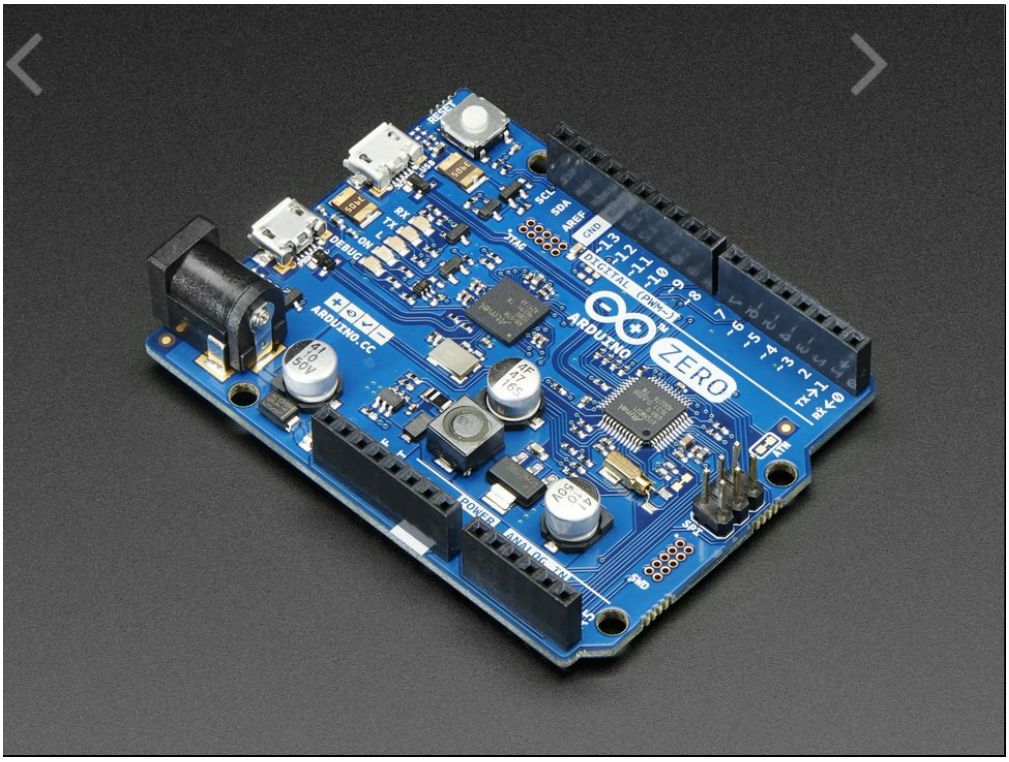


Arduino Zero - 32 bit Cortex M0 Arduino with Debug Interface

PRODUCT ID: 2843

DISCONTINUED

You can grab the Adafruit METRO M0 Express w/ATSAMD21G18 instead!

DESCRIPTION

With the new **Arduino Zero**, the more creative individual will have the potential to create one's most imaginative and new ideas for IoT devices, wearable technologies, high tech automation, ures in the world of makers.

The Arduino Zero represents a simple, yet powerful, 32-bit extension of the Arduino UNO platform. The board is powered by Atmel's SAMD21 MCU, featuring a 32-bit ARM Cortex® M0+ core. With the addition of the Zero board, the Arduino family becomes larger with a new member providing increased performance.

The power of its Atmel core gives this board an upgraded flexibility and boosts the scope of projects one can think of and make; moreover, it makes the Zero the ideal educational tool for learning about 32-bit application development.

Atmel's Embedded Debugger (EDBG), integrated in the board, provides a full debug interface with no need for additional hardware, making debugging much easier. EDBG additionally supports a virtual COM port for device programming and traditional Arduino boot loader functionality uses.

Please note: We at Adafruit have only started to really play with the Zero but we thought we'd offer it up to our customers who would appreciate getting an early look! There are a few core changes in this chipset that may make many libraries, shields and other Arduino add-ons will not work out-of-the-box. The Zero is for advanced hackers only at this time.

More information available on the website!

