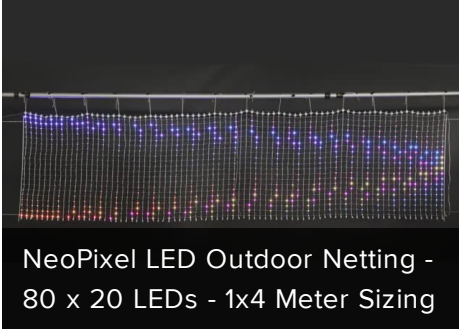
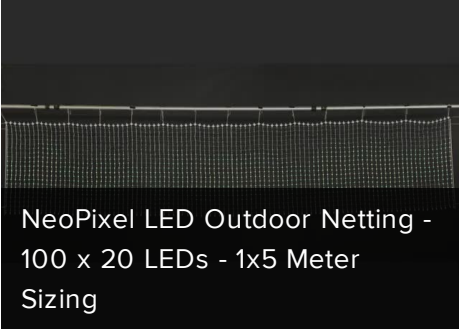
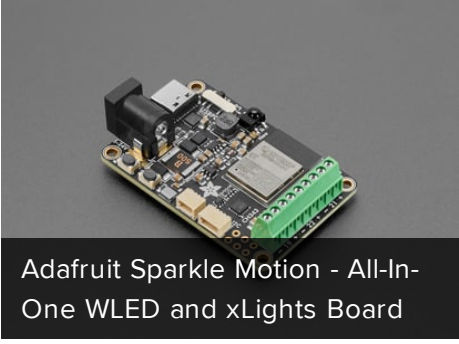
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