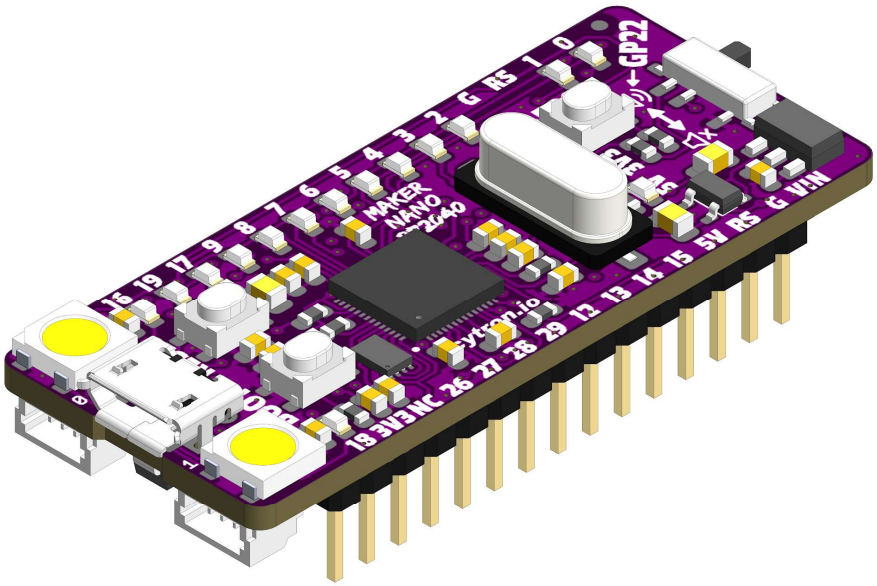
MAKER-NANO-RP2040

Simplifying Projects with Raspberry Pi RP2040



Datasheet

Rev 1.0
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1. BOARD LAYOUT & FUNCTION

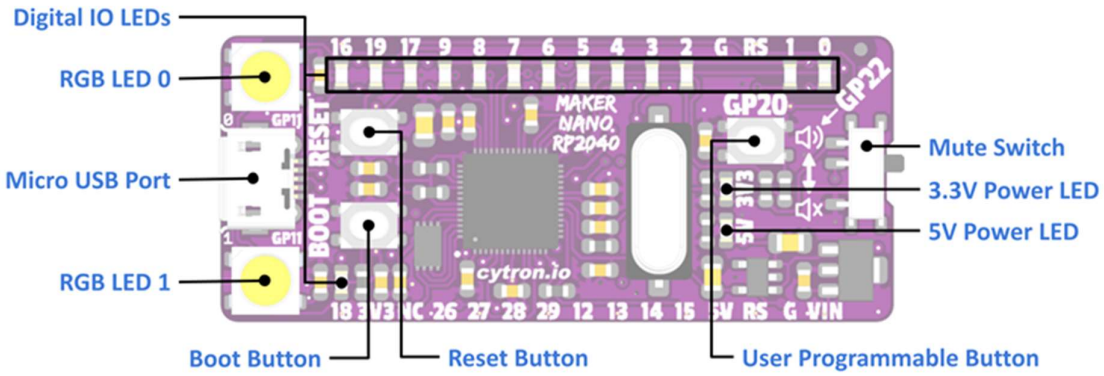

Figure 1: MAKER-NANO-RP2040 Board Functions (Top)

Function	Description
Digital IO LEDs	LED indicator for digital IO GP0 - GP9, GP16 - GP18. Turn on when the IO state is high.
RGB LED 0	User programmable WS2812B RGB LEDs. Connected to GP11.
RGB LED 1	
Micro USB Port	Used for upload programs from PC. It's used to power up the board too.
Boot Button	Press and hold this button while resetting the RP2040 will enter the bootloader mode. Used to upload programs from Arduino IDE or upload the MicroPython/CircuitPython firmware.
Reset Button	Press to reset the RP2040.
User Programmable Button	Accessible from the user program. Connected to GP20.
5V Power LED	Turn on when powered up.
3.3V Power LED	
Mute Switch	Used to mute the piezo buzzer if pin D8 is used for other purposes.

