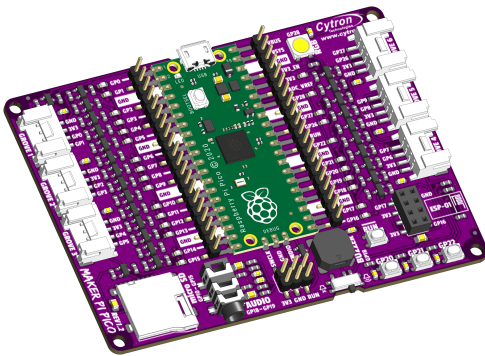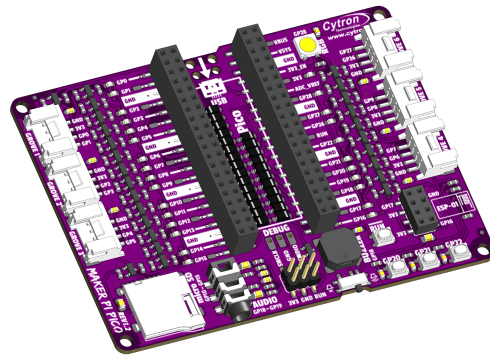# MAKER PI PICO
Simplifying Raspberry Pi Pico for Beginner

MAKER-PI-PICO

MAKER-PI-PICO-NB

Datasheet

Rev 1.2
March 2021

1. BOARD LAYOUT & FUNCTION

Figure 1: MAKER-PI-PICO Board Functions
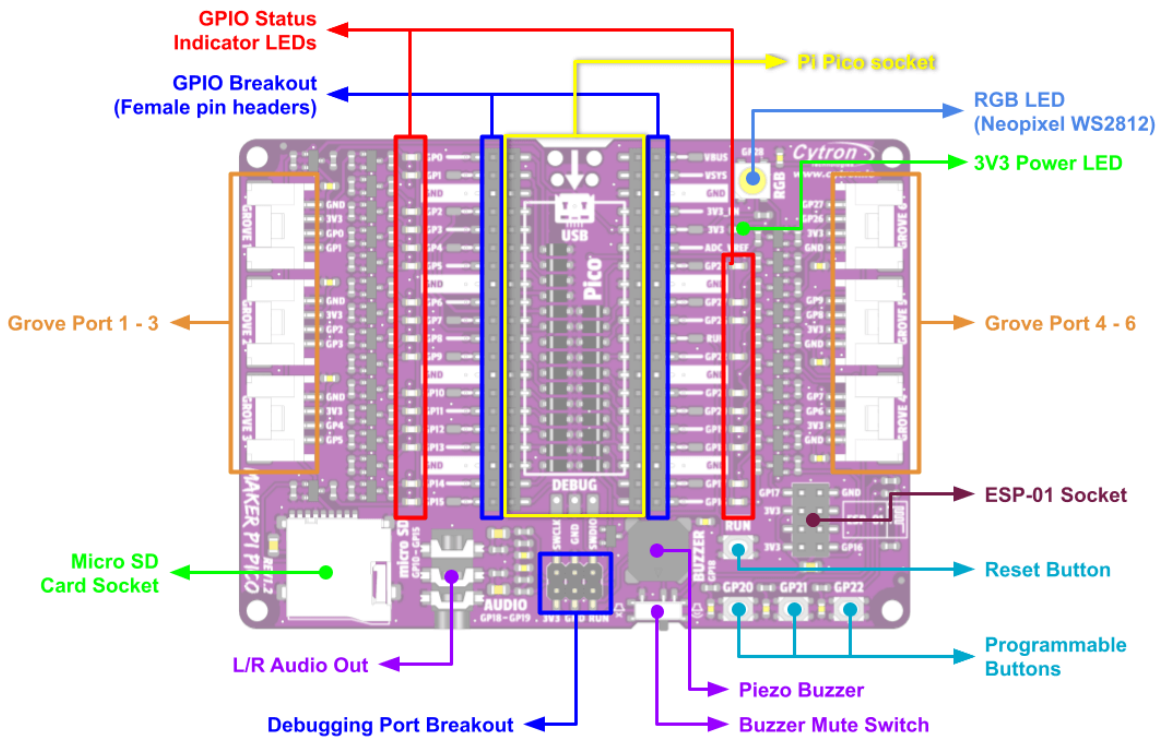
Figure 2: MAKER-PI-PICO-NB Board Functions

