


## Luminardo Rev.2.1

### Bill Of Materials

Picture	Position	Supplier/Part Number	Value	Unit price, USD	Qty	Extended price, USD
	R1, R2, R3, R8, R15, R17	DIGIKEY/ RMCF1206JT10K0CT-ND	10K OHM 5% 1/4W 1206	0.1	6	0.6
	R4, R5	DIGIKEY/ RMCF1206JT33R0	33 OHM 5% 1/4W 1206	0.1	2	0.2
	R6	DIGIKEY/ RMCF1206JT4K70CT-ND	4.7K OHM 5% 1/4W 1206	0.1	1	0.1
	R7, R9	DIGIKEY/ RNCP1206FTD1K50CT-ND	1.5K OHM 1% 1/2W 1206	0.1	2	0.2
	R10, R11, R12, R13	DIGIKEY/ RMCF1206JT1K00CT-ND	1K OHM 5% 1/4W 1206	0.1	4	0.4
	R14	DIGIKEY/ RMCF1206JT100KCT-ND	100K OHM 5% 1/4W 1206	0.1	1	0.1
	R16	DIGIKEY/ RMCF1206JT33K0CT-ND	33K OHM 5% 1/4W 1206	0.1	1	0.1




Picture	Position	Supplier/Part Number	Value	Unit price, USD	Qty	Extended price, USD
	C1, C2, C4, C6, C11, C12, C13, C14, C15, C21	DIGIKEY/ 1276-2854-1-ND	0.10 $\mu$ F $\pm$ 20% 50V Ceramic Capacitor Y5V (F) 1206 (3216 Metric)	0.1	11	1.1
	C3, C5, C8, C9	DIGIKEY/ 1276-1844-1-ND	18pF $\pm$ 5% 50V Ceramic Capacitor C0G, NP0 1206 (3216 Metric)	0.14	4	0.56
	C7, C19	DIGIKEY/ 399-3696-1-ND	4.7 $\mu$ F $\pm$ 10% Molded Tantalum Capacitors 10V 1206 (3216 Metric) 5 Ohm	0.34	2	0.68
	C10	DIGIKEY/ 399-8269-1-ND	10 $\mu$ F $\pm$ 10% Molded Tantalum Capacitors 16V 1206 (3216 Metric) 7 Ohm	0.41	1	0.41
	C17	DIGIKEY/ 399-1234-1-ND	10000pF $\pm$ 10% 50V Ceramic Capacitor X7R 1206 (3216 Metric)	0.16	1	0.16
	C18	DIGIKEY/ P16502CT-ND	56 $\mu$ F $\pm$ 20% 20V Aluminum Polymer Capacitor Radial, Can - SMD 30 mOhm 5000 Hrs @ 105°C	1.28	1	1.28
	C20	DIGIKEY/ 587-1434-1-ND	1 $\mu$ F $\pm$ 10% 25V Ceramic Capacitor X5R 1206 (3216 Metric)	0.48	1	0.48

Picture	Position	Supplier/Part Number	Value	Unit price, USD	Qty	Extended price, USD
	C22	DIGIKEY/ 1276-3044-1-ND	10 $\mu$ F $\pm$ 20% 10V Ceramic Capacitor X5R 1206 (3216 Metric)	0.21	1	0.21
	B1	DIGIKEY/ BS-3-ND	HOLDER COINCELL 2032 RETAINR ARM	0.85	1	0.85
	D1, D2	DIGIKEY/ 568-6504-1-ND	Diode Schottky 20V 1A Surface Mount SOD-123	0.43	2	0.86
	F1	DIGIKEY/ 507-1800-1-ND	PTC Resettable Fuse 16V 350mA Ih Surface Mount 1206 (3216 Metric), Concave	0.12	1	0.12
	J1	DIGIKEY/ CP-012A-ND	Power Barrel Connector Jack 2.00mm ID (0.079"), 5.50mm OD (0.217") Through Hole, Right Angle	1.4	1	1.4
	L1	DIGIKEY/ 490-13129-1-ND	22 $\mu$ H Shielded Wirewound Inductor 1.7A 93.6 mOhm Max Nonstandard	1.2	1	1.2
	P1	DIGIKEY/ 1175-1265-ND	USB - A USB 2.0 Receptacle Connector 4 Position Through Hole, Vertical	0.84	1	0.84

