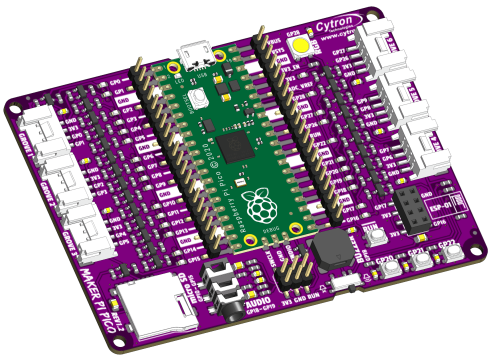
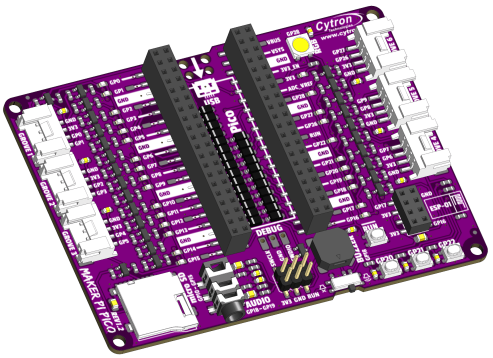
MAKER PI PICO

Simplifying Raspberry Pi Pico for Beginner



MAKER-PI-PICO



MAKER-PI-PICO-NB

Datasheet

Rev 1.2
March 2021

1. BOARD LAYOUT & FUNCTION

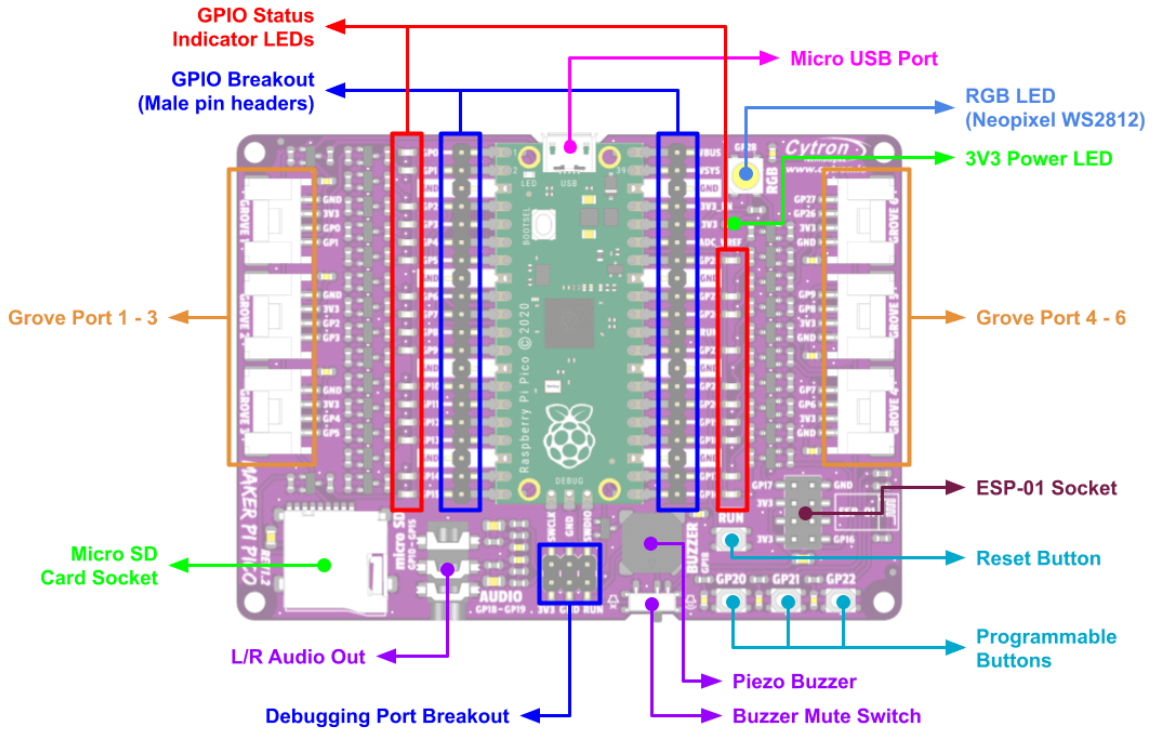


Figure 1: MAKER-PI-PICO Board Functions

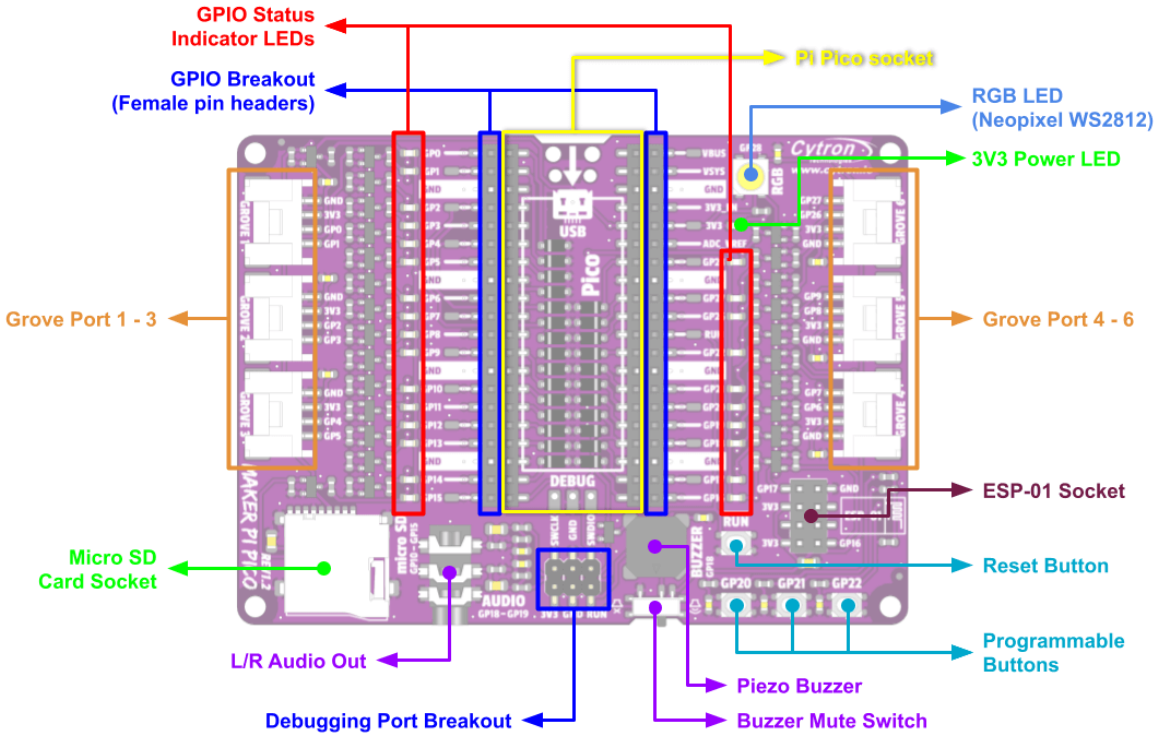


Figure 2: MAKER-PI-PICO-NB Board Functions

<table>
<tr><th>Function</th><th>Description</th></tr>
<tr><td>Micro USB Port
*MAKER-PI-PICO only</td><td>Used to power up the Maker Pi Pico and upload programs from PC.</td></tr>
<tr><td>3V3 Power LED</td><td>LED indicator for 3V3. Turn on when powered up.</td></tr>
<tr><td>GPIO LEDs</td><td>LED indicator for Raspberry Pi Pico GPIO.
Turn on when the GPIO state is high.</td></tr>
<tr><td>WS2812B RGB LED</td><td>User programmable WS2812B RGB LED. Connected to GP28.</td></tr>
<tr><td>GPIO Breakout</td><td>Breakout of the Raspberry Pi Pico GPIO pins.
* MAKER-PI-PICO = Male Pin Headers
* MAKER-PI-PICO-NB = Female Pin Headers</td></tr>
<tr><td>Debugging Port Breakout</td><td>Breakout of the Raspberry Pi Pico debugging port.</td></tr>
