

Pico Breadboard KIT





Contents

User Manual	1
Introduction	3
Features	4
Specification	4
Hardware Dimension	5
Installation Process	. 6



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Introduction

Raspberry Pi Pico Breadboard Kit is a multi-purpose Kit that consists of a "400 points half-size breadboard" on top, a Programmable Buzzer, 4 Programmable LEDs, 4 Pushbuttons, and dedicated 5V, 3v3, and GND pins at a single place. SB Components developed Raspberry Pi Pico Breadboard Kit with advanced features like independently controllable LEDs, Switches, a 400 points half-size breadboard that helps the user to prototype their projects with Raspberry Pi Pico in an efficient way.

Raspberry Pi Pico Breadboard Kit can be interfaced with Raspberry Pi Pico from which a user can run electronics experiments, prototypes, mini robots, games, interact with Linux-ready Raspberry Pi, Exploration of circuits, etc. One can also connect external components with the breadboard provided on the top of the Raspberry Pi Pico Breadboard Kit.



Features

- Four independent controlled LEDs.
- Four independent controlled Push Buttons.
- Compatible with Pico.
- A 400 points half-size breadboard.
- Programmable Buzzer.
- Dedicated 5v, 3v3, and Gnd Pins for easy interface.

Specification

- Operating Voltage 3.3V DC
- Communication Interface GPIO Header
- Dimensions: 85mm × 133 mm (Approx.)



Hardware Dimension





Installation Process

MicroPython

- Connect Raspberry Pi Pico on female header of Pico Breadboard Kit.
- Connect USB cable on Raspberry Pi Pico USB port.
- Use jumper cables to connect Switches, LEDs and Buzzer with Raspberry Pi Pico GPIO headers.
- Open Thonny IDE and Choose interpreter as MicroPython (Raspberry Pi pico)



• Now use example code "Test.py" from pico breadboard kit's github repository in thonny IDE.



Source code : <u>https://github.com/sbcshop/Raspberry-Pi-Pico-Breadboard-Kit</u>

• Copy and paste code in thonny ide, and change pin number as per your connection.

File Edi	it View Run Tools Help	
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Test.pv	x	
		^
13	while 1:	
14	b1 = button1.value() # Button Button Pressed = 1	
15		
16	<pre>led1.toggle()</pre>	
17	<pre>led2.toggle()</pre>	
18	led3.toggle()	
19	led4.toggle()	
20		
21	buz.toggle()	
22		
23	if b1:	
24	print('Button 1 pressed!')	
25	utime.sleen(0.5)	
26	else:	
27	print('Button 1 Released!')	
28	utime.sleep(0.5)	
29		
30	utime.sleep(0.5)	~
Shell ×		



• Choose the interpreter as MicroPython (Raspberry Pi pico).

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	General Interpreter Editor Theme & Font Run & Debug Terminal Shell Assistant	
	Which interpreter or device should Thonny use for running your code?	
	MicroPython (Raspberry Pi Pico)	\sim
	Alternative Python 3 interpreter or virtual environment Remote Python 3 (SSH) MicroPython (SSH) MicroPython (BBC micro:bit) MicroPython (ESP32) MicroPython (ESP32) MicroPython (generic) CircuitPython (generic) A special virtual environment (deprecated)	
	Install or update firmwa	are

• Click on the green play button to run example on Pico Breadboard Kit.



Note : Led's, Buzzer and Switches are not internally connected with any GPIO of Raspberry Pi Pico, One can use any available GPIO pin of Raspberry Pi Pico with the help of jumper wires.