

Part Name	Description	Unit	Quantity	Unit Prototype Cost	Total Prototype Co	Unit Production Cost	Total Production Cost	Manufacturer	Manufacturer Part Number	Vendor Link	Datasheet Link	Supplier	Supplier Part Number	#	Ordered	Date Order	# Receive	Surplus	Schematic Reference Designators
P1C18FZ7Q84	Microcontroller	1	\$2.000	\$2.000	\$1.660	\$1.660	\$1.660	Microchip	PIC18FZ7Q84-I/50	https://www.dig	https://www1.mc	Digkey	150-PIC18FZ7Q84-I/50-ND	5	*****				PIC18FZ7Q84
T1 OPT4048	RGB Sensor	1	\$1.810	\$1.810	\$1.158	\$1.158	\$1.158	Texas Instruments	OPT4060DTSR	https://www.dig	https://www.ti.c	Digkey	296-OPT4048DTSR-ND	5	*****				T1 OPT4060
L6981C33DR	3.3V Regulator	1	\$2.800	\$2.800	\$1.220	\$1.220	\$1.220	STMicroelectronics	LP891C33DR	https://www.st.c	https://www.s.t.c	Digkey	497-L6981C33DR-ND	5	*****				U1
33uH Inductor	Regulator Inductor	1	\$0.350	\$0.350	\$0.144	\$0.144	\$0.144	TDK Corporation	VL6045EX-330M	https://www.dig	https://product1	Digkey	445-173050-1-ND	10	*****				L
0.1 uF Capacitor	Decoupling Capacitors	4	\$0.006	\$0.024	\$0.003	\$0.012	\$0.012	Samsung Electro-Mechanics	CL05B104KP5NNNC	https://www.dig	https://mm.digkey	Digkey	1276-1002-1-ND	20	*****				C1,C5,Cboot
1 uF Capacitor	Regulator Vcc Capacitor	1	\$0.008	\$0.008	\$0.004	\$0.004	\$0.004	Samsung Electro-Mechanics	CL10B105KP8NNNC	https://www.dig	https://mm.digkey	Digkey	1276-1946-1-ND	10	*****				Cvcc
10 uF Capacitor	Regulator Vin Capacitor	1	\$0.050	\$0.050	\$0.014	\$0.014	\$0.014	Samsung Electro-Mechanics	CL10A106MP8NNC	https://www.dig	https://webli3.s	Digkey	1276-1871-1-ND	10	*****				Cin
22 uF Capacitor	Regulator Vout Capacitor	1	\$0.059	\$0.059	\$0.017	\$0.017	\$0.017	Samsung Electro-Mechanics	CL10A226MP8NNC	https://www.dig	https://mm.digkey	Digkey	1276-1274-1-ND	10	*****				Cout
White LED	Illumination LED	1	\$0.200	\$0.200	\$0.060	\$0.060	\$0.060	Samsung Semiconductor, Inc.	SPMWH7541MPSWAR055	https://www.dig	https://download	Digkey	1510-1519-1-ND	10	*****				D2
Green LED	Debugging LED	1	\$0.125	\$0.125	\$0.069	\$0.069	\$0.069	Life-On Inc.	LTS1-C150KGR	https://www.dig	https://optoelec	Digkey	160-1404-1-ND	20	*****				D3
Red LED	Debugging LED	1	\$0.125	\$0.125	\$0.125	\$0.125	\$0.125	Life-On Inc.	LTS1-C150KRT	https://www.dig	https://optoelec	Digkey	160-1405-1-ND	20	*****				D4
1.5 A Fuse	Regulator Fuse	1	\$0.158	\$0.158	\$0.056	\$0.056	\$0.056	Bel Fuse Inc.	02C00075F2C	https://www.dig	https://www.bel	Digkey	5922-C00075F2CCT-ND	5	*****				F1
160kNua Fuse	Microcontroller Fuse	1	\$0.192	\$0.192	\$0.069	\$0.069	\$0.069	Bel Fuse Inc.	02CM0010F2C	https://www.dig	https://www.bel	Digkey	5922-02CM0010F2CCT-ND	5	*****				F2
10kOhm Resistor	10kOhm Resistor	1	\$0.025	\$0.025	\$0.002	\$0.002	\$0.002	Stackpole Electronics Inc	RMCF0805F10K0	https://www.dig	https://www.sei	Digkey	RMCF0805F10K0CT-ND	50	*****				R1,R2,R7,R8,R9,R10
62 Ohm Resistor	Debug LED Resistors	1	\$0.025	\$0.025	\$0.002	\$0.002	\$0.002	Stackpole Electronics Inc	RMCF0805F62R0	https://www.dig	https://www.sei	Digkey	RMCF0805F62R0CT-ND	10	*****				R5,R6
5.1 Ohm Resistor	Illumination LED Resistor	1	\$0.030	\$0.030	\$0.007	\$0.007	\$0.007	Stackpole Electronics Inc	RMCF0805F5R10	https://www.dig	https://www.sei	Digkey	RMCF0805F5R10CT-ND	10	*****				R4
FDV303N	Switch Transistor	3	\$0.207	\$0.621	\$0.046	\$0.139	\$0.139	Onsemi	FDV303N	https://www.dig	https://www.ons	Digkey	FDV303NCT-ND	10	*****				U2,U3,U4
Barrel Jack	Wall Adapter Barrel Jack	1	\$0.890	\$0.890	\$0.675	\$0.675	\$0.675	Tensility International Corp	54-00165	https://www.dig	https://tensility.i	Digkey	839-54-00165CT-ND	3	*****				J1
Test Points	Test points	8	\$0.262	\$2.096	\$0.143	\$1.144	\$1.144	Keystone Electronics	5006	https://www.dig	https://www.kev	Digkey	36-5006-ND	25	*****				J2,J3
Pushbutton	Debugging pushbutton	1	\$0.127	\$0.127	\$0.089	\$0.089	\$0.089	C&K	PTSS26SK15SMTR2 LFS	https://www.dig	https://www.cks	Digkey	CKN12221-1-ND	10	*****				TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8