<tr><td>Reset Button</td><td>Press to reset the Raspberry Pi Pico.</td></tr>
<tr><td>Programmable Buttons</td><td>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.</td></tr>
<tr><td>Piezo Buzzer</td><td>Can be used to play tone or melody.
Connected to GP18.</td></tr>
<tr><td>Buzzer Mute Switch</td><td>Used to mute the piezo buzzer.</td></tr>
<tr><td>Audio Out</td><td>Non amplified audio output. Can be connected to an earphone or amplified speaker.
● Left Channel : GP18
● Right Channel : GP19</td></tr>
<tr><td>ESP-01 Socket</td><td>Socket for ESP-01 ESP8266 WiFi module.
Can be used to IoT-enable your project.</td></tr>
<tr><td>Micro SD Card Socket</td><td>Socket for micro SD Card.
<table>
<tr><th rowspan="2">Raspberry Pi Pico GPIO</th><th colspan="2">SD Card</th></tr>
<tr><th>SD Mode</th><th>SPI Mode</th></tr>
<tr><td>GP10
GP11
GP12
GP13
GP14
GP15</td><td>CLK
CMD
DAT0
DAT1
DAT2
CD/DAT3</td><td>SCK
SDI
SDO
X
X
CSn</td></tr>
</table>
* Unused pins must be configured as internal pull-ups.</td></tr>
<tr><td>Pi Pico Socket
*MAKER-PI-PICO-NB only</td><td>Socket for Raspberry Pi Pico.
Can be used with Raspberry Pi Pico with Pre-soldered Headers.</td></tr>
</table>

