



PRODUCT NAME : Adafruit METRO 328 w
ith Headers - ATmega328

PRICE : Rs 2,399.00

SKU : RM3199



DESCRIPTION

We sure love the ATmega328 here at Adafruit, and we use them a *lot* for our own projects. The processor has plenty of GPIO, Analog inputs, hardware UART SPI and I2C, timers and PWM galore - just enough for most simple projects. When we need to go small, we use a [Pro Trinket 3V](#) or [5V](#), but when size isn't as much of a concern, and an USB-serial converter is required, we reach for an Adafruit METRO.

This is the **Adafruit METRO with headers**. It comes with headers soldered on. It's a fully assembled and tested board with SMT headers attached as well as through hole headers. If you don't want a Metro with through-hole headers or at least, holes for them, but not attached for super-slimness, check out our [Metro without Headers](#).

METRO is the culmination of years of playing with AVRs: we wanted to make a development board that is easy to use and is hacker friendly. At the heart is an ATmega328P, with 32KB of flash and 2KB of RAM, running at 16 MHz

- **Power the METRO** with 7-9V 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 automagically switch between USB and DC.
- **METRO has 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 PB5
- **Easy reprogramming**, comes pre-loaded with the [Optiboot bootloader](#), which is supported by avrdude and only uses 512 bytes.
- **Works with all Adafruit shields!**

We also include 4 rubber bumpers to keep it from slipping off your desk. [Metro shown with our 12x capacitive touch shield attached just to demonstrate the headers, but that shield is not included!](#)

Mac & Windows People! Don't forget to grab & install the FTDI VCP drivers from FTDI to make the COM/Serial port show up right! The default drivers may not support this FTDI chip!