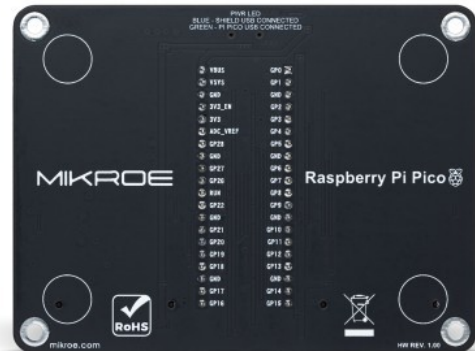
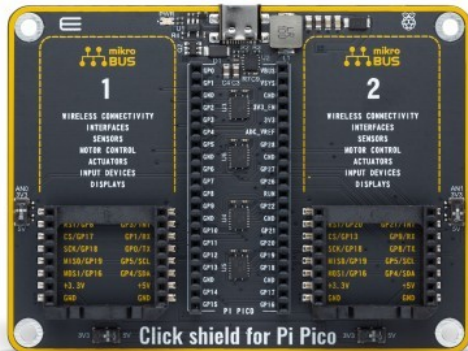


Click Shield for Pi Pico



PID: MIKROE-4985

Click shield for Pi Pico

Mikroe produces entire development toolchains for all major microcontroller architectures.

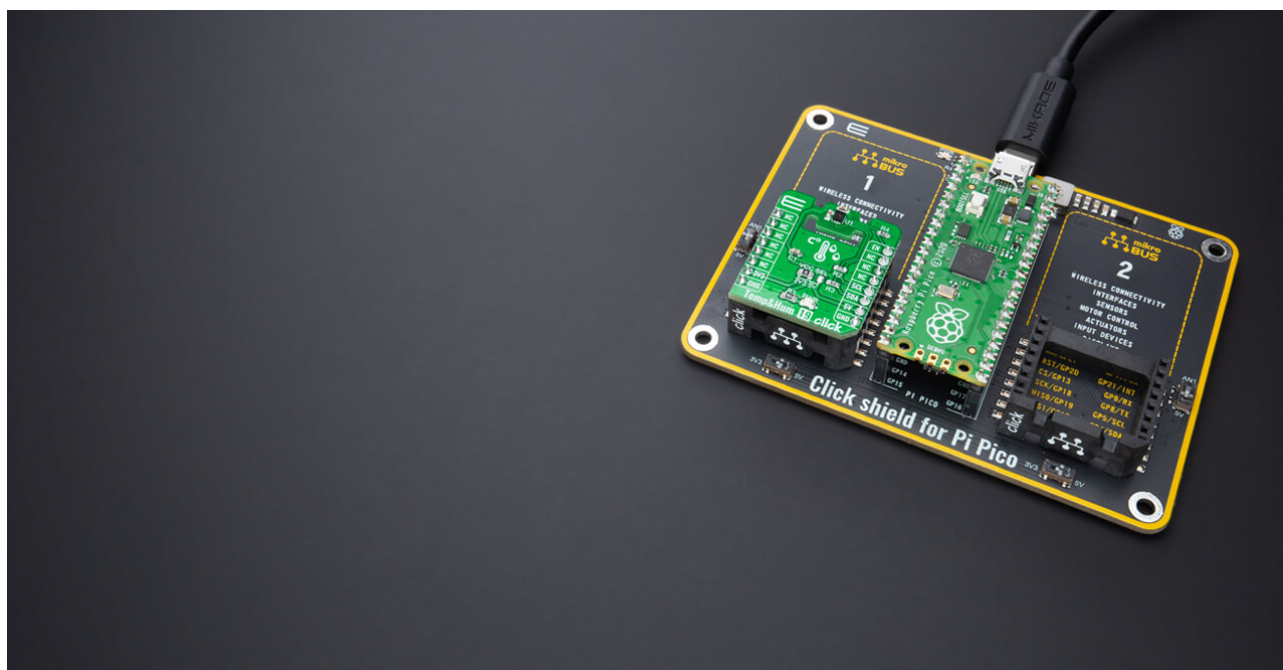
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Overview

Click Shield for Pi Pico is the perfect way to expand your development board's functionalities compatible with [Raspberry Pi Pico](#) pinout. The Click Shield for Pi Pico provides two [mikroBUS™](#) sockets to add any functionality from our ever-growing range of [Click boards™](#). We are fully stocked with everything, from sensors and WiFi transceivers to motor control and audio amplifiers.

The Click Shield for Pi Pico is compatible with Raspberry Pi Pico, a high-performance microcontroller module designed especially for physical computing. It is based on the fast, efficient, and low-cost dual-core ARM Cortex-M0+ RP2040 microcontroller chip running at up to 133 MHz and sporting 264 KB of SRAM and 2 MB of Flash memory. Besides its large memory, the Pico has even more attractive features, including many GPIO pins and popular interface modules like ADC, SPI, I2C, UART, and PWM.

This development platform provides users with an effortless and common way to combine the Raspberry Pi Pico footprint compatible board with their favorite Click boards™ in their upcoming projects.

Note: Raspberry Pi Pico is not included in the package.