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

2. RASPBERRY PI PICO PINOUT DIAGRAM

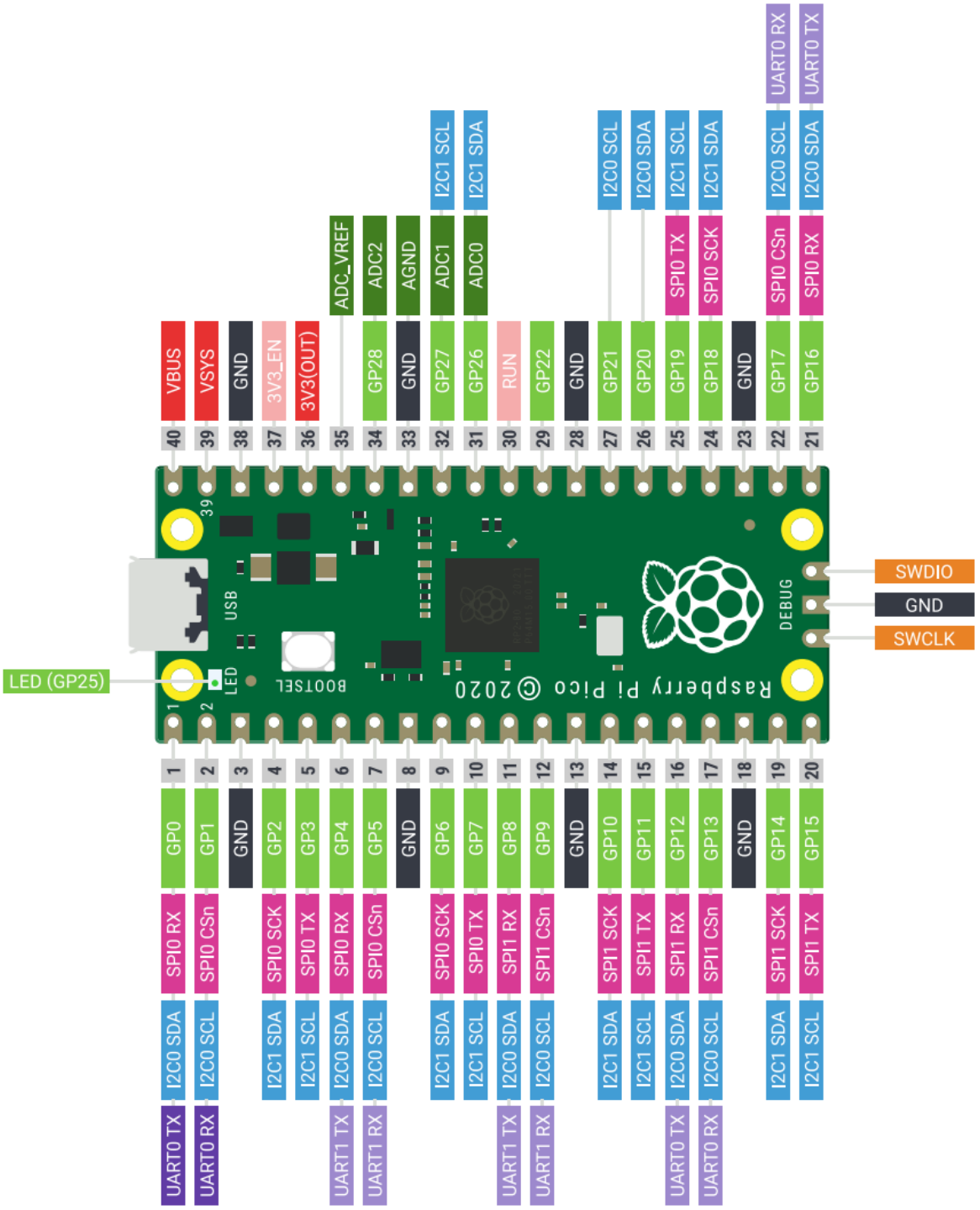


