

Part Name	Description	Unit Quantity	Unit Prototype Cost	Total Prototype Cost	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number	Schematic Reference Designators
PIC18F27Q84	Microcontroller	5	\$2.030	\$10.150	Microchip	PIC18F27Q84-E/5N	Digikey	150-PIC18F27Q84-E/5N-ND	PIC18F27Q84
TI OPT4060	RGB Sensor	5	\$2.880	\$14.400	Texas Instruments	OPT4060DTSR	Digikey	296-OPT4060DTSRCT-ND	TI OPT4060
L6981C33DR	3.3V Regulator	5	\$2.800	\$14.000	STMicroelectronics	L6981C33DR	Digikey	497-L6981C33DRCT-ND	U1
33uH Inductor	Regulator Inductor	10	\$0.290	\$2.900	TDK Corporation	VLS6045EX-330M	Digikey	445-173050-1-ND	L
0.1 uF Capacitor	Decoupling Capacitors	30	\$0.024	\$0.720	Venkel	AGC0603X7R500-104KN	Digikey	2679-AGC0603X7R500-104KNP-CT-ND	C1,C5,Cboot
1 uF Capacitor	Regulator Vcc Capacitor	10	\$0.079	\$0.790	Venkel	AGC0603X7R250-105KXI	Digikey	2679-AGC0603X7R250-105KXP-CT-ND	Cvcc
10 uF Capacitor	Regulator Vin Capacitor	10	\$0.409	\$4.090	Venkel	AGC1206X6S250-106KXI	Digikey	2679-AGC1206X6S250-106KXE-CT-ND	Cin
22 uF Capacitor	Regulator Vout Capacitor	10	\$0.780	\$7.800	Venkel	C0805X5R350-226MNE-I	Digikey	2679-C0805X5R350-226MNE-CT-ND	Cout
White LED	Illumination LED	20	\$0.120	\$2.400	Cree LED	JB2835BWT-G-U40EA000	Digikey	2138-JB2835BWT-G-U40EA0000-N000P001CT-ND	D2
Green LED	Debugging LED	20	\$0.125	\$2.500	Lite-On Inc.	LTST-C150KGKT	Digikey	160-1404-1-ND	D3
Red LED	Debugging LED	20	\$0.125	\$2.500	Lite-On Inc.	LTST-C150KRKT	Digikey	160-1405-1-ND	D4
1.5 A Fuse	Regulator Fuse	5	\$0.158	\$0.790	Bel Fuse Inc.	OZCG0075FF2C	Digikey	5923-OZCG0075FF2CCT-ND	F1
250mA Fuse	Microcontroller Fuse	5	\$0.192	\$0.960	Bel Fuse Inc.	OZCM0010FF2G	Digikey	5923-OZCM0010FF2GCT-ND	F2
10 kOhm Resistor	10 kOhm Resistor	100	\$0.012	\$1.200	Stackpole Electronics Inc	RMCF0805FT10K0	Digikey	RMCF0805FT10K0CT-ND	R1,R2,R7,R8,R9,R10
62 Ohm Resistor	Debug LED Resistors	10	\$0.025	\$0.250	Stackpole Electronics Inc	RMCF0805FT62R0	Digikey	RMCF0805FT62R0CT-ND	R5,R6
15 Ohm Resistor	Illumination LED Resistor	10	\$0.025	\$0.250	Stackpole Electronics Inc	RMCF0805FT15R0	Digikey	RMCF0805FT15R0CT-ND	R4
FDV303N	Switch Transistor	10	\$0.207	\$2.070	Onsemi	FDV303N	Digikey	FDV303NCT-ND	U2,U3,U4
Barrel Jack	Wall Adapter Barrel Jack	3	\$0.950	\$2.850	Same Sky	PJ-006A-SMT-TR	Digikey	CP-006APJCT-ND	J1
2x4 Male Header	UART Headers	3	\$0.970	\$2.910	Würth Elektronik	61200821621	Digikey	732-5395-ND	J2,J3
2 x20 Male Header Pins	General Jumper Pins	2	\$1.810	\$3.620	Würth Elektronik	61304021121	Digikey	732-5310-ND	J5,J6,J7,J8,J9,J11,J12
Jumper	General Purpose Jumpers	50	\$0.034	\$1.700	Sullins Connector Solutions	QPC02SXGN-RC	Digikey	S9337-ND	J5,J6,J7,J8,J9,J11,J13
Test Points	Test points	25	\$0.262	\$6.550	Keystone Electronics	5006	Digikey	36-5006-ND	TP1,TP2,TP3, TP4,TP5,TP6,TP7,TP8