

BoM, for kit building assembly

ref	value	Position X	Position Y	Orientation	Layer	Vendor	Vendor P/N	NOTE 2	QTY
BT1	BATT_RTC	2.6625	1.5350	180	Back	DigiKey	BHX1-1632-SM-ND	SMD Battery socket for CR1632	1
*	CR1632	--	--	--	--	DigiKey	P036-ND	Battery, CR1632	1
C1	100n	1.7825	1.6525	270	Front	DigiKey	490-1734-1-ND	Decoupling Capacitor	1
C2	1u	2.5050	1.4000	270	Front	DigiKey	445-1589-1-ND	Non-electrolytic (Ceramic)	1
C3	2u2	3.0675	1.0975	0	Front	DigiKey	493-2331-1-ND	Tantalum, Polarized, 10V	1
C4	100n	2.9025	1.0975	180	Front	DigiKey	490-1734-1-ND	Decoupling Capacitor	1
C5	1u	2.6450	1.3700	180	Front	DigiKey	445-1589-1-ND	Non-electrolytic (Ceramic)	1
C6	47u	2.8925	1.5400	90	Front	DigiKey	PCE3875CT-ND	Electrolytic, SMD	1
C7	100n	2.6400	1.6750	0	Front	DigiKey	490-1734-1-ND	Decoupling Capacitor	1
C8	100n	2.9100	1.3675	0	Front	DigiKey	490-1734-1-ND	Decoupling Capacitor	1
C9	100n	1.5575	1.3200	0	Back	DigiKey	490-1734-1-ND	Decoupling Capacitor	1
C10	22p	2.3775	1.1350	270	Front	DigiKey	709-1172-1-ND		1
C11	22p	2.2725	1.1350	90	Front	DigiKey	709-1172-1-ND		1
D1	LED	2.5375	1.0975	0	Front	DigiKey	475-2555-1-ND	LED, any color, 2mA current	1
D2	LED	2.7000	1.0975	0	Front	DigiKey	475-2555-1-ND	LED, any color, 2mA current	1
IC1	ATMEGA8-AI	2.2525	1.6350	270	Front	DigiKey	ATMEGA328-AU-ND	Micro-controller	1
P3	BootDrive	3.3900	1.9000	90	Front	DigiKey	475-2555-1-ND	Header for BootDrive	1
P4	CONN_6	2.2825	2.1100	0	Front	DigiKey	475-2555-1-ND	Buckler Interface	1
P5	CONN_6	2.9825	2.1100	0	Front	DigiKey	475-2555-1-ND	Buckler Interface	1
P6	CONN_2	3.1125	1.2600	270	Front	DigiKey	475-2555-1-ND	Ext. 9V Battery	1
P7	GPS_UP501	3.3900	1.3000	270	Front	DigiKey	475-2555-1-ND	GPS Header	1
P8	FTDI	3.2325	1.7100	90	Front	DigiKey	475-2555-1-ND	FTDI <>USB Interface	1
P9	ISP	1.8675	1.1800	0	Front	DigiKey	609-3456-ND	ISP Programming Interface	1
P10	CD2	1.5950	1.1500	0	Back	DigiKey	S5635-ND	ChronoDot/rtcBoB compatible connections	1
P11	CD2	1.1450	1.6000	90	Back	DigiKey	S5635-ND	either P10+P12 or P11+P13	1
P12	CD1	1.5950	2.0500	0	Back	DigiKey	S5635-ND		1
P13	CD1	2.0450	1.6000	90	Back	DigiKey	S5635-ND		1
PCB1	PCB					seeed		PCB, double side, 2.5" x 1.2"	1
R1	10k	3.1325	1.9350	90	Front	DigiKey	RR12P10.0KDCT-ND		1
R2	10k	3.0275	1.9350	90	Front	DigiKey	RR12P10.0KDCT-ND		1
R3	10k	1.5325	1.1950	270	Front	DigiKey	RR12P10.0KDCT-ND		1
R4	10k	1.5325	1.3525	90	Front	DigiKey	RR12P10.0KDCT-ND		1
R5	470E	2.5375	1.1925	180	Front	DigiKey	RR12P1.5KDCT-ND	Use 1.5k instead of 470 Ohm	1
R6	10k	1.6325	1.3525	90	Front	DigiKey	RR12P10.0KDCT-ND		1
R7	10k	2.6400	1.7750	0	Front	DigiKey	RR12P10.0KDCT-ND		1
R8	470E	2.7000	1.1925	180	Front	DigiKey	RR12P1.5KDCT-ND	Use 1.5k instead of 470 Ohm	1
R9	10k	1.8400	1.8325	90	Back	DigiKey	RR12P10.0KDCT-ND		1
SD1	SD_CARD_MICRO	1.2625	1.5350	270	Front	DigiKey	101-00434-68-1-ND	CONN SIM+MICRO-SD 14PIN PCB GOLD	1

SW1	SW_PUSH	1.8400	1.9725	180	Front	DigiKey	P12301SCT-ND	Reset Switch	1
U1	MCP1700T-3302E/TT	2.6450	1.5300	180	Front	DigiKey	MCP1700T3302ETTCT-ND	3.3V Regulator	1
U2	74HC125	1.2825	1.2500	0	Front	DigiKey	MC74HC125ADGOS-ND	Alternative P/N – 296-1192-1-ND	1
U3	MIC5219-5.0BM5	2.9050	1.2350	90	Front	DigiKey	576-2770-1-ND	5.0V Regulator	1
U4	DS3231N	1.5725	1.6075	180	Back	DigiKey	DS3231S#-ND	RTC	1
X1	CRYSTAL_2	2.2025	1.2825	180	Front	DigiKey	478-6622-1-ND	16MHz Crystal, SMD	1

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NOT USED COMPONENTS

B1	I/O							break out pads	1
B2	I/O							break out pads	1
B3	I/O							break out pads	1
B4	I/O							break out pads	1
B5	I/O							break out pads	1
B6	I/O							break out pads	1
B7	I/O							break out pads	1
B8	I/O							break out pads	1
B9	I/O							break out pads	1
B10	I/O							break out pads	1
B11	I/O							break out pads	1
B12	I/O							break out pads	1
B13	I/O							break out pads	1
B14	I/O							break out pads	1
B15	I/O							break out pads	1
B16	I/O							break out pads	1
B17	I/O							break out pads	1
B18	I/O							break out pads	1
B19	I/O							break out pads	1
P1	I/O							break out pads	1
SC1	SCREW							Mounting Hole	1

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MISC. COMPONENTS

	SD_CARD	Tyco-TE Connectivity – Mfg. Data
		Newark element 14 online
		Digikey

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GRAND TOTAL