Function	Description
Micro USB Port *MAKER-PI-PICO only*	Used to power up the Maker Pi Pico and upload programs from PC.
3V3 Power LED	LED indicator for 3V3. Turn on when powered up.
GPIO LEDs	LED indicator for Raspberry Pi Pico GPIO. Turn on when the GPIO state is high.
WS2812B RGB LED	User programmable WS2812B RGB LED. Connected to GP28.
GPIO Breakout	Breakout of the Raspberry Pi Pico GPIO pins. * MAKER-PI-PICO = Male Pin Headers * MAKER-PI-PICO-NB = Female Pin Headers
Debugging Port Breakout	Breakout of the Raspberry Pi Pico debugging port.
Reset Button	Press to reset the Raspberry Pi Pico.
Programmable Buttons	Connected to pin GP20, GP21 and GP22 respectively. Accessible from the user program. * Rev1.0.0 to 1.1.0 = To enable internal pull-up in software. * Rev1.2.0 = Pulled-up permanently on hardware with debouncing capacitor.
Piezo Buzzer	Can be used to play tone or melody. Connected to GP18.
Buzzer Mute Switch	Used to mute the piezo buzzer.
Audio Out	Non amplified audio output. Can be connected to an earphone or amplified speaker. ● Left Channel : GP18 ● Right Channel : GP19
ESP-01 Socket	Socket for ESP-01 ESP8266 WiFi module. Can be used to IoT-enabled your project.
Micro SD Card Socket	Socket for micro SD Card.

Socket for micro SD Card.

Raspberry Pi Pico GPIO	SD Card	
	SD Mode	**SPI Mode**
GP10	CLK	SCK
GP11	CMD	SDI
GP12	DAT0	SDO
GP13	DAT1	X
GP14	DAT2	X
GP15	CD/DAT3	CSn

* Unused pins must be configured as internal pull-up.

Function	Description
Pi Pico Socket *MAKER-PI-PICO-NB only*	Socket for Raspberry Pi Pico. Can be used with [Raspberry Pi Pico with Pre-soldered Headers](#).

