

Part Name	Description	Unit Quantity	Unit Prototype Cost	Total Prototype Cost	Unit Production Cost	Total Production Cost	Manufacturer	Manufacturer Part Number	Vendor Link	Datasheet Link	Supplier	Supplier Part Number	# Ordered	Date Order	# Received	Surplus	Schematic Reference Designators
PIC18F27Q84	Microcontroller	5	\$2.030	\$10.150	\$1.880	\$1.880	Microchip	PIC18F27Q84-E/5N	https://www.digikey.com/product-detail/en/microchip-technology/pic18f27q84-e/118-0107-1	https://ww1.microchip.com/downloads/en/DeviceDoc/00001872A.pdf	Digikey	150-PIC18F27Q84-E/5N-ND	5	2/28/2025			PIC18F27Q84
TI OPT4060	RGB Sensor	5	\$2.880	\$14.400	\$0.880	\$0.880	Texas Instruments	OPT4060DTSR	https://www.digikey.com/product-detail/en/texas-instruments/opt4060dtsr/118-0107-1	https://www.ti.com/document-link/rgb-sensor	Digikey	296-OPT4060DTSRCT-ND	5	2/28/2025			TI OPT4060
L6981C33DR	3.3V Regulator	5	\$2.800	\$14.000	\$1.220	\$1.220	STMicroelectronics	L6981C33DRCT	https://www.digikey.com/product-detail/en/stmicroelectronics/l6981c33drct/118-0107-1	https://www.st.com/en/power-management/l6981.html	Digikey	497-L6981C33DRCT-ND	5	2/28/2025			U1
33uH Inductor	Regulator Inductor	10	\$0.290	\$2.900	\$0.144	\$0.144	TDK Corporation	VLS6045EX-330M	https://www.digikey.com/product-detail/en/tdk-corporation/vls6045ex-330m/118-0107-1	https://product.tdk.com/info/en/products/inductors/inductor.html	Digikey	445-173050-1-ND	10	2/28/2025			L
0.1 uF Capacitor	Decoupling Capacitors	30	\$0.024	\$0.720	\$0.013	\$0.039	Venkel	AGC0603X7R500-104KNP-CT	https://www.digikey.com/product-detail/en/venkel/AGC0603X7R500-104KNP-CT/118-0107-1	https://mm.digikr.com/product-detail/en/venkel/AGC0603X7R500-104KNP-CT/118-0107-1	Digikey	2679-AGC0603X7R500-104KNP-CT-ND	30	2/28/2025			C1,C5,Cboot
1 uF Capacitor	Regulator Vcc Capacitor	10	\$0.079	\$0.790	\$0.043	\$0.043	Venkel	AGC0603X7R250-105KXP-CT	https://www.digikey.com/product-detail/en/venkel/AGC0603X7R250-105KXP-CT/118-0107-1	https://mm.digikr.com/product-detail/en/venkel/AGC0603X7R250-105KXP-CT/118-0107-1	Digikey	2679-AGC0603X7R250-105KXP-CT-ND	10	2/28/2025			Cvcc
10 uF Capacitor	Regulator Vin Capacitor	10	\$0.409	\$4.090	\$0.223	\$0.223	Venkel	AGC1206X6S250-106KXE-CT	https://www.digikey.com/product-detail/en/venkel/AGC1206X6S250-106KXE-CT/118-0107-1	https://mm.digikr.com/product-detail/en/venkel/AGC1206X6S250-106KXE-CT/118-0107-1	Digikey	2679-AGC1206X6S250-106KXE-CT-ND	10	2/28/2025			Cin
22 uF Capacitor	Regulator Vout Capacitor	10	\$0.780	\$7.800	\$0.600	\$0.600	Venkel	C0805X5R350-226MNE-CT	https://www.digikey.com/product-detail/en/venkel/C0805X5R350-226MNE-CT/118-0107-1	https://mm.digikr.com/product-detail/en/venkel/C0805X5R350-226MNE-CT/118-0107-1	Digikey	2679-C0805X5R350-226MNE-CT-ND	10	2/28/2025			Cout
White LED	Illumination LED	20	\$0.120	\$2.400	\$0.060	\$0.060	Cree LED	JB2835BWT-G-U40EA0000-ND	https://www.digikey.com/product-detail/en/cree-led/jb2835bwt-g-u40ea0000-nd/118-0107-1	https://download.creeled.com/leds/white/2835/2835BWT-G-U40EA0000-ND000P.pdf	Digikey	2138-JB2835BWT-G-U40EA0000-ND000P	20	2/28/2025			D2
Green LED	Debugging LED	20	\$0.125	\$2.500	\$0.040	\$0.040	Lite-On Inc.	LTST-C150KGKT	https://www.digikey.com/product-detail/en/lite-on-inc./LTST-C150KGKT/118-0107-1	https://optoelect.liteon.com/en/optoelect	Digikey	160-1404-1-ND	20	2/28/2025			D3
