Raspberry Pi Pico HAT Expansion

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Introduction

Raspberry Pi Pico HAT Expansion is an input/output expansion board designed for the Raspberry Pi Pico, which provides one set of 2x20 pin headers in the form of a Raspberry Pi Header along with one set of 2 x 20 pin. It means that one can plug any HAT designed for Raspberry Pi with the Raspberry Pi Pico via the Raspberry Pi Pico HAT Expansion that would make the user perform the advanced functions on it.

Raspberry Pi Pico HAT Expansion has the space on its board for any HAT. One can plug Raspberry Pi Pico and a HAT by directly putting it on the Raspberry Pi Pico HAT Expansion that has the power pins for the connection. Raspberry Pi Pico Expansion is a board on which, clear and descriptive pin labels make the process easier for the user.

Pin Out

PIN	RPi GPIO	PICO			PIN	RPi GPIO	PICO
1	3V3	3V3	●	●	2	5V	5V
3	GPIO2	GP20	●	●	4	5V	5V
5	GPIO3	GP21	●	●	6	GND	GND
7	GPIO4	GP6	●	●	8	GPIO14	GP0
9	GND	GND	●	●	10	GPIO15	GP1
11	GPIO17	GP7	●	●	12	GPIO18	GP28
13	GPIO27	GP8	●	●	14	GND	GND
15	GPIO22	GP9	●	●	16	GPIO23	GP27
17	3V3	3V3	●	●	18	GPIO24	GP26
19	GPIO10	GP3	●	●	20	GND	GND
21	GPIO9	GP4	●	●	22	GPIO25	GP22
23	GPIO11	GP2	●	●	24	GPIO8	GP5
25	GND	GND	●	●	26	GPIO7	GP19
27	X	X	●	●	28	X	X
29	GPIO5	GP10	●	●	30	GND	GND
31	GPIO6	GP11	●	●	32	GPIO12	GP18
33	GPIO13	GP12	●	●	34	GND	GND
35	GPIO19	GP13	●	●	36	GPIO16	GP17
37	GPIO26	GP14	●	●	38	GPIO20	GP16
39	GND	GND	●	●	40	GPIO21	GP15

I2C — SPI (left side labels)
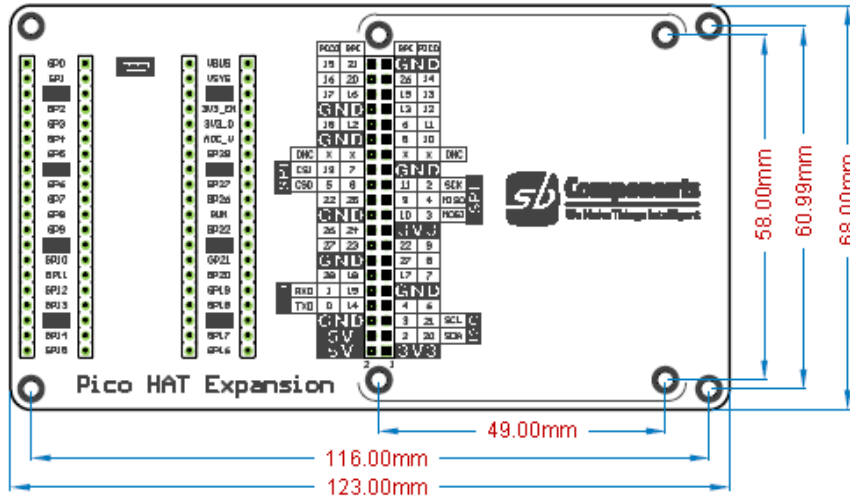
UART — CS (right side labels)

Features

- 2x20 pins header
- Clear and descriptive pin labels
- Connect any HAT
- Raspberry Pi Connector for connecting HAT

