

Peripheral Controller PCB Bill of Materials

09 - December - 2023

Jessica McArthur

Item Number	Quantity	Component Type	Value	Project Component(s) Included	Package	Supplier	Part Number	Cost/Part (Based on 100 QTY)	Cost/ PCB	Cost for 100 PCB
1	1	Voltage Regulator	3.3V, 1A	U1	SMD- SOT-223	Digi-Key Electronics	LMS8117AMP-3.3/NOPBTR-ND	\$0.87	\$0.87	\$87.34
2	1	Microcontroller	PIC16LF1788	U2	SMD- SSPO-28	Digi-Key Electronics	PIC16F1788-I/SS-ND	\$2.14	\$2.14	\$214.00
3	1	Resistor	2.2KΩ	R1	SMD- 0805	Digi-Key Electronics	13-AC0805FR-7W2K2LTR-ND	\$0.03	\$0.03	\$2.69
4	1	Resistor	10KΩ	R2	SMD- 0805	Digi-Key Electronics	RNCP0805FTD10K0TR-ND	\$0.03	\$0.03	\$2.71
5	7	Resistor	100Ω	R3, R4, R5, R6, R8, R9, R11	SMD- 0805	Digi-Key Electronics	RNCP0805FTD100RCT-ND	\$0.03	\$0.21	\$20.79
6	4	Resistor	1KΩ	R7, R10, R12, R13,	SMD- 0805	Digi-Key Electronics	RNCP0805FTD1K00TR-ND	\$0.03	\$0.11	\$10.84
7	10	Resistor	330Ω	R14, R15, R16, R17, R18, R19, R20, R21, R22, R23	SMD- 0805	Digi-Key Electronics	13-RC0805FR-7W330RLTR-ND	\$0.05	\$0.50	\$49.90
8	2	Capacitor	10μF, 6.3V	C1, C3	SMD- 0805	Digi-Key Electronics	399-C0805C106K9PAC7800TR-ND	\$0.05	\$0.10	\$10.10
9	2	Capacitor	1μF, 6.3V	C2, C4	SMD- 0805	Digi-Key Electronics	399-13161-2-ND	\$0.06	\$0.12	\$11.68
10	4	Capacitor	.010μF, 6.3V	C5, C6, C7, C8	SMD- 0805	Digi-Key Electronics	399-17649-2-ND	\$0.15	\$0.60	\$60.44
11	1	LED	Green	D1	SMD- 0805	Digi-Key Electronics	1497-1435-2-ND	\$0.23	\$0.23	\$22.53
12	1	Diode	1N4148	D2	SMD- SOD323	Digi-Key Electronics	1N4148WXTPMSTR-ND	\$0.04	\$0.04	\$3.68
13	1	LED Array Bar	Red, 10 wide	BAR1	THD	Digi-Key Electronics	160-1066-ND	\$0.62	\$0.62	\$62.16
14	1	Dip Switch	Single SPST	SW1	SMD	Digi-Key Electronics	563-CFS-0102TR-ND	\$0.72	\$0.72	\$72.46
15	6	Tactile Switch	SPST-NO 0.05A 12V	SW2, SW3, SW4, SW5, SW7, SW8	THD	Digi-Key Electronics	CKN9092-ND	\$0.18	\$1.10	\$110.16
16	1	Rotary Encoder Switch	Incremental (Quadrature)	SW6	THD-Vertical	Digi-Key Electronics	PEC12R-2125F-N0012-ND	\$0.97	\$0.97	\$97.11
17	1	Rotary Encoder Switch	Incremental (Quadrature)	SW9	THD-Horizontal	Digi-Key Electronics	PEC12R-4125F-N0012-ND	\$0.97	\$0.97	\$97.11
18	1	Connector	Terminal Block - 2 screw terminals	J1	THD - 2 pins, .200"	Digi-Key Electronics	1716080000-ND	\$0.55	\$0.55	\$54.59
19	1	Connector	PinHeader 1x05	J2	THD - 0.100" (2.54mm)	Digi-Key Electronics	732-5319-ND	\$0.19	\$0.19	\$18.70
20	1	Connector	PinHeader 1x04 with Friction Lock	J3	THD - 0.100" (2.54mm)	Digi-Key Electronics	WM4202-ND	\$0.21	\$0.21	\$20.60
21	1	Connector - Jumper	PinHeader 1x02	JP1	THD - 0.100" (2.54mm)	Digi-Key Electronics	952-2262-ND	\$0.08	\$0.08	\$8.20
Total Cost:									\$10.38	\$1,037.78