

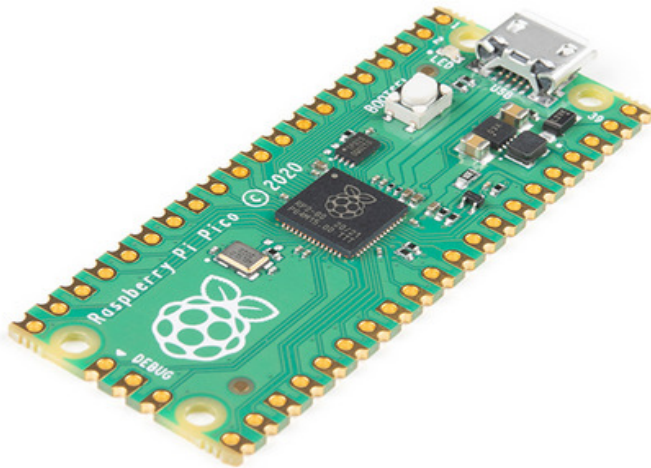
rpi-pico-v6  
Jed Margolin

Raspberry Pi Pico Development Board  
6/20/2024

Bill of Material

RefDes	Value	Description	Lead Spacing
C1	100 uF	Capacitor, Electrolytic	0.1"
C2	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C3	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C4	10 uF	Capacitor, Electrolytic	0.1"
C5	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C6	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C7	10 uF	Capacitor, Electrolytic	0.1"
C8	4.7 uF	Capacitor, Electrolytic	0.1"
C9	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C10	100 uF	Capacitor, Electrolytic	0.1"
C11	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C12	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C13	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C14	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C15	1000 pF	Capacitor, Monolythic Ceramic	0.1"
C16	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C17	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
C18	10 uF	Capacitor, Electrolytic	0.1"
C19	0.1 uF	Capacitor, Monolythic Ceramic	0.1"
D1	1N5817	Schottky Diode	
D2	1N5817	Schottky Diode	
D3	1N5817	Schottky Diode	
J1		Male Header 1x5, 0.1" spacing	Straight
J2		Male Header 1x3, 0.1" spacing	Right angle
J3		Male Header 1x6, 0.1" spacing	Right Angle
LCD1		LCD1602 16 x 2 (Parallel Only)	
For the LCD			
(4) M3x10 Nylon Standoffs			
(4) M3 Washers, 1mm thick			
(8) M3 x 6 Screws			
Male Header, 1x16, 0,1" spacing (on the LCD)			
Female Header, 1x16, 0,1" spacing (on the PCB)			
LED1		LED, 5 mm, Green	LED
LED2		LED, 5 mm, Green	LED
LED3		LED, 5 mm, Red	LED
PB1		Switch, Pushbutton, B3F-1070	
PB2		Switch, Pushbutton, B3F-1070	
PB3		Switch, Pushbutton, B3F-1070	
PB4		Switch, Pushbutton, B3F-1070	

R1	220K	Resistor, carbon film, 1/4W 5%	RES400
R2	10K	TrimPot: 3362P (1-turn)	
R3	100	Resistor, carbon film, 1/4W 5%	RES400
R4	47K	Resistor, carbon film, 1/4W 5%	RES400
R5	1K	Resistor, carbon film, 1/4W 5%	RES400
R6	10K	TrimPot: 3362P (1-turn) or 3296W (25-turn)	
R7	10K	Resistor, carbon film, 1/4W 5%	RES400
R8	10K	Resistor, carbon film, 1/4W 5%	RES400
R9	1K	Resistor, carbon film, 1/4W 5%	RES400
R10	1K 1%	Resistor, metal film, 1/4W 1%	RES400
R11	1K 1%	Resistor, metal film, 1/4W 1%	RES400
R12	4.7K	Resistor, carbon film, 1/4W 5%	RES400
SW1	SPDT	The SPDT switch pins are on 0.1" centers.	
SW2	SPDT	They are really inexpensive on eBay and AliExpress where they are called	
SW3	SPDT	<b>“SS12D00G3 2 Position SPDT 1P2T 3 Pin PCB Panel Slide Switch”.</b>	
U1	7805	Voltage Regulator, TO-220, 5V	
U2	LD1117-3.3V	Voltage Regulator, TO-220, 3.3V	
U3	Pico	Raspberry Pi Pico or Pico W (2) Male Header 1x20, 0.1" spacing, straight (on Pico) (1) Male Header 1x3, 0.1" spacing, straight (debugger port, on Pico) (2) Female Header 1x20, 0.1" spacing, straight (on PCB)	



Plain Pico  
Solder the headers yourself with a temperature controlled soldering iron (350 deg C)

U4            nrf905      RF Module  
Female Header 2x7, 0.1" spacing, straight  
Or get 2x8 and grind off one position



U5            DS3231      Real Time Clock Module  
(1) Male Header 1x5, 0.1" spacing, straight



Get this type

U6            MCP6002    OpAmp, 8-pin DIP  
IC Socket with Machine Tooled Pins

For the Board  
(4) M3x18 Nylon Standoffs  
(4) M3 x 6 Screws