

Part Name/Description	Unit Quantity	Unit Prototype Cost	Total Prototype Cost	Unit Production Cost	Total Production Cost	Manufacturer	Manufacturer Part #	Vendor Link	Datasheet Link	Supplier	Supplier Part #	# Ordered	Date Ordered	# Received	Surplus	Schematic Reference Designators
8-bit Microcontroller	1	\$2.10	\$2.10	\$1.85	\$1.85	Microchip	PIC18F27Q84-I/SO	digikkey.com/en/products/microchip.co	microchip.co	DigiKey	PIC18F27Q84-I/SO	3	2/28/2025		-1	U1
3.3V Buck Switching Power Regulator	1	\$3.32	\$3.32	\$1.45	\$1.45	Onsemi	LM2575D2T-3.3R4G	digikkey.com/en/products/pdf/datashee	onsemi.com	DigiKey	3.3R4GO	4	2/28/2025		-1	U2
SPI Motor Driver	2	\$1.95	\$3.90	\$1.17	\$2.34	Infineon Technologies	BTM9011EPXUMA1	digikkey.com/en/products/dgdl/Infineon-	nfineon.com	DigiKey	BTM9011EPXUMA	4	2/28/2025		-2	U3, U4
100uF (50V) Capacitor	1	\$0.56	\$0.56	\$0.27	\$0.27	Nichicon	UUD1H101MNL1GS	digikkey.com/en/products/en/panasoni	nichicon.co.jp/english/seri	DigiKey	493-2306-1-ND	2	2/28/2025		-1	C1
330uF (50V) Capacitor	1	\$1.31	\$1.31	\$0.67	\$0.67	Electronic Components	EEE-FT1H331AP	digikkey.com/en/products/c.com/cdbs/	c.com/cdbs/	DigiKey	PCE5026CT-ND	2	2/28/2025		-1	C2
Schottky Diode (40V) 1A SOD-123	1	\$0.00	\$0.00	\$0.10	\$0.10	Diodes Incorporated	1N5819HW-7-F	digikkey.com/en/products/assets/Datas	diodes.com	DigiKey	W-FDICT-ND	3	2/28/2025		-1	D1
LED (Blue) 470nm 3.3V 0805 pack	3	\$0.23	\$0.69	\$0.11	\$0.33	Lite-On Inc.	LTST-C171TBKT	digikkey.com/en/products/electronics.lite	on.com/uplo	DigiKey	160-1645-1-ND	5	2/28/2025		-3	D2, D3, D4
5V 15 WAC/DC External Wall Mount (Class II)	1	\$9.72	\$9.72	\$8.03	\$8.03	Triad Magnetics (Formerly CUI)	WSU050-3000-13	digikkey.com/en/products/cs.com/Asse	cs.com/Asse	DigiKey	237-2256-ND	1	2/28/2025		-1	*Off-board*
Barrel Jack	1	\$0.49	\$0.49	\$0.35	\$0.35	Devices Connector	PJ-002B	digikkey.com/en/products/es.com/prod	ameskydevic	DigiKey	CP-002B-ND	1	2/28/2025		-1	J1
Power Jumper (1x2, 2.54mm) 3A Rated	4	\$0.10	\$0.40	\$0.03	\$0.13	Solutions	QPC02SXGN-RC	digikkey.com/en/products/m/catalogspr	amazonaws.co	DigiKey	S9337-ND	4	2/28/2025		-4	J2, J3, J4, J5
2x4 IDC Header Male	2	\$0.95	\$1.90	\$0.81	\$1.62	Molex	0702460801	digikkey.com/en/products/	digikkey.com/	DigiKey	0702460801-ND	4	2/28/2025		-2	J6, J7
Motor Wire Harness Receptacle (JST HX - A)	1	\$0.21	\$0.21	\$0.15	\$0.15	JST Sales America Inc.	B5B-XH-A	digikkey.com/en/products/st-	mfg.com/pro	DigiKey	B5B-XH-A	2	2/28/2025		-1	J8
330uH Inductor 4A 80mOhm	1	\$2.42	\$2.42	\$2.42	\$2.42	Murata Power Solutions Inc.	60B334C	digikkey.com/en/products/p/Ceramy/lim	h.murata.co.jp	DigiKey	811-2464-ND	1	2/28/2025		-1	L1
5V Stepper Motor	1	\$9.60	\$9.60	\$9.60	\$9.60	MikroElektronika	MIKROE-1530	digikkey.com/en/products/om/documen	oad.mikroe.c	DigiKey	1471-1491-ND	1	2/28/2025		-1	MG1
Tactile switch	1	\$0.18	\$0.18	\$0.14	\$0.14	C&K	PTS636SM43SMTR LFS	digikkey.com/en/products/m/media/277	kswitches.co	DigiKey	CKN12310-1-ND	1	2/28/2025		-1	SW-1
0.1 µF Ceramic Capacitor, +/-10%, X7R, 50V, 0805 pack	6	\$0.00	\$0.00	\$0.07	\$0.42	Multicomp	0805B104K50BD	digikkey.com/en/products/volume0/opas	gikey.com/v	Peralta	0805B104K500BD	12	2/28/2025		-6	C3, C4, C5, C6, C7, C8
Fuse (1000mA 250V 5x20mm cartridge)	3	\$0.00	\$0.00	\$0.73	\$2.19	Littelfuse Inc.	0218001.HXP	digikkey.com/en/products/assetdocs/litt	ttelfuse.com/	Peralta	F2419-ND	3	2/28/2025		-3	F1
500 mA 250 V AC DC Fuse Cartridge, 5mm x 20mm	3	\$0.00	\$0.00	\$0.53	\$1.60	Electronics Division	BK1/GMA-500R	digikkey.com/en/products/eaton.com/c	eaton.com/c	Peralta	283-3263-ND	3	2/28/2025		-3	F2, F3
2x4 IDC Header Female (Ribbon Cable)	2	\$0.00	\$0.00	\$4.53	\$9.06	Molex	0015453508	digikkey.com/en/products/dm_docs/as/	molex.com/p	Peralta	WM25220-ND					