Table 1: MAKER-PI-PICO & MAKER-PI-PICO-NB Board Functions

2. RASPBERRY PI PICO PINOUT DIAGRAM

Figure 3: Raspberry Pi Pico Pinout Diagram
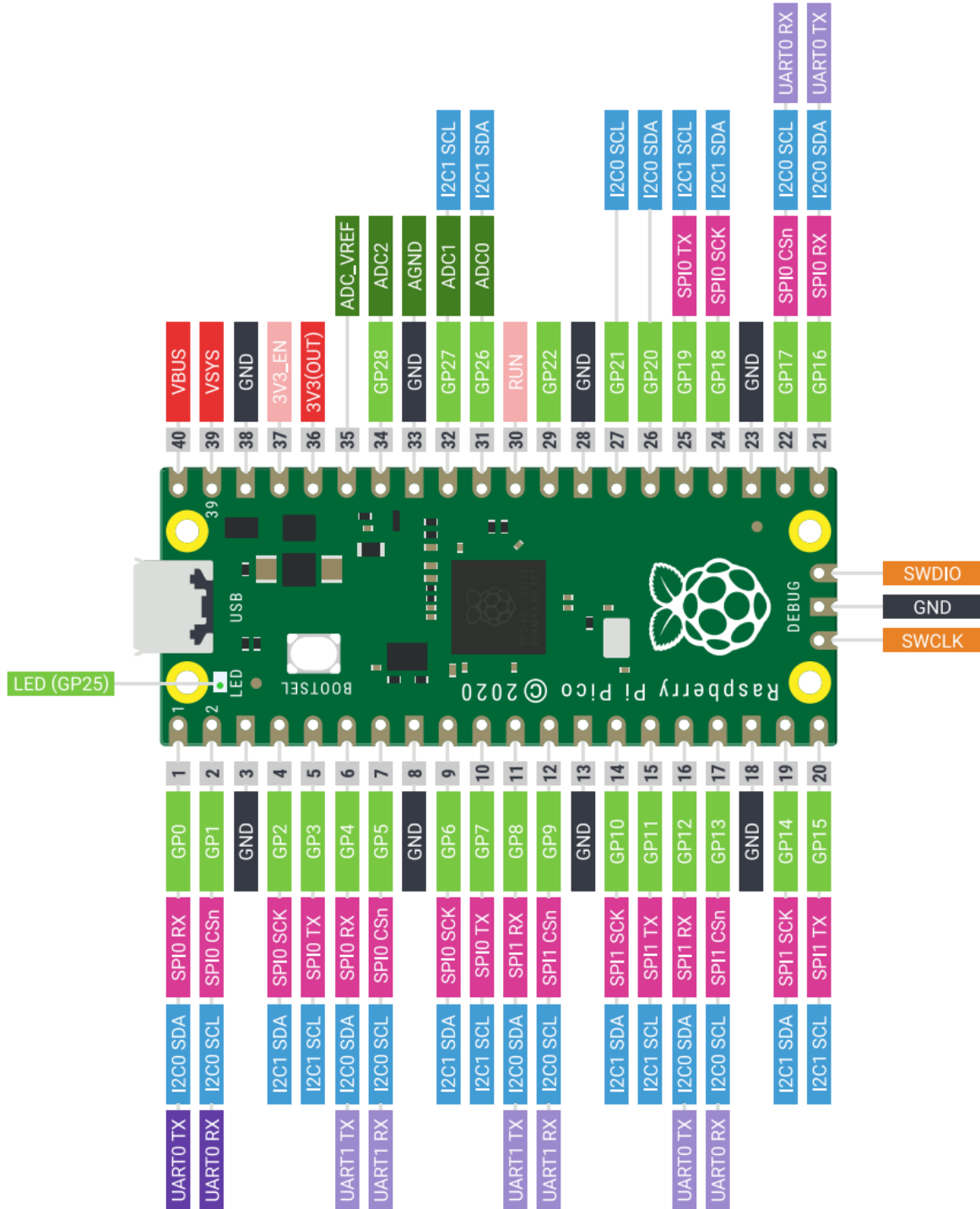
3. SPECIFICATIONS

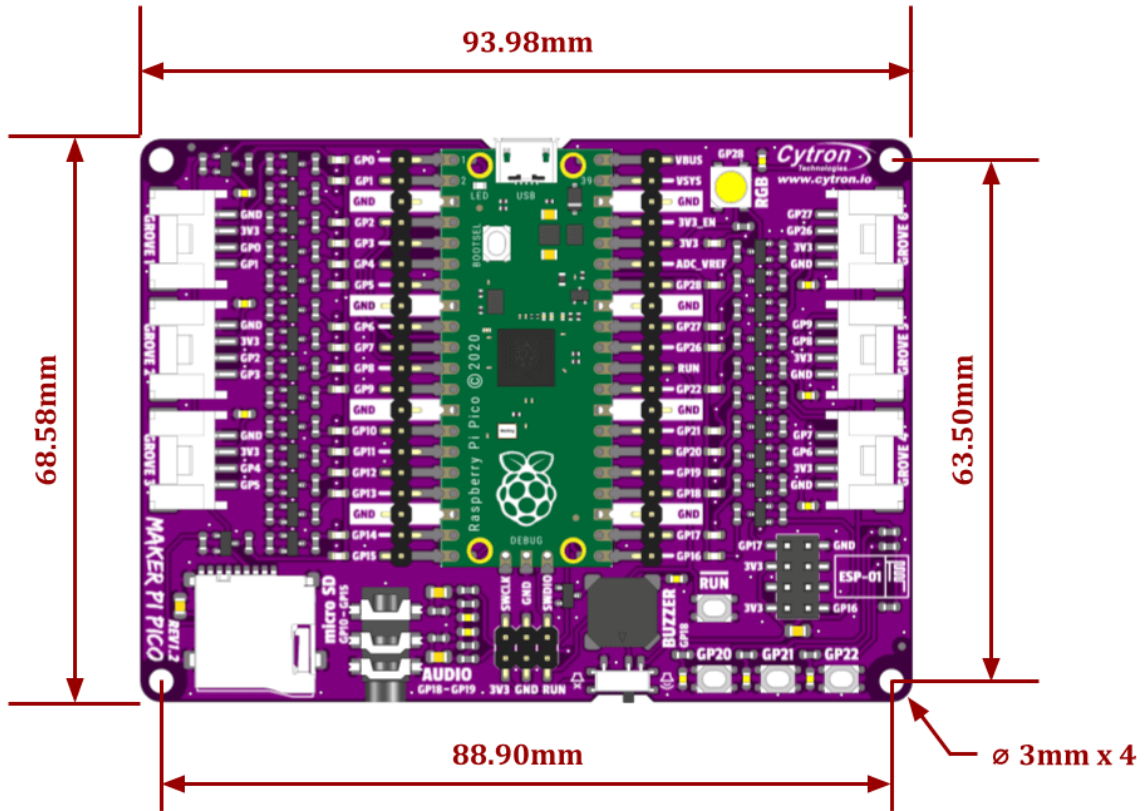| No	Parameters		Min	Max	Unit
1	Power Input Voltage (USB)		4.5	5.5	VDC
2	Digital Input Voltage	Low Level	-0.3	0.8	V
		High Level	2.0	3.6	V
3	Digital Output Voltage	Low Level	0	0.5	V
		High Level	2.62	3.3	V
4	Analog Input Voltage		0	3.3	V
5	Operating Temperature		-20	85	℃

