List of of Components	Reference Designators	Quantity	Manufacturer	DigiKey Part No	Manufacturer Part No	Final Quantity	Cost/unit	Price/Components	
IC COLOR SENSOR DGTL 8WSON	U6,U7,U8		3 Rohm Semiconductor	BH1745NUC-E2CT-ND	BH1745NUC-E2	3	1.3992	41.976	
MOSFET P-CH 20V 1.8A SOT-23	Q4,Q5		2 ON Semiconductor	NTR4101PT1GOSCT-ND	NTR4101PT1G	2	0.428	8.56	
IC MCU 16BIT 32KB FLASH 28SOIC	U4		1 Microchip Technology	PIC24FJ32GA002-I/SO-ND	PIC24FJ64GA002-I/SO	1	2.56	25.6	
IC REG LINEAR 3.3V 200MA SMV	U3		1 Toshiba Semiconductor and Storage	TCR2EF33LM(CTCT-ND	TCR2EF33.LM(CT	1	0.278	2.78	
IC I2C SMBUS SWITCH 4CH 16-TSSOP	U5		1 Texas Instruments	296-20968-1-ND	PCA9546APWR	1	1.752	17.52	
RES 10K OHM 1% 1/8W 0603	R8,R10,R14, R6		4 Stackpole Electronics Inc	RNCP0603FTD10K0CT-ND	RNCP0603FTD10K0	4	0.1	4	
RES SMD 1K OHM 5% 1/4W 0603	R16,R17,R18,R19,R20, R21, R22, R23, R24, R27, R28		11 Rohm Semiconductor	RHM1.00KADCT-ND	ESR03EZPF1001	11	0.0462	5.082	
RES SMD 47K OHM 1% 1/10W 0603	R25,R26		2 Yageo	311-47.0KHRCT-ND	RC0603FR-0747KL	2	0.024	0.48	
CAP CER 47PF 50V C0G/NP0 0603	C14, C15		2 KEMET	399-7918-1-ND	C0603C470K5GACTU	2	0.085	1.7	
DIODE SCHOTTKY 20V 1A SOD123L	D3,D4		2 ON Semiconductor	MBR120ESFT1GOSCT-ND	MBR120ESFT1G	2	0.303	6.06	
CAP CER 10UF 6.3V X5R 0603	C9,C10, C16		2 Murata Electronics North America	490-12538-1-ND	GRM188R60J106KE47D	2	0.118	2.36	
CAP CER X8L 16V 1.0UF 10% 0.80MM	C7		1 TDK Corporation	445-175260-1-ND	CGA3E1X8L1C105K080AC	1	0.291	2.91	
CAP CER 0.1UF 50V X7R 0603	C6,C17, C11, C12, C13		5 Samsung Electro-Mechanics	1276-1000-1-ND	CL10B104KB8NNNC	5	0.028	1	
CAP CER 22UF 6.3V X5R 0603	C8		1 Murata Electronics North America	490-7611-1-ND	GRM188R60J226MEA0D	1	0.177		
RES SMD 470 OHM 1% 1/10W 0603	R2		1 Yageo	311-470HRCT-ND	RC0603FR-07470RL	1	0.024	0.24	
RES SMD 2K OHM 0.1% 1/10W 0603	R1		1 Panasonic Electronic Components	P2.0KDBCT-ND	ERA-3AEB202V	1	0.3	3	
CAP CER 4.7UF 6.3V X5R 0603	C3,C5		2 Samsung Electro-Mechanics	1276-1907-1-ND	CL10A475MQ8NNNC	2	0.063	1.26	
IC CONTROLLR LI-ION 4.2V SOT23-5	U1		1 Microchip Technology	MCP73831T-2ACI/OTCT-ND	MCP73831T-2ACI/OT	1	0.58	5.8	
LED ORANGE CLEAR SMD	D1		1 Lite-On Inc.	160-1413-1-ND	LTST-C170KFKT	1	0.225		
RES SMD 100 OHM 5% 1/4W 0603	R3		1 Rohm Semiconductor	RHM100DCT-ND	ESR03EZPJ101	1	0.083	0.83	
CONN HEADER VERT 2POS 2.54MM	D2		1 Harwin Inc.	952-2262-ND	M20-9990246	1	0.000		
Estimated Battery Life: 4 hrs							Total Price	133.398	