RP2040 Pro Micro Raspberry Pi PICO Development Board – Dual-Core Microcontroller

The **RP2040 Pro Micro Raspberry Pi PICO Development Board** is a powerful, compact, and versatile microcontroller board designed for developers, makers, and engineers. Built around the **RP2040 dual-core ARM Cortex-M0+ processor**, this development board combines high performance, rich peripherals, and ease of integration in a small form factor. It is perfectly suited for applications ranging from IoT devices and robotics to embedded systems and automation projects.

If you are searching for a cost-effective yet highly capable microcontroller development platform, the **RP2040 Pro Micro PICO Board** delivers the ideal balance of performance and flexibility.

Key Features of RP2040 Pro Micro PICO Development Board

- **Processor:** Dual-core ARM Cortex-M0+ running up to 133 MHz.
- **Memory:** 264KB on-chip SRAM.
- **Flash Storage:** 2MB onboard QSPI Flash memory.
- **GPIO:** 26 multifunction GPIO pins (supporting UART, SPI, I2C, PWM, ADC).
- **USB Support:** Micro-USB with USB 1.1 Device and Host capability.
- **Clock:** 12 MHz crystal oscillator for stable performance.
- **Operating Voltage:** 3.3V.
- **Form Factor:** Compact and lightweight, ideal for embedding into projects.

Why Choose the RP2040 Pro Micro Raspberry PICO Development Board?

1. Dual-Core Performance

The RP2040 MCU features a dual-core ARM Cortex-M0+ processor capable of running at up to 133 MHz. This processing power allows developers to handle complex tasks such as real-time sensor data processing, motor control, IoT protocols, and multi-tasking applications without lag or instability.

2. Ample Memory and Storage

With 264KB SRAM and 2MB onboard Flash memory, the board offers enough capacity for coding advanced projects, storing program logic, and managing application data. Whether you are programming in MicroPython, C/C++, or Arduino IDE, this development board provides the necessary resources for smooth execution.
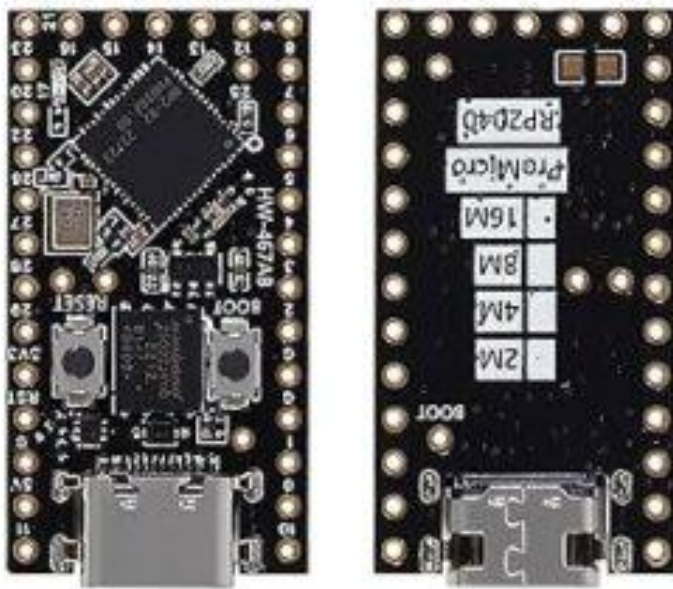
3. Flexible GPIO Options

Equipped with 26 multifunction GPIO pins, the RP2040 Pro Micro gives developers the freedom to connect a wide variety of peripherals. These pins support serial communication protocols (I2C, SPI, UART), PWM for motor and LED control, and ADC for analog input sensors. This flexibility makes it a go-to solution for prototyping and final product designs.

4. USB 1.1 Support

The micro-USB interface supports USB 1.1 Device and Host modes, enabling the board to be used for programming, communication with a PC, or direct connection with external USB peripherals such as sensors, keyboards, and other devices.

5. Cross-Platform Development

The RP2040 Pro Micro PICO board supports multiple programming environments including **C/C++ SDK, Arduino IDE, and MicroPython**, making it suitable for beginners as well as experienced embedded engineers. This cross-platform compatibility ensures flexibility and ease of development.