Figure 3: Raspberry Pi Pico Pinout Diagram

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

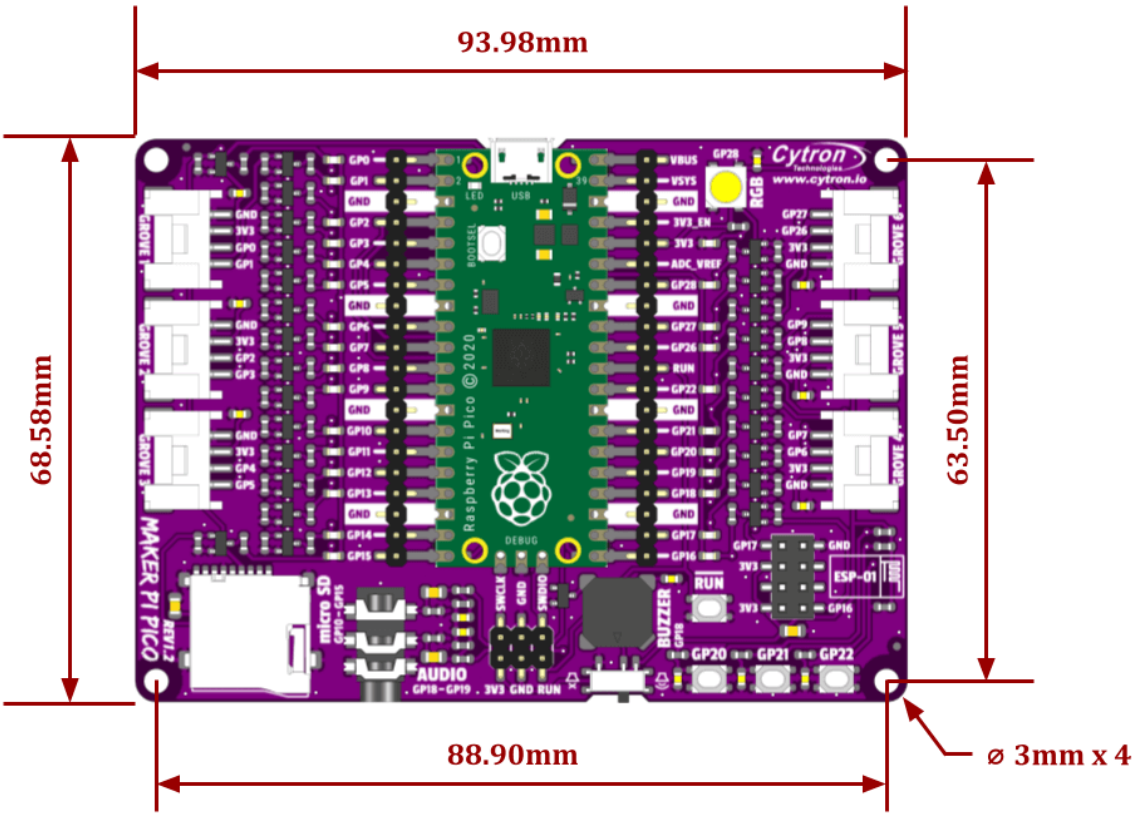


Figure 4: MAKER-PI-PICO Dimension

