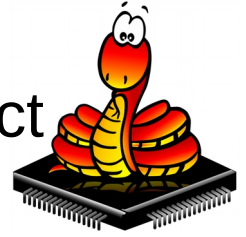


# Pico RP2040

by Raspberry-Pi Foundation

## The new Python & Arduino Dual core mcu for embedded project



Official MicroPython  
micropython.org  
Pico.raspberrypi.org



Official C++  
Pico.raspberrypi.org



arduino.cc



Rust  
Rust.org



Adafruit's MicroPython  
learn.adafruit.com/  
welcome-to-circuitpython

### Pico are :

- ✓ Small (5,25 x 2,1cm)
- ✓ Light (4,0 gr)
- ✓ Powerful
- ✓ Versatile
- ✓ Polyvalent
- ✓ Multi-language
- ✓ Worldwide supported
- ✓ Widely documented

### Pico features :

- ➔ 2 core @ 133 Mhz
- ➔ 26 GPIOs
- ➔ 3 Analog inputs - 12 bits
- ➔ 3 Internal Analog
- ➔ 16 PWM outputs
- ➔ Hardware I2C, SPI buses
- ➔ UART
- ➔ PIO (Programmable IO)



open source  
hardware

Schematics freely  
available.

### Lipo Battery

Pads for external power  
supply (Lipo or other).

### Efficient DC/DC

3,3V @ 300mA  
(PowerSave mode)

- microUSB**
- Program with IDE
  - Store Python Script
  - Can recharge LiPo

**User LED**  
wired on  
pin #25

**EXTRA FLASH (2Mb)**  
like a **microSD card**,  
this storage is used for the  
firmware, data files  
and python scripts.

### Microcontroller

RP2040 Cortex M0+  
265 Kio SRAM  
Multithreading

**Castellated  
pins**

**RTC**  
Internal Real Time Clock

### Pico Power vs Arduino Uno

Clock : **133 MHz** vs 16 MHz for Uno

RAM : **265 Kb** vs 2Kb for Uno

Flash : **2048 Kb** vs 32Kb for Uno

Real Time Clock : **Yes** vs none for Uno

Info



TUTORIAL

cansat-pico.mchobby.be