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	P2, P4	DIGIKEY/ 732-5317-ND	4 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold	0.17	2	0.34
	P3	DIGIKEY/ 732-5316-ND	3 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold	0.12	1	0.12
	P10	DIGIKEY/ 255-3074-ND	Sensor Motion, Pyroelectric, PIR (Passive Infrared) 197" (5m) 16.4' Polyethylene, White Lens	12.57	1	12.57
	P5	DIGIKEY/ 732-2735-ND	USB - mini B Receptacle Connector 5 Position Through Hole, Vertical	2.25	1	2.25
	P6, P9	DIGIKEY/ 609-3234-ND	6 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold or Gold, GXT™	0.31	2	0.62
	P7	DIGIKEY/ 609-3371-ND	8 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold or Gold, GXT™	0.39	1	0.39
	P8	DIGIKEY/ 1528-1074-ND	Arduino Boards or other MCU Boards - Connector	1.95	1	1.95

Picture	Position	Supplier/Part Number	Value	Unit price, USD	Qty	Extended price, USD
	P11	DIGIKEY/ 732-5315-ND	2 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold	0.12	1	0.12
	Q1	DIGIKEY/ DMG2307L-7DICT-ND	MOSFET P-CH 30V 2.5A SOT-23	0.38	1	0.38
	LD1, LD2	DIGIKEY/ 160-1737-1-ND	White LED Indication - Discrete 3.2V 1206 (3216 Metric)	0.51	2	1.02
	SW1	DIGIKEY/ EG4389CT-ND	Tactile Switch SPST-NO Side Actuated Surface Mount, Right Angle	0.47	1	0.47
	U1	DIGIKEY/ DS18B20+T&RCT-ND	Temperature Sensor Digital, Local -55°C ~ 125°C 11 b TO-92-3	4.54	1	4.54
	U2	DIGIKEY/ MAX3421EEHJ+-ND	USB Controller USB 2.0 SPI Interface 32-TQFP (5x5)	8.55	1	8.55
	U3	DIGIKEY/ ATMEGA1284P-AURCT-ND	AVR AVR® ATmega Microcontroller IC 8-Bit 20MHz 128KB (64K x 16) FLASH 44-TQFP (10x10)	8.84	1	8.84

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	U4	DIGIKEY/ NCP380HSN05AAT1GOSCT-ND	IC CURRENT LIMIT SWITCH 5-TSOP	0.7	1	0.7
	U5	DIGIKEY/ 296-4530-1-ND	Buffer, Non-Inverting 4 Element 1 Bit per Element Push-Pull Output 14-SOIC	0.44	1	0.44
	U6	DIGIKEY/ 768-1007-1-ND	USB Bridge, USB to UART USB 2.0 UART Interface 28- SSOP	4.5	1	4.5
	U7	DIGIKEY/ DS1338Z-33+-ND	Real Time Clock (RTC) IC Clock/Calendar 56B I <sup>2</sup> C, 2-Wire Serial 8-SOIC (0.154", 3.90mm Width)	3.37	1	3.37
	U8	DIGIKEY/ LM22675MR-5.0/NOPB-ND	Buck Switching Regulator IC Positive Fixed 5V 1 Output 1A 8-PowerSOIC (0.154", 3.90mm Width)	4.44	1	4.44
	U9	DIGIKEY/ 497-1241-1-ND	Linear Voltage Regulator IC Positive Fixed 1 Output 3.3V 800mA SOT-223	0.46	1	0.46
	Y1	DIGIKEY/ 535-9833-1-ND	10MHz ±20ppm Crystal 18pF 60 Ohm -40°C ~ 85°C Surface Mount 2-SMD, No Lead (DFN, LCC)	1	1	1

Picture	Position	Supplier/Part Number	Value	Unit price, USD	Qty	Extended price, USD
	Y2	DIGIKEY/ 535-9836-1-ND	12MHz ±20ppm Crystal 18pF 60 Ohm -40°C ~ 85°C Surface Mount 2-SMD, No Lead (DFN, LCC)	0.72	1	0.72
	Y3	DIGIKEY/ 300-8816-1-ND	32.768kHz ±10ppm Crystal 12.5pF 70 kOhm -40°C ~ 85°C Surface Mount 2-SMD, No Lead (DFN, LCC)	0.8	1	0.8
	ZD1	DIGIKEY/ 1N5819HW-FDICT-ND	Diode Schottky 40V 1A Surface Mount SOD-123	0.44	1	0.44
					<b>Total</b>	<b>70.88</b>