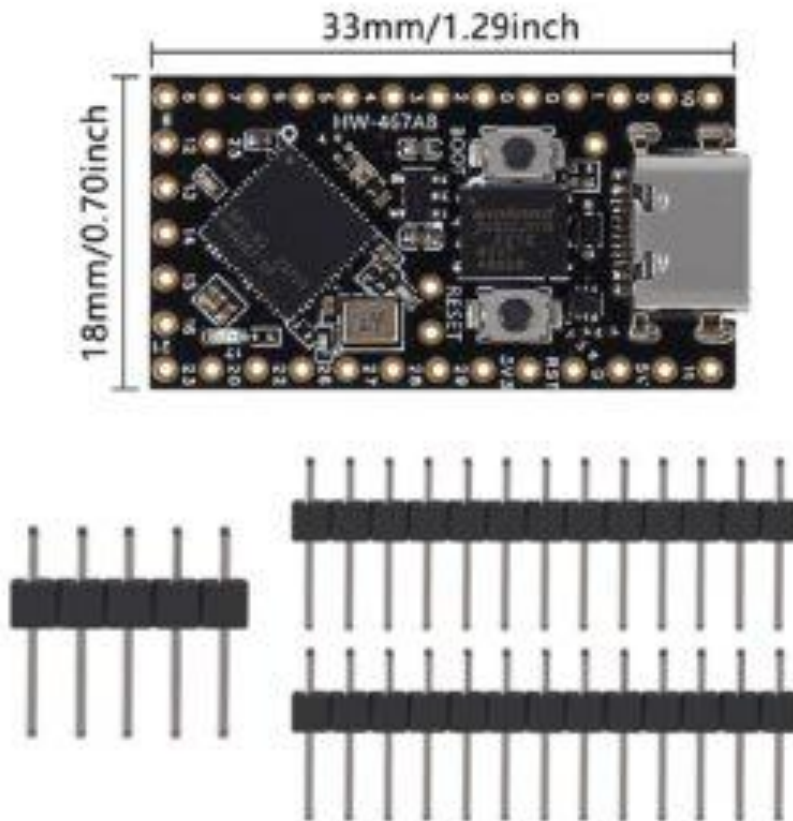# Applications of RP2040 Pro Micro Raspberry Pi PICO Board

The versatility of this board makes it suitable for a wide range of practical and industrial applications:

- **IoT Projects:** Build connected devices, smart home systems, and wireless sensors.
- **Robotics:** Control motors, actuators, and sensors for autonomous robots or drones.
- **Embedded Systems:** Act as the core controller for industrial automation or consumer electronics.
- **Educational Use:** Excellent for students learning microcontrollers, electronics, and programming.
- **DIY & Maker Projects:** Create interactive gadgets, wearables, and personal tech experiments.

Benefits for Developers and Makers

- **Compact Design:** Easy to embed in small spaces or portable devices.
- **Cost-Effective:** Affordable pricing without compromising features.
- **High Reliability:** Backed by Raspberry Pi's RP2040 chip architecture.

- **Fast Prototyping:** Simple GPIO layout and programming support make it easy to test ideas quickly.

Why Buy From Us?

When purchasing the **RP2040 Pro Micro Raspberry Pi PICO Development Board**, you receive not only a high-quality and reliable development board but also the assurance of:

- **Competitive Prices**
- **Fast Shipping**
- **Expert Support for Developers**
- **Trusted Supplier for Embedded Solutions**

We are dedicated to providing top-quality products and resources for students, makers, and professionals.

Conclusion

The **RP2040 Pro Micro Raspberry Pi PICO Development Board Dual-Core** is a compact yet powerful development platform designed for innovation. With its dual-core ARM Cortex-M0+ processor, flexible GPIO options, onboard memory, and USB support, it offers everything you need to create IoT systems, robotics solutions, automation controllers, and educational projects.

Whether you are a beginner experimenting with MicroPython or a professional designing embedded systems, this board provides an efficient, affordable, and reliable foundation.

Bring your ideas to life with the **RP2040 Pro Micro Raspberry Pi PICO Development Board** – performance and versatility in the palm of your hand.