Adafruit HUZZAH32 – ESP32 Feather Board
PRODUCT ID: 3405

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DESCRIPTION

TECHNICAL DETAILS

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DESCRIPTION

Aww yeah, it's the Feather you have been waiting for! The **HUZZAH32** is our ESP32-based Feather, made with the official WROOM32 module. We packed everything you love about Feathers: built in USB-to-Serial converter, automatic bootloader reset, Lithium Ion/Polymer charger, and just about all of the GPIOs brought out so you can use it with any of our Feather Wings. We have other boards in the Feather family, check'em out here.

That module nestled in at the end of this Feather contains a dual-core ESP32 chip, 4 MB of SPI Flash, tuned antenna, and all the passives you need to take advantage of this powerful new processor. The ESP32 has both WiFi *and* Bluetooth Classic/LE support. That means it's perfect for just about any wireless or Internet-connected project.

Because it's part of our Feather eco-system, you can take advantage of the 50+ Wings that we've designed to add all sorts of cool accessories.

The ESP32 is a perfect upgrade from the ESP8266 that has been so popular. In comparison, the ESP32 has way more GPIO, plenty of analog inputs, two analog outputs, multiple extra peripherals (like a spare UART), two cores so you don't have to yield to the WiFi manager, much higher-speed processor, etc. etc! We think that as the ESP32 gets traction, we'll see more people move to this chip exclusively, as it is so full-featured.

Please note: The ESP32 is still targeted to developers. Not all of the peripherals are fully documented with example code, and there are some bugs still being found and fixed. We got all of our Featherwings working under Arduino IDE, so you can expect things like I2C and SPI and analog reads to work. But other elements are still under development. For that reason, we recommend this Feather for makers who have some experience with microcontroller programming, and not as a first dev board.
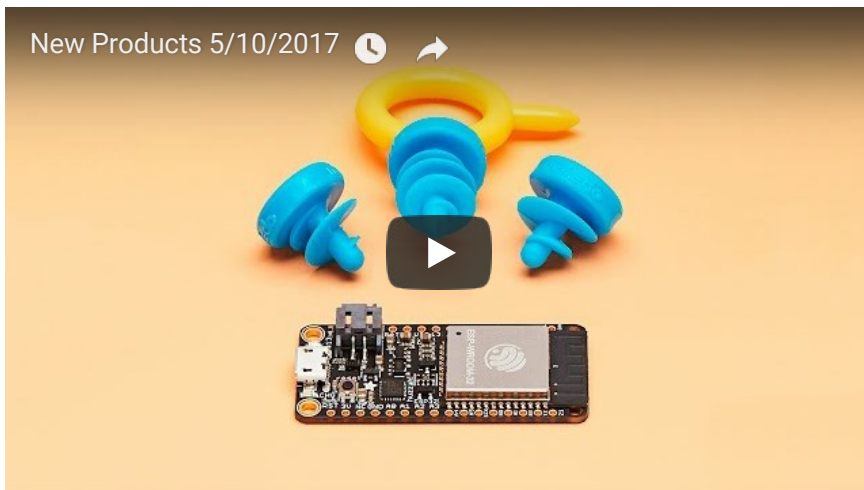
Here are specifications from Espressif about the ESP32:

- 240 MHz dual core Tensilica LX6 microcontroller with 600 DMIPS
- Integrated 520 KB SRAM
- Integrated 802.11b/g/n HT40 Wi-Fi transceiver, baseband, stack and LWIP
- Integrated dual mode Bluetooth (classic and BLE)
- 4 MByte flash include in the WROOM32 module
- On-board PCB antenna
- Ultra-low noise analog amplifier
- Hall sensor
- 10x capacitive touch interface
- 32 kHz crystal oscillator
- 3 x UARTs (only two are configured by default in the Feather Arduino IDE support, one UART is used for bootloading/debug)
- 3 x SPI (only one is configured by default in the Feather Arduino IDE support)
- 2 x I2C (only one is configured by default in the Feather Arduino IDE support)
- 12 x ADC input channels
- 2 x I2S Audio
- 2 x DAC
- PWM/timer input/output available on every GPIO pin
- OpenOCD debug interface with 32 kB TRAX buffer
- SDIO master/slave 50 MHz
- SD-card interface support

Comes fully assembled and tested, with a USB interface that lets you quickly use it with the Arduino IDE or the low-level ESP32 IDF. We also toss in some header so you can solder it in and plug into a solderless breadboard. **Lipoly battery and USB cable not included** (but we do have lots of options in the shop if you'd like!)

