

Bill of Materials  
EE445L Fall 2016

October 10, 2016  
EE445L pays for the PCB

**Total Cost:** \$73.23

Qty Note [REF DES Note](#)

Quantity	REF DES	Type	Description	Manufacturer
1	J4	ASM	32-ohm speaker	Kemet
2	C7 C9	CAP	Ceramic, Z5U, -20/+80%, 0.47 uF	
7	C15 C4 C6 C	CAP	Ceramic, Z5U, -20/+80%, 0.1 uF	
3	C8 C3 C5	CAP	Ceramic, Z5U, -20/+80%, 0.01 uF	Murata 50V 5% AVX Corporation
2	C13 C14	CAP	Ceramic C0G, 10%, 10 pF	
1	C12	CAP-Tant	Tantalum, 16V, 20% 2.2 uF	
3	C1 C2 C17	CAP-Tant	Tantalum, 16V, 10% 4.7 uF	Keystone Electronics FCI
8	GND TP2 T	CON	Test point, black	
1	J3	CON	Logic Analyzer connector	
1	J1	CON	JTAG 1 by 5 male header	TI
1	U1	CPU	TM4C123GH6PM 64-pin LQFP	
1	Y1	CRYS	NX5032GA-16.000000	
1	U2	IC	LM2937 3.3 V regulator TO220, 500mA	TI
1	U4	IC	TLV5616 12-bit DAC	TI
1	U5	IC	TPA731 audio amp (pin 1 low) 700mW	TI
1	U6	IC	LM4041CILPR shunt diode reference	TI
1	J5	LCD	18-bit color 128*160 1.8" TFT LCD display	Sitronix
1	D1	LED	Green 2mA 5mm diffused	Avago Technologies
1	R3	RES	Carbon 1/6W, 5%, 470	Yageo
6	R4 R6 R7 R	RES	Carbon 1/6W, 5%, 10K	Yageo
2	R10 R11	RES	Carbon 1/6W, 5%, 22K	Yageo
1	R9	RES	Carbon 1/6W, 5%, 100K	Yageo
1	R1	RES	Carbon 1/6W, 5%, 1M	Yageo
4	Reset SW2 S	SW	B3F tactile push button switch	Omron Electronics
2	J2	BATTERY	Tenergy 3.7V 2600mAh Lithium-Ion 18650 Flat Top Tenergy	

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BOX

SOD6747-2.0 Kit box 6.74 x 4.77 x 2.18 in. with PCPacTec Enclosures

"not free" means you have to buy it

"free sample" means you have to order it

"Cabinet means in one of the six black cabinets in professor's office (bring a print out of your SCH")

"Valvano" means ask Valvano, quantity and style will vary (bring a print out of your SCH circuit)

"Box means in box in your Bard's office (bring a print out of your SCH circuit)

Mfg. P/N	Distributor	P/N	Unit cost	Cost	Current	PCB Artist
	AllElectronics	SK-230	\$0.50	\$0.50	<b>41</b>	Speaker
C320C474M5U5TA	Digikey	399-4309-ND	\$0.40	\$0.80	<b>0</b>	Ceramic
	Digikey	399-4151-ND	\$0.05	\$0.32	<b>0</b>	Ceramic
	Digikey	399-4188-ND	\$0.40	\$1.20	<b>0</b>	Ceramic
RDE5C1H100J0P1H03B	Digikey	490-8629-ND	\$0.31	\$0.62	<b>0</b>	Ceramic
TAP225M016CCS	Mouser	581-TAP225M016CCS	\$0.29	\$0.29	<b>0</b>	tantalum
	Jameco	94035	\$0.22	\$0.66	<b>0</b>	tantalum
5001	Digikey	36-5001K-ND	\$0.23	\$1.84	<b>0</b>	testpoint
68021-208HLF	Digikey	609-3344-ND	\$0.27	\$0.27	<b>0</b>	LogicAnalyzer
			\$0.29	\$0.29	<b>0</b>	JTAG
TM4C123GH6PMI	Mouser	595-TM4C123GH6PMI	\$11.55	\$11.55	<b>131</b>	TM4C123GH6PM
NX5032GA-16.000000	Digikey	644-1037-1-ND	\$0.51	\$0.51	<b>0</b>	XTAL/NX5032
LM2937ET-3.3/NOPB	Digikey	LM2937ET-3.3-ND	\$1.17	\$1.17	<b>0</b>	LM2937-3.3
TLV5616	TI	TLV5616CP		\$0.00	<b>0</b>	TLV5616
TPA731D	TI	TPA731D	\$1.84	\$1.84	<b>0</b>	TPA731
LM4041CILPR	TI	LM4041CILPR	\$0.90	\$0.90	<b>0</b>	LM4041
ST7735R	Adafruit	358	\$19.96	\$19.96	<b>90</b>	ST7735
HLMP-4740	Digikey	516-1327-ND	\$0.29	\$0.29	<b>0</b>	LEDT1.75
CFR-12JB-470R	Digikey	470EBK-ND	\$0.02	\$0.02	<b>0</b>	0.125Wresistor
CFR-12JB-10K	Digikey	10KEBK-ND	\$0.02	\$0.14	<b>0</b>	0.125Wresistor
CFR-12JB-22K	Digikey	22KEBK-ND	\$0.02	\$0.05	<b>0</b>	0.125Wresistor
CFR-12JB-100K	Digikey	100KEBK-ND	\$0.02	\$0.02	<b>0</b>	0.125Wresistor
CFR-12JB-1M0	Digikey	1.0MEBK-ND	\$0.02	\$0.02	<b>0</b>	0.125Wresistor
B3F-1052	Digikey	SW405-ND	\$0.17	\$0.68	<b>0</b>	B3F-1050
	Amazon	MH48285	\$7.40	\$14.80	<b>131</b>	Header

PacTec Enclosures SOD6747-2.0

\$14.48

\$14.48

**0** Box

Where to get it?	Current	Datasheet
Cabinet	<b>41</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
solder to PCB	<b>131</b>	tm4c123_sheet
Cabinet	<b>0</b>	crystal_sheet
Cabinet	<b>0</b>	regulator_sheet
free sample	<b>0</b>	dac_sheet
free sample	<b>0</b>	amp_sheet
free sample	<b>0</b>	diode_sheet
not free	<b>90</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Cabinet	<b>0</b>	
Online	<b>131</b>	

Online

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