BoM, for kit building assembly

ref	value	Vendor	Vendor P/N	NOTE1	NOTE 2	QTY	AMOUNT
BT1	BATT_RTC	DigiKey	3003K-ND		Battery Socket	1	$0.59
--	3V CR2032 Battery	DigiKey	P189-ND		LR2032 Coin Battery	1	$0.28
C1	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C2	100u	DigiKey	P833-ND		Capacitor Voltage Rating >= 16V	1	$0.25
C3	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C4	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C5	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C6	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C7	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C8	100u	DigiKey	P833-ND		Capacitor Voltage Rating >= 16V	1	$0.25
C9	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C10	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C13	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C14	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
C15	100n	DigiKey	399-5863-ND		Decoupling capacitor	1	$0.22
D1	GRN	DigiKey	1080-1134-ND		Debug LED, 3mm or 5mm LED, any Color	1	$0.41
D2	YEL	DigiKey	1080-1134-ND		Debug LED, 3mm or 5mm LED, any Color	1	$0.41
D3	PWR	DigiKey	1080-1134-ND		Debug LED, 3mm or 5mm LED, any Color	1	$0.41
D4	3V3_Z	DigiKey	1N5226BFSCT-ND		Zener Diode, 3.3V, for DCF77	1	$0.12
D5	1N4007	DigiKey	1N4007DICT-ND		Diode, for reverse polarity protection	1	$0.30
K1	PWR	DigiKey	SAM1031-50-ND		Header, Male, 3 pin, for PWR_SEL	1	$0.19
--	--	DigiKey	S9341-ND		Jumper socket for PWR_SEL K1	1	$0.19
K2	CONN_3	DigiKey	SAM1031-50-ND		Header, Male, 3 pin, for LED_ENABLE	1	$0.19
--	--	DigiKey	S9341-ND		Jumper socket for LED_ENABLE K2	1	$0.19
P1	DCF77	DigiKey	SAM1031-50-ND		Header, Male, 6 pin, for DCF77	1	$0.37
P5	ANODES	DigiKey	SAM1095-36-ND		Header, 16x2 pin	1	$2.85
P6	KATHODES	DigiKey	SAM1095-36-ND		Header, 16x2 pin	1	$2.85
P7	FTDI	DigiKey	SAM1043-50-ND		Header, 6 pin, right angle, for FTDI	1	$0.42
P13	ISP	DigiKey	SAM1095-36-ND	Optional	Header, 3x2 pin	1	$0.53
P20	DC_IN	DigiKey	CP-002B-ND		Barrel socket	1	$0.92
R1	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R2	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R3	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R4	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R5	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R6	4k7	DigiKey	CF18JT4K70CT-ND		Resistor, 1/8W, 5%	1	$0.09
R7	4k7	DigiKey	CF18JT4K70CT-ND		Resistor, 1/8W, 5%	1	$0.09

BoM, for kit building assembly

ref	value	Vendor	Vendor P/N	NOTE1	NOTE 2	QTY	AMOUNT
R8	1k	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R9	1k	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R10	10K	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R11	LDR	DigiKey	PDV-P9007-ND		LDR, 10k to 100k	1	$1.51
R12	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R13	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R14	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R15	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R16	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R17	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R18	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R19	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R20	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R21	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R22	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R23	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R24	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R25	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R26	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R27	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R28	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R29	R	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R30	4k7	DigiKey	CF18JT4K70CT-ND		Resistor, 1/8W, 5%	1	$0.09
R31	1k	DigiKey	CF18JT1K00CT-ND		Resistor, 1/8W, 5%	1	$0.09
R32	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
R33	10k	DigiKey	CF18JT10K0CT-ND		Resistor, 1/8W, 5%	1	$0.09
SW1	MODE	DigiKey	450-1657-ND		Right Angle switch	1	$0.20
SW2	HOUR+	DigiKey	450-1657-ND		Right Angle switch	1	$0.20
SW3	MIN+	DigiKey	450-1657-ND		Right Angle switch	1	$0.20
SW4	RST	DigiKey	450-1657-ND		Right Angle switch	1	$0.20
SW5	ENTER	DigiKey	450-1657-ND		Right Angle switch	1	$0.20
U1	74HC595	DigiKey	568-1484-5-ND		IC SHIFT REGISTER 8BIT 16DIP	1	$0.60
*	Socket 16 DIP	DigiKey	A100206-ND		Socket for IC U1	1	$0.24
U2	74HC595	DigiKey	568-1484-5-ND		IC SHIFT REGISTER 8BIT 16DIP	1	$0.60
*	Socket 16 DIP	DigiKey	A100206-ND		Socket for IC U2	1	$0.24
U3	ATMEGA8-P	DigiKey	ATMEGA328-PU-ND		IC MCU AVR 32K FLASH 28PDIP	1	$2.88
*	Socket 28 DIP	DigiKey	A100210-ND		Socket for IC U3	1	$2.88

