

Hardhat Bom

Manufacturer	Part	Description	Ref Desgs	Qty	Use	Budgetary Cost	Budgetary Cost Ext	Bought From
PCB + Mechanical								
PCB				1		3.6	3.6	
Standoff	91780A127	Aluminum Female Threaded Hex Standoff 1/4" Hex, 1/2" Length, 6-32 Screw Size		4		0.27	1.08	
Standoff	93505A443	Aluminum Male-Female Threaded Hex Standoff 1/4" Hex, 5/8" Length, 6-32 Screw Size		4		0.46	1.84	
Screws	90272A144	Zinc-Pltd Stl Pan Head Phillips Machine Screw 6-32 Thread, 1/4" Length, packs of 100		4		0.02	0.08	
							0	
Actives								
ON	2N7002WT1G/BKN	2n7002 Mofet		2	FET	0.05	0.1	Avnet
							0	
TI	OPA2141AID	10MHz, Single Supply, Low Noise, JFET Precision Amplifier		0	4-20mA driver	3.4	0	
Linear Technology	LT1678CS8#PBF	IC OPAMP R-R I/O DUAL LN 8SOIC		0	0-10 out, 4-20 out	4.5	0	
or							0	
STMicro	LM358YDT	IC OP AMP DUAL LP 8-SOIC		3	4-20mA driver, 0-10	0.34	1.02	Avnet
or							0	
Analog Devices	OP282GSZ	IC OPAMP JFET 4MHZ DUAL LP 8SOIC		0		2.14	0	
							0	
TI	REF3333AIDBZR	3.3V 30ppm/C Drift, 3.9uA, SOT23-3, SC70-3 Voltage Reference		1	4-20mA ref	2.3	2.3	
TI	ADS1015IDGST	ADC (A/D Converters) 12B ADC with Int MUX PGA Comp Osc & Ref		1	ADC	2.8	2.8	Mouser
TI	SN65HVD12D	IC TRANSCEIVER RS485 3.3V 8-SOIC		1	RS485 driver	2.1	2.1	Mouser
Microchip	MCP4728-E/UN	IC DAC 12BIT W/I2C 10-MSOP		1	4-20mA and 0-10	2.5	2.5	Avnet
							0	
Fairchild	FDC5614P	MOSFET P-CH 60V 3A SSOT-6		2	4-20mA driver	0.6	1.2	Mouser
NXP	GTL2002DP,118	IC XLATR 2BIT BI-DIREC OD 8TSSOP		1	Logic Level	0.7	0.7	Mouser
TI	SN74AVC4T245PWR	IC BUS TRANSCVR 4BIT 16TSSOP		2	Logic Level	0.9	1.8	Mouser
National Semiconductor	LM25011MY/NOPB	IC BUCK ADJ 2A 10MSOP		1	Power	4.86	4.86	DigiKey
Diodes/Zetex	ZLDO1117-3.3	3.3V LDO		1	Power	0.3	0.3	
Linear Technology	LT3082ETS8#TRMPBF	IC VOLT REG 200MA ADJ SOT23-8		1	4-20mA supply	3.07	3.07	
Toshiba	TLP176GF-ND	PHOTOCOUPLER GAAS IRED/FET 4-SOP		2		1.88	3.76	DigiKey
Diodes/Zetex	B360A-13-F	DIODE SCHOTTKY 60V 3A SMA		2		0.44	0.88	Mouser
Fairchild	FLZ3V3B	DIODE ZENER 3.3V 500MW SOD-80		4		0.11	0.44	Mouser
NXP	BAT754A,215	Schottky (Diodes & Rectifiers) DIODE SCHOTTKY		2		0.18	0.36	Mouser
STMicro	M24C01-WMN6P	EEPROM		1		0.17	0.17	Avnet
							0	
Passives								
Susumu	RG3216P-3000-B-T1	300 ohm .1% 1206 0.25W		2	4-20mA	0.36	0.72	DigiKey
Panasonic	ECJ-4YF1H106Z	CAP 10UF 50V CERAMIC F 1210		1		0.86	0.86	DigiKey
Panasonic	ELL-6PG220M	Power Inductors 22UH SHIELDED COIL CHOKE		1		0.72	0.72	Mouser
MuRata	GRM21BR71C475KA73L	Cap 4.7uF 16VDC X7R 10% SMD 0805 Embossed T/R		2		0.17	0.34	Avnet
TDK	C1608X7R1H103M	Multilayer Ceramic Capacitors (MLCC) - SMD/SMT 0603 50volts 0.01uF X7R 20%		1		0.004	0.004	Mouser
TDK	C3216Y5V1E475Z/0.85	Multilayer Ceramic Capacitors (MLCC) - SMD/SMT 1206 4.7uF 25V Y5V		4		0.06	0.24	Mouser
StackPole	RMCF0603FT9K76	RES 9.76K OHM 1/10W 1% 0603 SMD		1		0.01	0.01	DigiKey
StackPole	RMCF0603FT10K0	RES 10K OHM 1/10W 1% 0603 SMD		10		0.005	0.05	DigiKey
Yageo	311-1.91MCRCT-ND	RES 1.91M OHM 1/8W 1% 0805 SMD		1		0.01	0.01	DigiKey
Panasonic	ERJ-3EKF5492V	RES 54.9K OHM 1/10W 1% 0603 SMD		2		0.04	0.08	DigiKey
Panasonic	ERJ-3EKF6651V	RES 6.65K OHM 1/10W 1% 0603 SMD		2		0.04	0.08	DigiKey
	RMCF0603JT200KCT-ND	RES 200K OHM 1/10W 5% 0603 SMD		1		0.007	0.007	DigiKey
StackPole	RT0603DRD0740K2L	RES 40.2K OHM 1/10W .5% 0603 SMD		2		0.09	0.18	DigiKey
Yageo	MF-NSMF012-2	PTC RESETTABLE .12A 30V 1206		2		0.21	0.42	Mouser
Bourns	RMCF0603JT100K	RES 100K OHM 1/10W 5% 0603 SMD		1		0.01	0.01	DigiKey
StackPole	73L3R20J	RES .20 OHM 1/10W 5% 0805		1		0.12	0.12	DigiKey
CTS	RG1608P-101-B-T5	RES 100 OHM 1/10W .1% 0603 SMD		2		0.25	0.5	DigiKey
Susumu								
Connectors								
Tyco	284512-3	TERM BLOCK HEADER 3POS R/A 3.5MM		2		0.54	1.08	DigiKey
Tyco	284506-3	TERM BLOCK PLUG 3POS 3.5MM		2		1.32	2.64	DigiKey
Tyco	284512-2	TERM BLOCK HEADER 2POS R/A 3.5MM		6		0.39	2.34	DigiKey
Tyco	284506-2	TERM BLOCK PLUG 2POS 3.5MM		6		0.77	4.62	DigiKey
CUI	PJ-002AH	CONN PWR JACK 2.1X5.5MM HIGH CUR		1		0.42	0.42	DigiKey
Sullins	PPPC142LFBN-RC	CONN HEADER FMAL 28PS.1" DL GOLD		1		1.85	1.85	DigiKey
Molex	90131-0134	CONN HEADER 28POS .100" STR TIN		1		2.64	2.64	DigiKey
							0	

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							54.901	