Check out the Adafruit learn guide for documentation, pinouts, schematics, Fritzing objects, Arduino setup, and more!

TECHNICAL DETAILS

Revision History:

- As of June 21, 2017 we are now shipping with the Rev 1 silicon hardware inside the ESP32 module.

Product Dimensions: 51.0mm x 22.7mm x 7.3mm / 2.0" x 0.9" x 0.3"
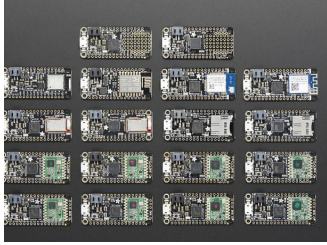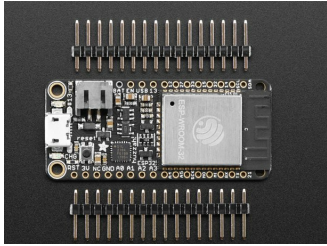
Product Weight: 6.8g / 0.2oz

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Introducing Adafruit Feather
Boards of a Feather flock together!

Adafruit HUZZAH32 - ESP32 Feather
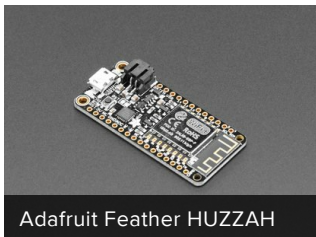WiFi, Bluetooth, peripherals galore!

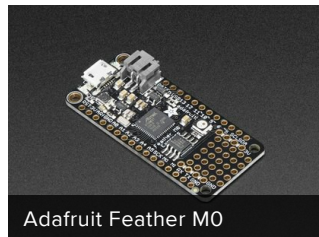**All the Internet of Things - Episode Two**
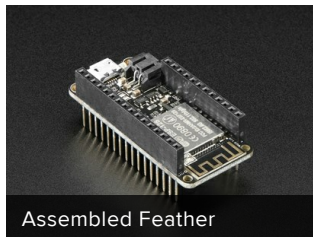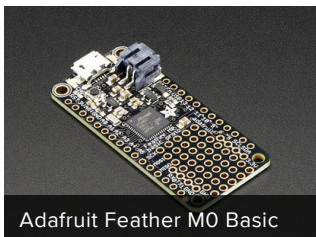Protocols

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MAY WE ALSO SUGGEST...

Adafruit Feather HUZZAH

Adafruit Feather M0
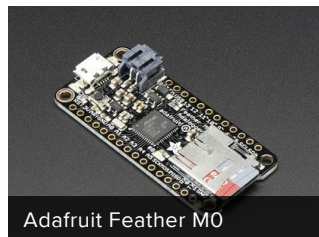

Assembled Feather

Adafruit Feather M0 Basic
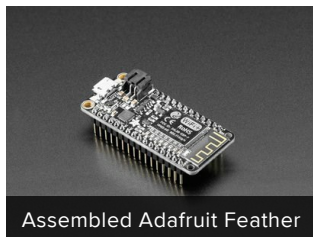

Adafruit Feather M0 WiFi
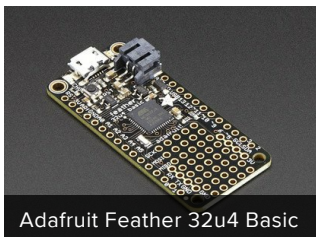

Lithium Ion Polymer Battery

Microsoft Azure IoT Starter

Adafruit Feather M0

Assembled Adafruit Feather

Adafruit Feather 32u4 Basic

Adafruit Feather M0 WiFi -

USB cable - A/MicroB

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4.9 ★★★★★
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