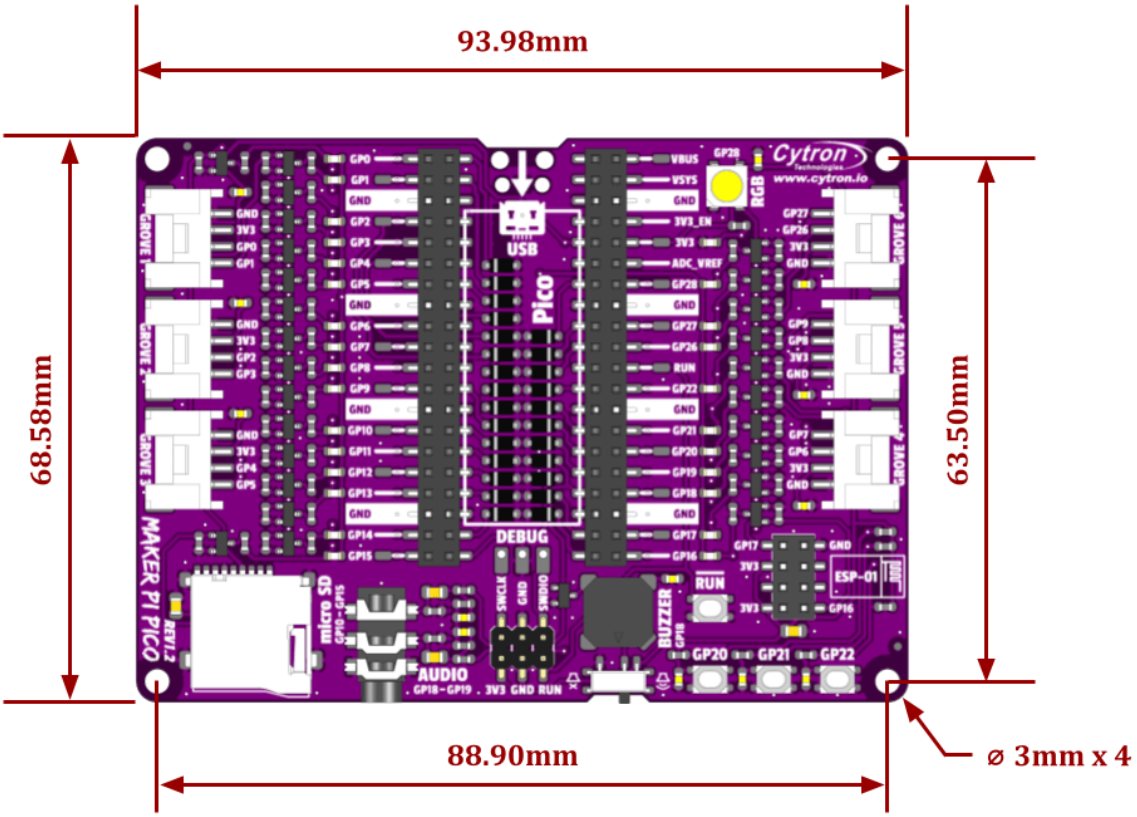


Figure 5: MAKER-PI-PICO Dimension

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