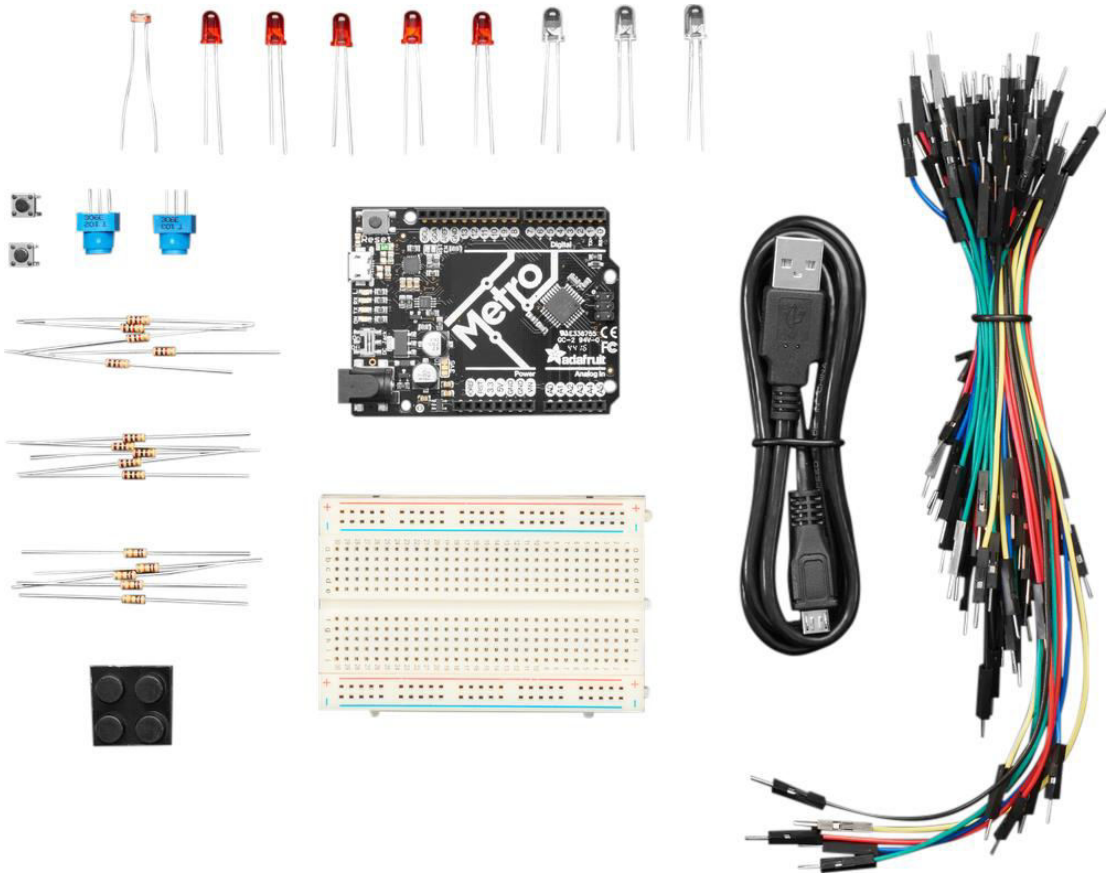

This budget pack is an optimized collection of parts and pieces to experiment with Adafruit Metro 328 and the Arduino IDE at home, school or work. Great for students and those that want to get their feet wet, no soldering required!

Includes the Adafruit Metro 328 with through-hole headers. At the heart is an ATmega328P, with 32KB of flash and 2KB of RAM, running at 16 MHz, the same chip used in the Arduino UNO

Features:

- Power with 7-12V polarity protected DC or the micro USB connector to any 5V USB source. The 2.1mm DC jack has an on/off switch next to it so you can turn off your setup easily. The METRO will automatically switch between USB and DC.
- 19 GPIO pins, 6 of which are Analog in as well, and 2 of which are reserved for the USB-serial converter. There's also 6 PWMs available on 3 timers (1 x 16-bit, 2 x 8-bit). There's a hardware SPI port, hardware I2C port and hardware UART to USB. Logic level is 5V but by cutting and soldering closed a jumper, you can easily convert it to 3.3V logic
- USB to Serial converter, there's a hardware USB to Serial converter that can be used by any computer to listen/send data to the Metro, and can also be used to launch and update code via the bootloader
- Four indicator LEDs, on the front edge of the PCB, for easy debugging. One green power LED, two RX/TX LEDs for the UART, and a red LED connected to pin 13
- Easy reprogramming, comes pre-loaded with the Optiboot bootloader, so you can get started immediately.
- Works with all Adafruit shields

Includes:

- Adafruit Metro w/Atmega328 - assembled and ready to go, including 4 rubber feet to protect the board from the worktable
- 3' USB cable - Perfect for connecting your Arduino to a computer
- Half-sized Breadboard - 400 connection points, plenty of room for beginner projects, with 2 power rails on the side. Can be rubber-banded to an Arduino to make a 1-penny devboard
- 65 flexible breadboard wires in 8 colours, perfect for use with the solderless breadboard.
- 1K & 10K potentiometer - with 0.1" spacing and fit very nicely into a breadboard without modification
- 2 small pushbuttons - Snap into the breadboard for button inputs

- 5 bright red diffused LEDs (250mcd) – indicators, blinkies, bright enough to see in the day, but diffused so that they are visible from all angles.
- Red, green and blue ultra-bright LED – Can be used on their own, or colour-mixed to make nearly any colour in the rainbow!
- 5 100 ohm resistors – Can be used to protect pin outputs when starting out
- 5 1K resistors – Good for use as LED limiting resistors
- 5 10K resistors
- CdS photocell