Table 1: MAKER-NANO-RP2040 Board Functions (Top)

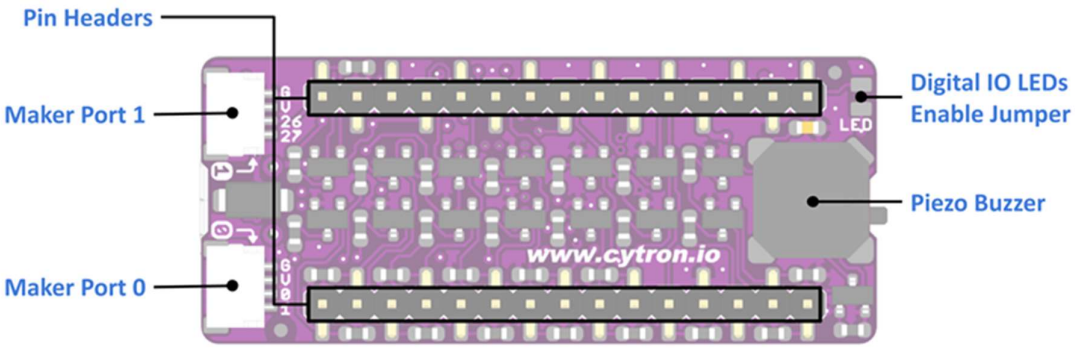

Figure 2: MAKER-NANO-RP2040 Board Functions (Bottom)

Function	Description
Pin Header	Used for external connection. Compatible with original Arduino Nano.
Maker Port 0	JST-SH 4-Ways Connector for external modules. Compatible with Qwiic, STEMMA QT and Grove (Via Conversion Cable). ● **Maker Port 0**: GPIO, I2C, UART ● **Maker Port 1**: GPIO, I2C, Analog In
Maker Port 1	
Piezo Buzzer	Programmable piezo buzzer. Able to play tone or melody. Connected to GP22.
Digital IO LEDs Enable Jumper	Cut the trace to disable the digital IO LEDs. This can be done to save power or reduce the distraction from digital IO LEDs.

Table 2: MAKER-NANO-RP2040 Board Functions (Bottom)

