REF	VALUE	DESC	PRICE/1000	ASSY_STATUS	SUPPLIER_1	SUPPLIER_2
B1	CR_2032	HOLDER BATT CR2032	0.230	Y	Mouser 712-BAT-HLD-001	Digikey BAT-HLD-001-ND
C1	22 pF	CAP CER SMD 0402 22 5 NPO	0.04	Y	Mouser 581-04023U220JAT2A	
C2	22 pF	CAP CER SMD 0402 22 5 NPO	0.04	Y	Mouser 581-04023U220JAT2A	
C3	12 pF	CAP CER SMD 0603 12 5 NPO	0.0103	Y	Mouser 81-GRM39C120J50	Digikey 490-1405-1-ND
C4	12 pF	CAP CER SMD 0603 12 5 NPO	0.0103	Y	Mouser 81-GRM39C120J50	Digikey 490-1405-1-ND
C5	12 pF	CAP CER SMD 0603 12 5 NPO	0.0103	Y	Mouser 81-GRM39C120J50	Digikey 490-1405-1-ND
C6	12 pF	CAP CER SMD 0603 12 5 NPO	0.0103	Y	Mouser 81-GRM39C120J50	Digikey 490-1405-1-ND
C8	.01 uF	CAP CER SMD .01 10 X7R 16V	0.015	Y	Mouser 81-GRM18R71C103KA01D	Digikey 490-1525-1-ND
C9	4.7 uF	CAP CER SMD 4.7uF 10% X7R 25V	0.11	Y	Mouser 81-GRM31CR71E475KA88	Digikey 490-1809-1-ND
C10	4.7 uF	CAP CER SMD 4.7uF 10% X7R 25V	0.11	Y	Mouser 81-GRM31CR71E475KA88	Digikey 490-1809-1-ND
C11	22 pF	CAR CER SMD 0402 22 5 NPO	0.04	Y	Mouser 581-04023U220JAT2A	
C12	4.7 uF	CAP CER SMD 4.7uF 10% X7R 25V	0.11	Y	Mouser 81-GRM31CR71E475KA88	Digikey 490-1809-1-ND
D1	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D2	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D3	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D4	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D5	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D6	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D7	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D8	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D9	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D10	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D11	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D12	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D13	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D14	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D15	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D16	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D17	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D18	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D19	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D20	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D21	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D22	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D23	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D24	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D25	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D26	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D27	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D28	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D29	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D30	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D31	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D32	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D33	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D34	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D35	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D36	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D37	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D38	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D39	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D40	RED	DIODE LED RED 1206	0.05	Y	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D45	S01575	DIODE SIG SMD 75V 1206	0.04	Y	Mouser 652-CD1206-S01575	Digi CD1206-S01575CT-ND
R1	120	RES CER SMD 0603 120 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R2	120	RES CER SMD 0603 120 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R3	120	RES CER SMD 0603 120 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R4	120	RES CER SMD 0603 120 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R5	120	RES CER SMD 0603 120 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R6	10K	RES CER SMD 0603 10K 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ103V	Digikey P10KGCT-ND
R10	120	RES CER SMD 0603 120 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R12	0	RES CER SMD 0603 0	0.0026	Y	Mouser 667-ERJ-3GEY0R00V	Digikey P0.0GCT-ND
R13	10K	RES CER SMD 0603 10K 5 1/10	0.0026	Y	Mouser 667-ERJ-3GEYJ103V	Digikey P10KGCT-ND
R14	0	RES CER SMD 0603 0	0.0026	Y	Mouser 667-ERJ-3GEY0R00V	Digikey P0.0GCT-ND
S1	RESET	SW PB SMD N.O.	0.25	Y	Mouser 667-EVQQ2P02W	Digikey P12943SCT-ND
U1	ATMEGA128RFA1	IC MICROCONT RF 2450	5.28	Y	Mouser 556-ATMEGA128RFA1-ZU	Digi ATMEGA128RFA1-ZU-ND

Y1	16.000 MHz	XTAL 16 MHZ	0.5	Y	Mouser 815-ABMM-16-B2-T	DigiKey 535-9155-1-ND
Y2	32.768 KHz	XTAL RTC 32768	0.8	Y	Mouser 520-ECS327-12.5-17X-TR	DigiKey XC1195CT-ND
		TOTAL ACTIVE PART COST	9.6322	(500 pc. Estimate)		

NON-ITEMIZED PARTS

	BATTERY, CR-2032	BATTERY, CR-2032	0.280	Y		Diigikey P189-ND
	BOARD, PC, THOTCO	Printed Circuit, each	3.000	Y	Engineer's 500 pc. Estimate.	
		TOTAL NON-ITEMIZED COST	3.280			