Specification

- Interface - 2x20 Male Berg Connector
- Compatibility - Raspberry Pi HAT/ Shield
- Connectors - Jumper Cable/ Stackable
- Compatible with Raspberry Pi Pico
- On-board female Header for Pico
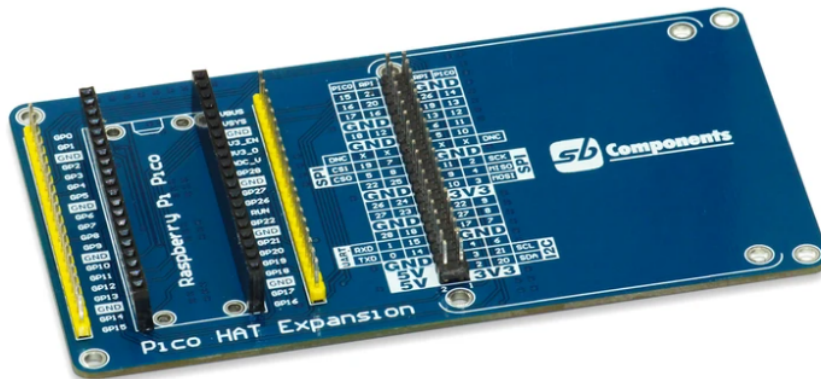
Hardware Dimension

View from Front side (Scale 1:1)
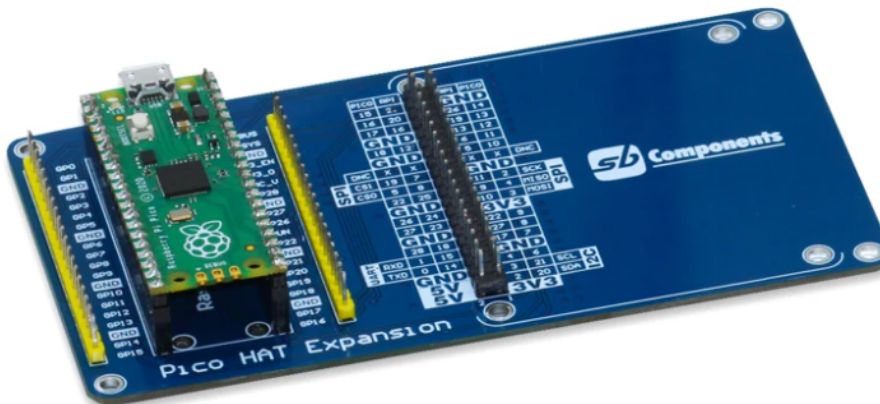

View from Bottom side (Scale 1:1)
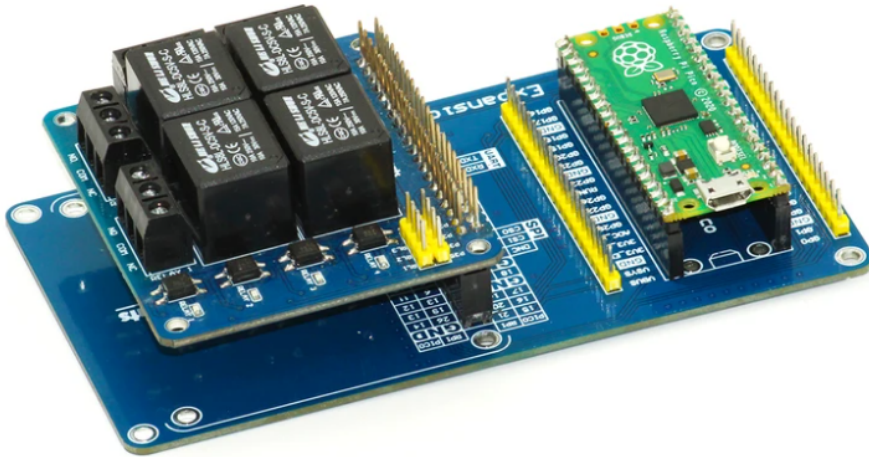
Installation Process

- Take Raspberry Pi Pico HAT Expansion

- Stack Raspberry Pi Pico on female 40 pins header of Raspberry Pi Pico HAT Expansion board as shown in picture below

- Stack any 40 pins Raspberry Pi compatible HAT on dedicated standard GPIO header as shown in picture below.

Note : Other than Power Pins and special purpose pins, all other GPIO Pins are not exactly the same as the Raspberry Pi. Please check the above Pinout diagram for actual pinout mapping for Raspberry Pi Pico.