BoM, for kit building assembly

ref	value	Vendor	Vendor P/N	NOTE1	NOTE 2	QTY	AMOUNT
U4	74HC595	DigiKey	568-1484-5-ND		IC SHIFT REGISTER 8BIT 16DIP	1	$0.60
*	Socket 16 DIP	DigiKey	A100206-ND		Socket for IC U4	1	$0.24
U5	74HC595	DigiKey	568-1484-5-ND		IC SHIFT REGISTER 8BIT 16DIP	1	$0.60
*	Socket 16 DIP	DigiKey	A100206-ND		Socket for IC U5	1	$0.24
U6	DS1307	DigiKey	DS1307+-ND		IC RTC SERIAL 512K 8-DIP	1	$3.81
*	Socket 8 DIP	DigiKey	A100204-ND		Socket for IC U6	1	$0.19
U7	UDN2981A	Jameco	1762681		Trans Darlington NPN/PNP 50 Volt 0.5A 18-Pin Plastic	1	$1.79
*	Socket 18 DIP	DigiKey	A100207-ND		Socket for IC U7	1	$0.27
U8	UDN2981A	Jameco	1762681		Trans Darlington NPN/PNP 50 Volt 0.5A 18-Pin Plastic	1	$1.79
*	Socket 18 DIP	DigiKey	A100207-ND		Socket for IC U8	1	$0.27
U9	KA7805E	Web	http://de.rs-online.com/web/p/		http://de.rs-online.com/web/p/linear-regulator/671(	1	$0.53
X1	16MHz	DigiKey	X908-ND		Resonator, with capacitors, 3 pin	1	$0.70
X2	CRYSTAL	DigiKey	535-9034-ND		Crystal for RTC U6	1	$0.25
PCB1	PCB	--			Main Board	1	$7.00
						88	**$45.25**

NOT USED COMPONENTS

ref	value	Vendor	Vendor P/N	NOTE1	NOTE 2	QTY	AMOUNT
A0	CONN_1	--	Break Out Pad, no component		Arduino Port A0	1	$0.00
A1	CONN_1	--	Break Out Pad, no component		Arduino Port A1	1	$0.00
A2	CONN_1	--	Break Out Pad, no component		Arduino Port A2	1	$0.00
C11	22p	DigiKey	BC1034CT-ND	Optional	if using crystal instead of resonator	1	$0.34
C12	22p	DigiKey	BC1034CT-ND	Optional	if using crystal instead of resonator	1	$0.34
CD1	CDOT1	DigiKey	3M9515-ND	Optional	if using I2SD, rtcBoB or ChronoDot, Socket, 4 pin	1	$0.75
CD2	CDOT2	DigiKey	3M9515-ND	Optional	if using I2SD, rtcBoB or ChronoDot, Socket, 4 pin	1	$0.75
CD3	CDOT3	DigiKey	3M9515-ND	Optional	if using I2SD, rtcBoB or ChronoDot, Socket, 4 pin	1	$0.75
D13	CONN_1	--	Break Out Pad, no component		Arduino Port D13	1	$0.00
P2	SDA	DigiKey	SAM1031-50-ND	Optional	Header, Male, 2 pin, Link for INT, OPEN for EXT	1	$0.12
--	--	DigiKey	S9341-ND	Optional	Jumper socket for SCL, K4	1	$0.19
P3	SCL	DigiKey	SAM1031-50-ND	Optional	Header, Male, 2 pin, Link for INT, OPEN for EXT	1	$0.12
--	--	DigiKey	S9341-ND	Optional	Jumper socket for SDL, K5	1	$0.19
P4	CONN_1	--			Fixing Screw for Voltage Regulator	1	$0.00
P8	CONN_1	--			Fixing Screw for Board	1	$0.00
P9	CONN_1	--			Fixing Screw for Board	1	$0.00
P10	CONN_1	--			Fixing Screw for Board	1	$0.00
P11	CONN_1	--			Fixing Screw for Board	1	$0.00
P24	DIL6	--			Prototyping area	1	$0.00
P25	DIL6	--			Prototyping area	1	$0.00
P26	DIL6	--			Prototyping area	1	$0.00

BoM, for kit building assembly

ref	value	Vendor	Vendor P/N	NOTE1	NOTE 2	QTY	AMOUNT
P27	DIL6	--			Prototyping area	1	$0.00
P28	DIL6	--			Prototyping area	1	$0.00
P29	DIL6	--			Prototyping area	1	$0.00
P30	DIL6	--			Prototyping area	1	$0.00
P31	DIL6	--			Prototyping area	1	$0.00
P32	DIL6	--			Prototyping area	1	$0.00
P33	DIL6	--			Prototyping area	1	$0.00
P34	DIL6	--			Prototyping area	1	$0.00
P35	DIL6	--			Prototyping area	1	$0.00
P36	DIL6	--			Prototyping area	1	$0.00
P37	DIL6	--			Prototyping area	1	$0.00
P41	STACK-L	DigiKey	SAM1009-50-ND	Optional	Socket, 4 pin, right angle, for daisy-chaining boards	1	$0.78
P42	STACK-R	DigiKey	SAM1043-50-ND	Optional	Header, 4 pin, right angle, for daisy-chaining boards	1	$0.28
P49	CONN_1	--			Fixing Screw for rtcBoB	1	$0.00
P50	CONN_1	--			Fixing Screw for rtcBoB	1	$0.00
P51	CONN_1	--			Fixing Screw for rtcBoB	1	$0.00
P52	CONN_1	--			Fixing Screw for rtcBoB	1	$0.00
U10	DS3231N	DigiKey	DS3231S#-ND	Optional	IC, RTC	1	$7.94

	39	$12.55

	GRAND TOTAL	$45.25