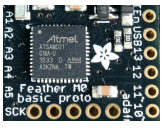
TECHNICAL DETAILS

- Schematic
- Microcontroller: ATSAMD21G18, 32-Bit ARM Cortex M0+
- Operating Voltage: 3.3V
- Digital I/O Pins: 20
- PWM Pins: All but pins 2 and 7
- UART: 2 (Native and Programming)
- Analog Input Pins: 6, 12-bit ADC channels
- Analog Output Pins: 1, 10-bit DAC
- External Interrupts: All pins except pin 4
- DC Current per I/O Pin: 7 mA
- Flash Memory: 256 KB
- SRAM: 32 KB
- EEPROM: None
- Clock Speed: 48 MHz
- 70.3mm x 53.5mm x 12.7mm / 2.76" x 2.1" x 0.5"
- Weight: 22.6g

LEARN

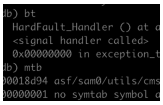
MicroPython Basics: How to Load MicroPython on a Board

Learn how to load MicroPython firmware on a development board.



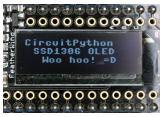
MicroPython for SAMD21

How to use MicroPython with boards like the Feather M0 & Arduino Zero!



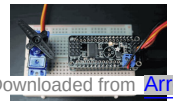
Debugging the SAMD21 with GDB

Using GDB to better understand program state and history.



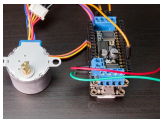
CircuitPython Hardware: SSD1306 OLED Display

How to use a SSD1306 OLED display with CircuitPython boards.



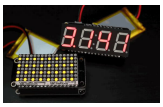
CircuitPython Hardware: PCA9685 PWM & Servo

How to use the PCA9685 PWM & servo driver with CircuitPython!



CircuitPython Hardware: PCA9685 DC Motor & Stepper Driver

How to use the PCA9685 DC Motor & Stepper driver with CircuitPython!

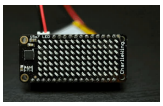


CircuitPython Hardware: LED Backpacks & FeatherWings

How to use LED Backpacks & FeatherWings with CircuitPython!

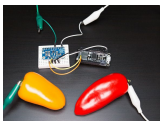
CircuitPython Hardware: Charlieplex LED Matrix

How to use Charlieplex LED matrices with CircuitPython!



MicroPython Displays: Drawing Text

How to write text on any MicroPython display.

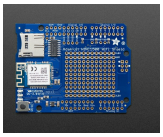


CircuitPython Hardware: MPR121 Capacitive Touch Breakout

Learn how to use the MPR121 capacitive touch sensing breakout with CircuitPython!

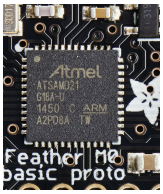
DMA-Driven NeoPixels

NeoPixels and interrupts living in peace and harmony!



Adafruit WINC1500 WiFi Shield for Arduino

Add WiFi to your Arduino with a snap of this shield

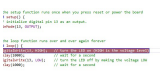


Using ATSAMD21 SERCOM for more SPI, I2C and Serial ports

Get more high speed serial commports without bitbanging

LIGHTSHIP: LED Animation over WiFi

Any sufficiently advanced technology is indistinguishable from magic.



Proper Debugging of ATSAMD21 Processors

Step in, step out, step over and repeat!

MAY WE ALSO SUGGEST...

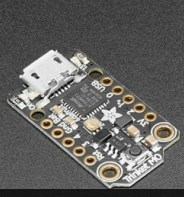
Adafruit METRO 328

Arduino Pro Mini 328 -

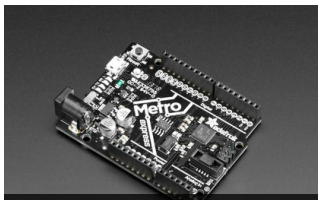
Arduino Pro Mini 328 -

Adafruit METRO 328 Fully


Adafruit Feather M0

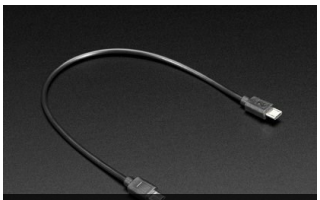

Adafruit Trinket M0 - for use

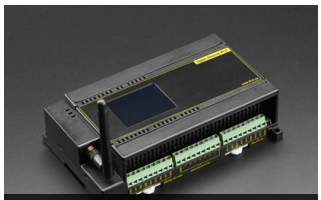

Adafruit Feather M0



Adafruit METRO M0


Seeeduino Lite -


Micro USB to Micro USB


Digital Loggers PLDuino -

"the future is not what it used to be"
- Robert Graves