Table 2: MAKER-PI-PICO Absolute Maximum Ratings
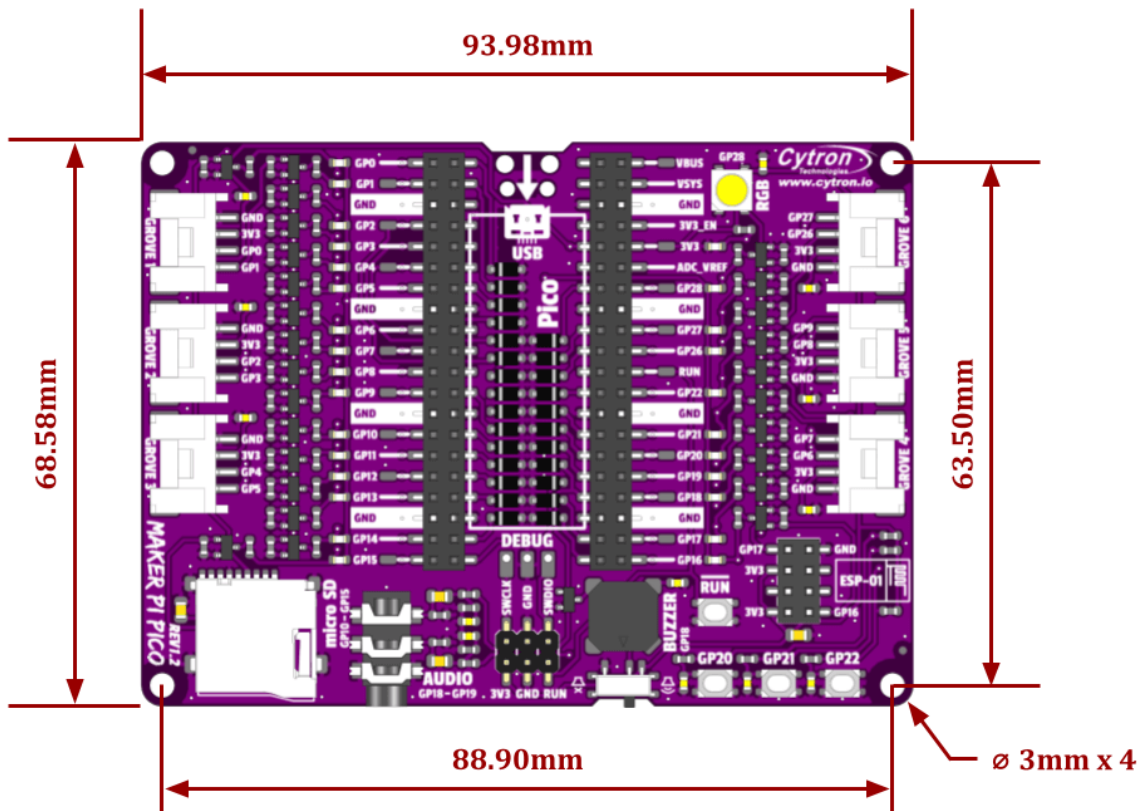
4. DIMENSION

Figure 4: MAKER-PI-PICO Dimension

Figure 5: MAKER-PI-PICO Dimension

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