

Qty	Note	REF	DES	Type	Bill of Materials Description
1				ASM	32-ohm speaker
1				ASM	Black case, 7"x 5-13/16"x 2"
11				CAP	Ceramic, X7R, 20%, 0.1uF
1				CAP	Ceramic, Z5U, -20/+80%, 0.47 uF
1				CAP	Ceramic, Z5U, -20/+80%, 0.0033 uF
2				CAP	Ceramic Z5U, -20/+80%, 22 pF
1				CAP	Ceramic Z5U, -20/+80%, 330 pF
3				CAP-Elect	Electrolytic 10uV 16V, 20%
1				CAP-Elect	Electrolytic 4.7uV 25V, 20%
1				CAP-Elect	Electrolytic 0.1uV 25V, 20%
1				CON	2-pin for TechArts power plug
1				CON	2-pin header
1				CON	2-pin jumper
1				CON	Test point, black
1				CON	Test point, red
1				CON	DB9 serial connector, female, board mount
1				CPU	MC9S12C32MFUE25, 80-pin QFP
1				CRYS	8 MHz crystal,50ppm,HC49/U
1				IC	78M05 500MA 5V TO-220
1				IC	MC34119, AUDIO LOW PWR 8-PDIP
1				IC	TLV5616 12-bit DAC
1				IC	LM4041CILPR shunt diode reference
1				IC	RS232 driver
1				IC	3-Terminal 1A Positive Voltage Regulator
1				JACK	DC Power MALE 2.1mm
1				JACK	Stereo Jack
1				LED	Green 2mA 5mm diffused
1				PCB	PCB plus shipping
1				RES	Carbon 1/6W, 5%, 2.7K
1				RES	Carbon 1/6W, 5%, 3.9K
1				RES	Carbon 1/6W, 5%, 4.7K
1				RES	Carbon 1/6W, 5%, 10K
1				RES	Carbon 1/6W, 5%, 10M
5				SW	B3F tactile push button switch
1				SW	On/off power switch
1				BAT	7.2 V 5400mAh Battery
6				RES	Carbon 1/4W, 5%, 10K
1				RES	Carbon 1/4W, 5%, 10.2K
1				RES	Carbon 1/4W, 5%, 15K
1				RES	Carbon 1/4W, 5%, 20K

EE345L Fall 2010	October 15, 2010		EE345L pays for the PCB	
Manufacturer	Mfg. P/N	Distributor	P/N	Unit cost
		AllElectronics	SK-230	\$0.50
		BGMicro	CAS1007	\$1.00
		Jameco	544921	\$0.14
Kemet	C320C474M5U5TA	Digikey	399-4309-ND	\$0.40
Kemet	C320C332M5U5TA			\$0.40
		Jameco	15405	\$0.03
		Jameco	15410	\$0.03
Panasonic - ECG	ECE-A1CKA100	Digikey	P807-ND	\$0.22
Panasonic - ECG	ECE-A1EKA4R7	Digikey	P812-ND	\$0.14
Panasonic - ECG	ECE-A1EKA4R7	Digikey	P752-ND	\$0.14
		AllElectronics	CON-242	\$0.70
		AllElectronics	SBH-2	\$0.10
		AllElectronics	SBC-2	\$0.27
Keystone Electronics	5001	Digikey	5001K-ND	\$0.29
Keystone Electronics	5000	Digikey	5000K-ND	\$0.29
		Jameco	15771	\$0.65
Freescall	MC9S12C128MFUE			\$5.00
		Jameco	14728	\$0.59
National	LM78M05	Jameco	192233	\$0.19
Freescall	MC34119	Jameco	316865	\$2.25
TI	TLV5616	TI	TLV5616CP	\$6.66
TI	LM4041CILPR	TI	LM4041CILPR	\$0.90
STMicronics	ST232CN	Jameco	2001171	\$0.58
Fairchild	LM7805	Digikey	rLM7805CT-ND	\$0.65
		Jameco	101179	\$0.55
		AllElectronics	MJW-12	\$0.09
Avago Technologies	HLMP-4740	Digikey	516-1327-ND	\$0.29
Advanced Circuits		Advanced Circuits		\$49.06
Yageo	CFR-12JB-2K7	Digikey	2.7KEBK-ND	\$0.02
Yageo	CFR-12JB-3K9	Digikey	3.9KEBK-ND	\$0.02
Yageo	CFR-12JB-4K7	Digikey	4.7KEBK-ND	\$0.02
Yageo	CFR-12JB-10K	Digikey	10KEBK-ND	\$0.02
Yageo	CFR-12JB-10M	Digikey	10MEBK-ND	\$0.02
Omron Electronics	B3F-1052	Digikey	SW405-ND	\$0.17
		BGMicro	SWT1010	\$0.85
Tenergy	807295	Tenergy	30136	\$55.99
Yageo	CFR-12JB-10K	Digikey	10KEBK-ND	\$0.02
Yageo	CFR-12JB-10K2	Digikey	10K2EBK-ND	\$0.02
Yageo	CFR-12JB-15K	Digikey	15KEBK-ND	\$0.02
Yageo	CFR-12JB-20K	Digikey	20KEBK-ND	\$0.02

Cost	PCB Artist	Where to	Inventory
\$0.50	Speaker	Prof	
\$1.00	CAS1007	Prof	
\$1.54	Ceramic0.2	Prof	
\$0.40	Ceramic	Prof	
\$0.40	Ceramic	Prof	
\$0.06	Ceramic	Prof	
\$0.03	Ceramic	Prof	
\$0.66	Electrolytic	some	
\$0.14	Electrolytic	some	
\$0.14	Electrolytic	some	
\$0.70	PowerJumper	Prof	
\$0.10	Jumper2	Prof	
\$0.27	goes with SBH-2	Prof	
\$0.29	testpoint	Prof	
\$0.29	testpoint	Prof	
\$0.65	SerialDB9	Prof	
\$5.00	MC9S12C128	Prof	8
\$0.59	XTAL	Prof	
\$0.19	LM7805CT	Prof	
\$2.25	MC34119	not free	
\$6.66	TLV5616	free sample	
\$0.90	LM4041	free sample	
\$0.58	MAX3232	Prof	
\$0.65	LM7805CT	www.digikey.com	
\$0.55	PowerJack	Prof	
\$0.09	HeadphoneJack	Prof	
\$0.29	LEDT1.75	Prof	
\$49.06		<a href="http://www.4pcb.com/">http://www.4pcb.com/</a>	
\$0.02	0.125Wresistor	Prof	
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\$0.02	0.125Wresistor	Prof	
\$0.02	0.125Wresistor	Prof	
\$0.85	B3F-1050	Prof	
\$0.85	BOXMOUNTBUTTON	some	
\$55.99		<a href="http://tenergybattery.com">tenergybattery.com</a>	
\$0.14	0.25Wresistor	Prof	
\$0.02	0.25Wresistor	Prof	
\$0.02	0.25Wresistor	Prof	
\$0.02	0.25Wresistor	Prof	

\$132.01

Total Cost