CLICK BOARD
COMBINATIONS

Main features

Click Shield for Pi Pico comes equipped with two proprietary mikroBUS™ sockets, allowing all the Click board™ devices to be interfaced with the Raspberry Pi Pico board with no effort at all. This way, Mikroe allows its users to add any functionality from our ever-growing range of Click

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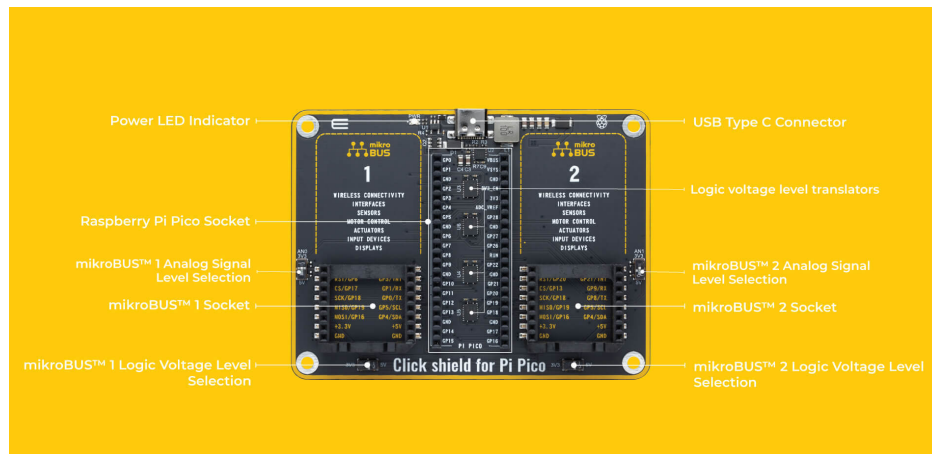


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boards™, such as WiFi, GSM, GPS, Bluetooth, ZigBee, environmental sensors, LEDs, speech recognition, motor control, movement sensors, and many more. More than 1381 Click boards™, which can be stacked and integrated, are at your disposal.



The Raspberry Pi Pico is based on the fast, efficient, and low-cost dual-core ARM Cortex-M0+ RP2040 microcontroller chip running at 133 MHz and sporting 264 KB of SRAM 2 MB of Flash memory, alongside Flash memory, crystal, power supplies, and decoupling, and USB connector. The majority of the RP2040 microcontroller pins are brought to the IO pins on the left and right edge of the board, which are then connected to two existing mikroBUS™ sockets.

This Click Shield also has several switches that perform functions such as selecting the logic levels of analog signals on mikroBUS™ sockets and a selection of logic voltage levels of the mikroBUS™ sockets themselves. Besides, the user is offered the possibility of using any Click board™ with the help of existing bidirectional level-shifting voltage translators, regardless of whether the Click board™ operates at 3.3V or 5V logic voltage level.

Once you connect the Raspberry Pi Pico board with our Click Shield for Pi Pico, it will allow you access to hundreds of Click boards™ working with 3.3V or 5V logic voltage levels. For checking which Click boards™ is compatible with the Raspberry Pi Pico board, please open our [Click Shop filter](#). Our Click boards™ is equipped with a library containing functions and example codes for [Mikroe compilers](#) available on [LibStock](#), which can be used, as a reference, for further development.

Power your inventions

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When the USB type C connector is connected to the Shield, the PWR diode will glow Blue, and at this setup, the connected Raspberry Pi Pico baseboard and two mikroBUS™ sockets will be powered from it.

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When the USB is connected to the Raspberry Pi Pico board, the PWR diode will glow Green, and at this setup, the Raspberry Pi Pico baseboard itself will be powered and provide power to the Shield, including two mikroBUS™ sockets.

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When the USB type C connector is connected to the Shield, and the other USB is connected to the Raspberry Pi Pico board, the PWR diode will glow Cyan, and at this setup, the mikroBUS™ sockets are powered from the Type C connector.

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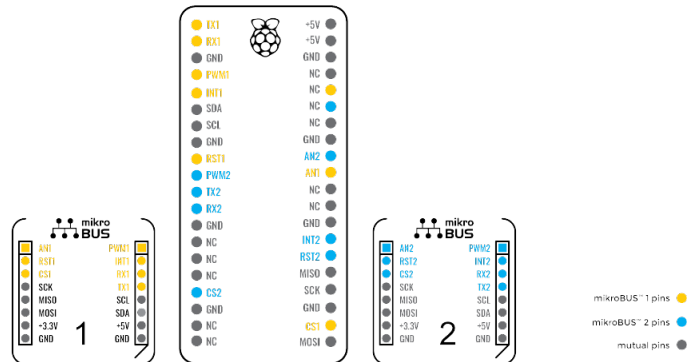


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Raspberry Pi Pico to mikroBUS™ pinout



Specifications

Type	Adapter,Shield
Applications	Click Shield for Pi PICO allows you to use Click boards™ on your Raspberry Pi PICO board
On-board modules	2x mikroBUS™ sockets, connector for connecting compatible Raspberry Pi PICO board, four TXS0108E level-shifting voltage translators, power part for converting 5V USB to the 3.3V
Interface	Analog,GPIO,I2C,PWM,SPI,UART
Compatibility	mikroBUS™ ,Raspberry Pi
Input Voltage	3.3V,5V (via USB)

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click Boards™](#)

Downloads

[Click Shield for Pi Pico schematic](#)

[Click Shield for Pi Pico 2D and 3D files](#)

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