Red LED	Debugging LED	20	\$0.125	\$2.500	\$0.125	\$0.125	Lite-On Inc.	LTST-C150KRKT	https://www.digikey.com/product-detail/en/lite-on-inc./LTST-C150KRKT/118-0107-1	https://optoelect.liteon.com/en/optoelect	Digikey	160-1405-1-ND	20	2/28/2025			D4
1.5 A Fuse	Regulator Fuse	5	\$0.158	\$0.790	\$0.056	\$0.056	Bel Fuse Inc.	02CG0075FF2C	https://www.digikey.com/product-detail/en/bel-fuse-inc./02CG0075FF2C/118-0107-1	https://www.belfuse.com/en/02CG0075FF2C	Digikey	5923-02CG0075FF2CCT-ND	5	2/28/2025			F1
250mA Fuse	Microcontroller Fuse	5	\$0.192	\$0.960	\$0.069	\$0.069	Bel Fuse Inc.	02CM0010FF2G	https://www.digikey.com/product-detail/en/bel-fuse-inc./02CM0010FF2G/118-0107-1	https://www.belfuse.com/en/02CM0010FF2G	Digikey	5923-02CM0010FF2GCT-ND	5	2/28/2025			F2
10 kOhm Resistor	10 kOhm Resistor	100	\$0.012	\$1.200	\$0.002	\$0.012	Stackpole Electronics Inc	RMCF0805FT10K0	https://www.digikey.com/product-detail/en/stackpole-electronics-inc./RMCF0805FT10K0/118-0107-1	https://www.seie.com/en/RMCF0805FT10K0CT-ND	Digikey	RMCF0805FT10K0CT-ND	100	2/28/2025			R1,R2,R7,R8,R9,R10
62 Ohm Resistor	Debug LED Resistors	10	\$0.025	\$0.250	\$0.002	\$0.004	Stackpole Electronics Inc	RMCF0805FT62R0	https://www.digikey.com/product-detail/en/stackpole-electronics-inc./RMCF0805FT62R0/118-0107-1	https://www.seie.com/en/RMCF0805FT62R0CT-ND	Digikey	RMCF0805FT62R0CT-ND	10	2/28/2025			R5,R6
15 Ohm Resistor	Illumination LED Resistor	10	\$0.025	\$0.250	\$0.002	\$0.002	Stackpole Electronics Inc	RMCF0805FT15R0	https://www.digikey.com/product-detail/en/stackpole-electronics-inc./RMCF0805FT15R0/118-0107-1	https://www.seie.com/en/RMCF0805FT15R0CT-ND	Digikey	RMCF0805FT15R0CT-ND	10	2/28/2025			R4
FDV303N	Switch Transistor	10	\$0.207	\$2.070	\$0.046	\$0.139	Onsemi	FDV303N	https://www.digikey.com/product-detail/en/onsemi/fdv303n/118-0107-1	https://www.onsemi.com/pdf/datasheet/fdv303n-d.pdf	Digikey	FDV303NCT-ND	10	2/28/2025			U2,U3,U4
Barrel Jack	Wall Adapter Barrel Jack	3	\$0.950	\$2.850	\$0.446	\$0.446	Same Sky	PJ-006A-SMT-TR	https://www.digikey.com/product-detail/en/same-sky/pj-006a-smt-tr/118-0107-1	https://www.same-sky.com/en/PJ-006A-SMT-TR	Digikey	CP-006APJCT-ND	3	2/28/2025			J1
2x4 Male Header	UART Headers	3	\$0.970	\$2.910	\$0.513	\$1.026	Würth Elektronik	61200821621	https://www.digikey.com/product-detail/en/wurth-electronic/61200821621/118-0107-1	https://www.we-online.com/catalog/viewitem.aspx?lang=en&partno=61200821621	Digikey	732-5395-ND	3	2/28/2025			J2,J3
2 x20 Male Header Pins	General Jumper Pins	2	\$1.810	\$3.620	\$0.886	\$0.886	Würth Elektronik	61304021121	https://www.digikey.com/product-detail/en/wurth-electronic/61304021121/118-0107-1	https://www.we-online.com/catalog/viewitem.aspx?lang=en&partno=61304021121	Digikey	732-5310-ND		2/28/2025			J5,J6,J7,J8,J9,J11,J12
Jumper	General Purpose Jumpers	50	\$0.034	\$1.700	\$0.025	\$0.250	Sullins Connector Solution	QPC02SXGN-RC	https://www.digikey.com/product-detail/en/sullins-connector-solutions/qpc02sxgn-rc/118-0107-1	https://s3.amazonaws.com/sullins-connector-solutions/qpc02sxgn-rc.pdf	Digikey	S9337-ND	50	2/28/2025			J5,J6,J7,J8,J9,J11,J13
Test Points	Test points	25	\$0.262	\$6.550	\$0.143	\$1.001	Keystone Electronics	5006	https://www.digikey.com/product-detail/en/keystone-electronics/5006/118-0107-1	https://www.key-electronics.com/en/5006	Digikey	36-5006-ND	25	2/28/2025			TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8