DO NOT PLACE/UNUSED PARTS

C13	4.7 uF	CAP CER SMD 4.7u 10% X7R 25V	0.11	DO NOT PLACE	Mouser 81-GRM31CR71E475KA88	Digikey 490-1809-1-ND
C14	.01 uF	CAP CER SMD .01 10 X7R 16V	0.015	DO NOT PLACE	Mouser 81-GRM18R71C103KA01D	Digikey 490-1525-1-ND
C15	10 uF	CAP LYTIC SMD 10uF 20% 16V	0.1	DO NOT PLACE	Mouser 647-UWF1C100MCL1GB	
D41	RxD	DIODE LED RED 1206	0.05	DO NOT PLACE	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D42	TxD	DIODE LED RED 1206	0.05	DO NOT PLACE	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D43	SCK	DIODE LED RED 1206	0.05	DO NOT PLACE	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
D44	ExT_PwR	DIODE LED RED 1206	0.05	DO NOT PLACE	Mouser 604-APTL3216SURCK	Digi 754-1165-1-ND
F1	.5 A	FUSE POLY .5A 15V	0.21	DO NOT PLACE	Mouser 576-1206L050/15YR	Digikey F3733CT-ND
J1	POWER	06-WAY SIL VERT SOCKET	0.48	DO NOT PLACE	Mouser 855-M20-7820646	DigiKey 952-1809-ND
J2	ANALOG	06-WAY SIL VERT SOCKET	0.48	DO NOT PLACE	Mouser 855-M20-7820646	DigiKey 952-1809-ND
J3	DIGITAL_0	SOCKET STRP .1 1X8	0.55	DO NOT PLACE	Mouser 855-M20-7820842	Digikey 952-1823-ND
J4	DIGITAL_1	SOCKET STRP .1 1X8	0.55	DO NOT PLACE	Mouser 855-M20-7820842	Digikey 952-1823-ND
P1	USB_2_MALE	CONN USB PCB M	0	DO NOT PLACE		
P2	AVR-ISP-6A	CONN SPI AVR	0.48	DO NOT PLACE	Mouser 649-75869-131LF	Digikey 609-2845-ND
R7	1K	RES CER SMD 0603 1K 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ102V	DigiKey P1.0KGCT-ND
R8	1K	RES CER SMD 0603 1K 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ102V	DigiKey P1.0KGCT-ND
R9	1K	RES CER SMD 0603 1K 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ102V	DigiKey P1.0KGCT-ND
R11	120	RES CER SMD 0603 120 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ121V	DigiKey P120GCT-ND
R15	0	RES CER SMD 0603 0	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEY0R00V	Digikey P0.0GCT-ND
R16	1K	RES CER SMD 0603 1K 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ102V	DigiKey P1.0KGCT-ND
R17	5V	VRSTR ESD 0603 LO-CAP	0.09	DO NOT PLACE	Mouser 652-CG0603MLC-05E	Digi CG0603MLC-05ECT-ND
R18	5V	VRSTR ESD 0603 LO-CAP	0.09	DO NOT PLACE	Mouser 652-CG0603MLC-05E	Digi CG0603MLC-05ECT-ND
R19	1K	RES CER SMD 0603 1K 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ102V	DigiKey P1.0KGCT-ND
R20	1K	RES CER SMD 0603 1K 5 1/10	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEYJ102V	DigiKey P1.0KGCT-ND
R21	0	RES CER SMD 0603 0	0.0026	DO NOT PLACE	Mouser 667-ERJ-3GEY0R00V	Digikey P0.0GCT-ND
S2	PF1	SW PB SMD N.O.	0.25	DO NOT PLACE	Mouser 667-EVQQ2P02W	Digikey P12943SCT-ND
S3	PF2	SW PB SMD N.O.	0.25	DO NOT PLACE	Mouser 667-EVQQ2P02W	Digikey P12943SCT-ND
TP1	USB_D-	TEST POINT	0	DO NOT PLACE		
TP2	USB_D+	TEST POINT	0	DO NOT PLACE		
TP3	SER_RXD	TEST POINT	0	DO NOT PLACE		
TP4	SER_TXD	TEST POINT	0	DO NOT PLACE		
U2	LP2985-33	IC REG 3.3V LDO SOT5	0.36	DO NOT PLACE	Mouser 595-LP2985-33DBVR	Digi 296-18476-1-ND
Z3	ANTENNA	DIPOLE_FOLDED	0	DO NOT PLACE		
		TOTAL DO NOT PLACE/UNUSED**	4.238			

GRAND TOTAL DEFAULT CONFIG.	*12.912*

BACKWARD COMPAT CONFIG	*17.151*

**NOTE: Arduino compatibility features are incomplete at this time.