2. PINOUT DIAGRAM

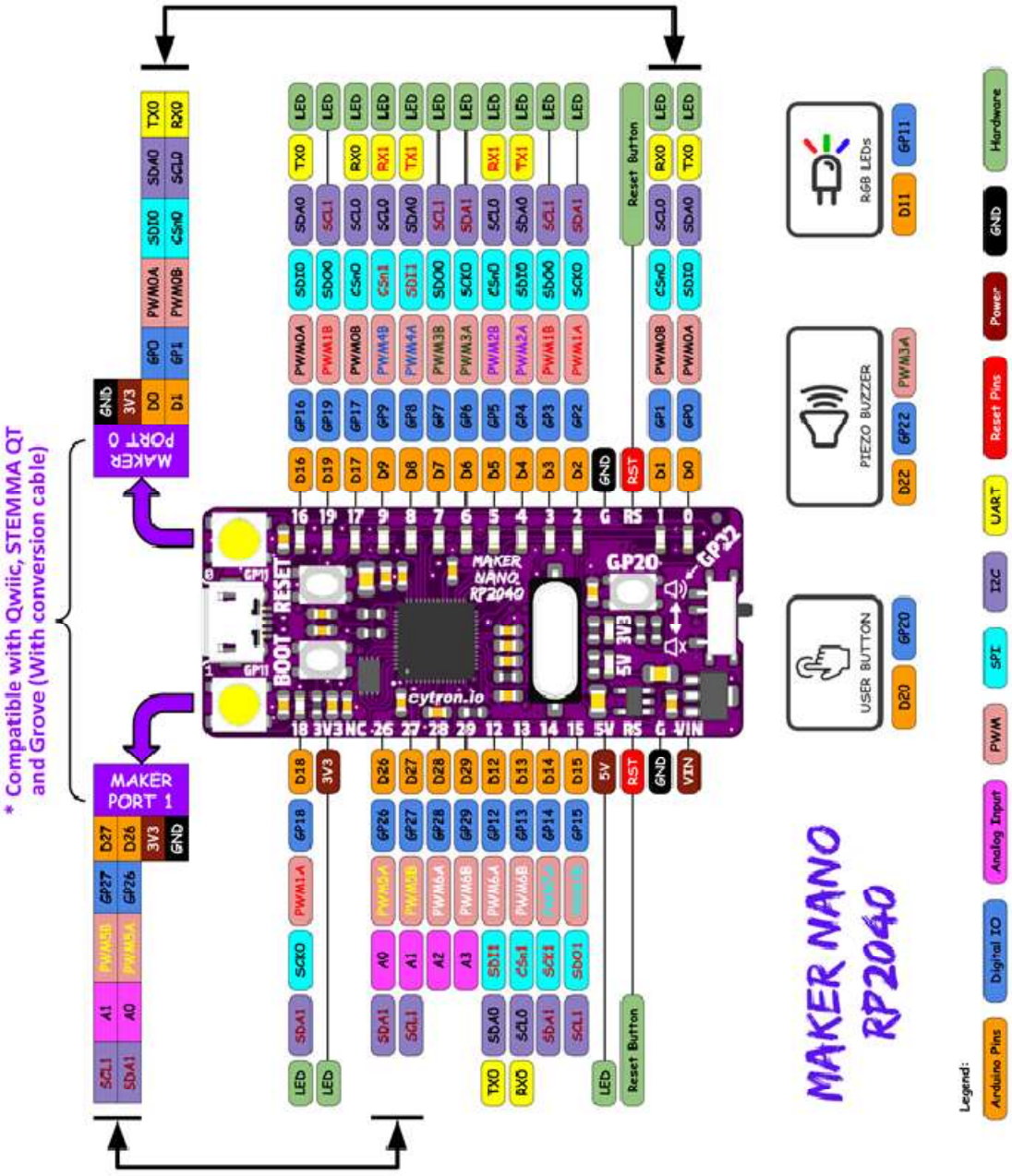

Figure 3: MAKER-NANO-RP2040 Pinout Diagram

3. SPECIFICATIONS

No	Parameters		Min	Max	Unit
1	Power Input Voltage (Vin)		7.0	30.0	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	2.6	3.3	V
4	Analog Input Voltage		0	3.3	V
5	DC +5V Maximum Current (Including Onboard Usage)		-	100	mA
6	DC +3V3 Maximum Current (Including Onboard Usage)		-	500	mA
7	USB VID & PID (CircuitPython & Arduino Core)	VID	0x2E8A		
		PID	0x100F		

Table 3: MAKER-NANO-RP2040 Absolute Maximum Ratings

4. DIMENSION

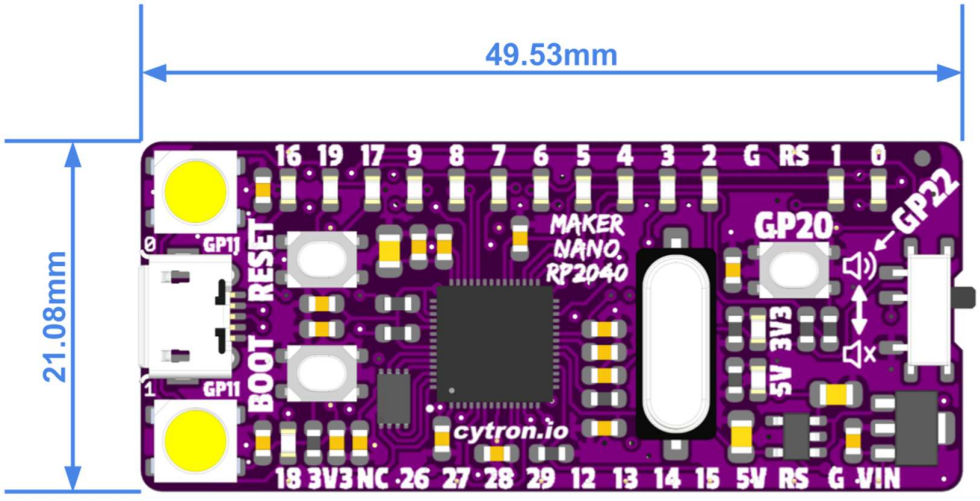

Figure 4: MAKER-NANO-RP2040 Dimension

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