

Part Name	Description	Unit Quantity	Unit Prototype Cost	Total Prototype Cost	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number	# Ordered	Schematic Reference Designators
PIC18F27Q84	Microcontroller	5	\$2.030	\$10.150	Microchip	PIC18F27Q84-E/5N	Digikey	150-PIC18F27Q84-E/5N-ND	5	PIC18F27Q84
TI OPT4060	RGB Sensor	4	\$2.880	\$11.520	Texas Instruments	OPT4060DTSR	Digikey	296-OPT4060DTSRCT-ND	5	TI OPT4060
L6981C33DR	3.3V Regulator	3	\$2.800	\$8.400	STMicroelectronics	L6981C33DR	Digikey	497-L6981C33DRCT-ND	5	U1
33uH Inductor	Regulator Inductor	5	\$0.350	\$1.750	TDK Corporation	VLS6045EX-330M	Digikey	445-173050-1-ND	10	L
0.1 uF Capacitor	Decoupling Capacitors	20	\$0.006	\$0.120	Samsung Electro-Mechanics	CL05B104KP5NNNC	Digikey	1276-1002-1-ND	20	C1,C5,Cboot
1 uF Capacitor	Regulator Vcc Capacitor	10	\$0.008	\$0.080	Samsung Electro-Mechanics	CL10B105KP8NNNC	Digikey	1276-1946-1-ND	10	Cvcc
10 uF Capacitor	Regulator Vin Capacitor	10	\$0.050	\$0.500	Samsung Electro-Mechanics	CL10A106MP8NNNC	Digikey	1276-1871-1-ND	10	Cin
22 uF Capacitor	Regulator Vout Capacitor	10	\$0.059	\$0.590	Samsung Electro-Mechanics	CL10A226MP8NUNE	Digikey	1276-1274-1-ND	10	Cout
White LED	Illumination LED	20	\$0.120	\$2.400	Cree LED	JB2835BWT-G-U40EA0000-N000P001	Digikey	2138-JB2835BWT-G-U40EA0000-N000P001CT-ND	20	D2
Green LED	Debugging LED	20	\$0.125	\$2.500	Lite-On Inc.	LTST-C150KGKT	Digikey	160-1404-1-ND	20	D3
Red LED	Debugging LED	20	\$0.125	\$2.500	Lite-On Inc.	LTST-C150KRKT	Digikey	160-1405-1-ND	20	D4
1.5 A Fuse	Regulator Fuse	5	\$0.158	\$0.790	Bel Fuse Inc.	OZCG0075FF2C	Digikey	5923-OZCG0075FF2CCT-ND	5	F1
250mA Fuse	Microcontroller Fuse	5	\$0.192	\$0.960	Bel Fuse Inc.	OZCM0010FF2G	Digikey	5923-OZCM0010FF2GCT-ND	5	F2
10 kOhm Resistor	10 kOhm Resistor	50	\$0.025	\$1.250	Stackpole Electronics Inc	RMCF0805FT10K0	Digikey	RMCF0805FT10K0CT-ND	50	R1,R2,R7,R8,R9,R10
62 Ohm Resistor	Debug LED Resistors	10	\$0.025	\$0.250	Stackpole Electronics Inc	RMCF0805FT62R0	Digikey	RMCF0805FT62R0CT-ND	10	R5,R6
15 Ohm Resistor	Illumination LED Resistor	10	\$0.025	\$0.250	Stackpole Electronics Inc	RMCF0805FT15R0	Digikey	RMCF0805FT15R0CT-ND	10	R4
FDV303N	Switch Transistor	10	\$0.207	\$2.070	Onsemi	FDV303N	Digikey	FDV303NCT-ND	10	U2,U3,U4
Barrel Jack	Wall Adapter Barrel Jack	2	\$0.950	\$1.900	Same Sky	PJ-006A-SMT-TR	Digikey	CP-006APICT-ND	3	J1
2x4 Male Header	UART Headers	3	\$0.970	\$2.910	Würth Elektronik	61200821621	Digikey	732-5395-ND	3	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	50	J5,J6,J7,J8,J9,J11,J13
Test Points	Test points	10	\$0.262	\$2.620	Keystone Electronics	5006	Digikey	36-5006-ND	25	TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8