



**Parallax Laser Range Finder #28044**  
**Bill-of-Materials**  
**HW A, Document 1.1, August 23, 2011**

Item	Quantity	Reference	Manufacturer	Manuf. Part #	Distributor	Distrib. Part #	Description
1	13	C1, C2, C5, C6, C7, C8, C9, C10, C11, C13, C14, C20, C21	Kemet	C0603C104K4RACTU	Digi-Key	399-1096-2-ND	0.1uF bypass capacitor, 16V, X7R, 0603
2	2	C3, C17	Kemet	C0805C105K8RACTU	Digi-Key	399-1172-1-ND	1uF ceramic capacitor, X7R, 10V, 0805
3	6	C4, C12, C15, C16, C18, C19	Kemet	T491A106M016AS	Digi-Key	399-3687-1-ND	10uF capacitor, 20%, 16V, tantalum, size A
4	1	D1	Arima Lasers	APCD-635-02-C3-A	Ayase America	N/A	Laser Diode Module w/ APC, 635nm, < 3mW, 6.2mm D
5	1	D2	Kingbright	APB3025ESGC-F01	Mouser	604-APB3025ESGC-F01	Red/Green Bi-Color LED, 1201W SMT
6	1	JP1	Molex	22-28-8040	Digi-Key	WM6004-ND	Single row, right-angle vertical header, 4-pin, 0.1" P
7	1	L1	TDK	MLZ2012M100W	Digi-Key	445-6396-1-ND	Inductor, Power, 10uH, 470mR, 150mA, 0805
8	2	L2, L3	TDK	MLZ2012A3R3W	Digi-Key	445-6394-1-ND	Inductor, Power, 3.3uH, 340mR, 200mA, 0805
9	6	R1, R2, R5, R6, R9, R10	Any	Any	Digi-Key	P4.7KGCT-ND	4.7k, 5%, 1/10W, 0603
10	2	R3, R4	Any	Any	Digi-Key	P10KGCT-ND	10k, 5%, 1/10W, 0603
11	1	R7	Any	Any	Digi-Key	P270GCT-ND	270 ohm, 5%, 1/10W, 0603
12	1	R8	Any	Any	Digi-Key	P470GCT-ND	470 ohm, 5%, 1/10W, 0603
13	1	R11	Any	Any	Digi-Key	P200KGCT-ND	200k, 5%, 1/10W, 0603
14	1	U1	Omnivision	OVM7690-R20A	NuHorizons	N/A	CMOS VGA (640x480) CameraCube, 1/13" color
15	1	U2	Parallax	P8X32A-Q44	N/A	N/A	Microcontroller, Propeller, TQFP-44
16	1	U3	Microchip	24LC512-I/SN	Digi-Key	24LC512-I/SN-ND	Memory, Serial EEPROM, 64KB, SOIC-8
17	1	U4	ST Microelectronics	LD1117S33	Digi-Key	497-1241-1-ND	Linear Regulator, LDO, 3.3V, 800mA, SOT223
18	1	U5	Micrel	MIC5213-2.8YC5	Digi-Key	576-2751-1-ND	Linear Regulator, LDO, 2.8V, 80mA, SC70-5
19	1	U6	Micrel	MIC5213-3.0YC5	Digi-Key	576-2752-1-ND	Linear Regulator, LDO, 3.0V, 80mA, SC70-5
20	1	U7	Texas Instruments	PCA9306DCTR	Digi-Key	296-18509-2-ND	Voltage-Level Translator, SM8
21	1	Y1	Abracon	ABLS-6.000MHZ-B4-T	Digi-Key	535-10208-2-ND	Crystal, 6MHz, 18pF, HC49/US SMD
22	1	PCB	Sonic Manufacturing	LRF A	N/A	N/A	PCB, Fabrication, Assembly & Test