ECE ROBOT MATERIALS

Item	Qty	Description	Vender	Part Number	Designator	2007	Extended Price	Estimated 08	
		Electrical						**$37.60** (no uP)	
1	1	PCB, 5"x11.94" Trapazoidal, Routed				$20.40	$20.40	$20.40	
								$0.00	
3	4	Capacitor, Multi-layer, 0.1uF	Digikey	P4593-ND	C2-6, C8-9	$0.09	$0.36	$0.36	
4	1	Capacitor, Electrolytic, 100uF or 120 uF	Stockroom		C1,C7			$0.00	
5	1	Diode, 1N4004, (for PS Reverse Polarity)	Mouser	625-1N4004-E3	D1	$0.04	$0.04	$0.04	
6	1	Display, 8 segment x 4, multiplexed, red or yellow	Digikey	67-1439-ND Red, 67-1441-ND for yellow	U1	$5.78	$5.78	$5.78	
7	5	LED, Mini	Stockroom		LED1-5			$0.00	
8	1	LM7805 5 Volt regulator	Mouser	513-NJM7805FA	VR2	$0.50	$0.50	$0.50	
9	1	HCS12 Application Module	Freescale	APS12C32SLK	U4	$37.00	$37.00	$37.00 uP	
9B	**1**	**74LS 138- 3to 8 line Decoder**	**Digikey**	**296-1639-5-ND**	**U3**	**$0.41**	**$0.41**	$0.41	
9C	**1**	**74LS47- 7 segment Decoder**	**Digikey**	**296-3712-5-ND**	**U2**	**$0.96**	**$0.96**	$0.96	
10	8	Resistor, 1/4 watt, 300	Digikey	P300BACT-ND	R6-R12, R17	$0.02	$0.16	$0.16	
11	3	Resistor, 1/4 watt, 460	Stockroom	N/A	R19-21	$0.02	$0.06	$0.06	
12	4	Resistor, 1/4 watt, 1K	Digikey	1.0KQBK-ND	R13-16	$0.02	$0.08	$0.08	
13	4	Resistor, 1/4 watt, 10K	Digikey	10KQBK-ND	R1-4,Bumper(2)	$0.02	$0.08	$0.08	
14	1	Resistor, Network, 10K x9, bussed	Mouser Digikey	652-4610X-1LF-10K 4610X-1-103-ND	R5	$0.24	$0.24	$0.24	
15	1	Resistor, Network,4.7k x8, inline	Digikey	4116R-1-472LF	R18	$0.38	$0.38	$0.38	
16	1	Resistor, 50K Var, 19 turn, Murata	Digikey	490-2889-ND	R22	$0.55	$0.55	$0.55	
17	1	Switch, DIP, 8 position	Digikey	GH7193-ND	S1	$0.85	$0.85	$0.85	
17B	**1**	**Switch SPST Power Switch**	**Circuit Specialists**	**8019L**	**S5**	**$0.39**	**$0.39**	$0.39	
18	4	Transistor, 2N3906	Mouser	610-2N3906	Q1-Q4	$0.05	$0.20	$0.20	
19	2	Switch, Momentary w/post	Digikey	EG1024-ND	Bumper	$0.39	$0.78	$0.78	
20	2	Button, Momentary	Digikey	P8012S-ND	S2-4	$0.19	$0.38	$0.38	
21	0	Shorting Jumper with tab	Mouser	151-8033			$0.00	$0.00	
22	2	Shorting Jumper	Digikey	S9000-nd	J17,J20	$0.08	$0.16	$0.16	
23	1	60 pin Dual Female Header		S7133-ND		$1.53	$1.53	$1.53	
24	3	Header, 0.1", 36 Position	Digikey	WM6436-ND	J1,J2,J3,J4, J10,J14,J15,J16, J20,J22,J23,	$0.99	$2.97	$2.97	
25	1	4 Pin Connector Housing	Digikey	A26965-nd	Power Connector	$0.34	$0.34	$0.34	
26	0	1 Pin Connector Housing	Digikey	A26962-nd	Jumpers	$0.00	$0.00	$0.00	
27	0	CONN TERM FEMALE 22-24AWG TIN	Digikey	A25993CT-ND		$0.20	$0.00	$0.00	
28	1	Keying Plug	Digikey	A3077-ND	Power Connector	$0.13	$0.13	$0.13	
29	1	4 pin receptical	Digikey	WM3002-ND	J6	$0.36	$0.36	$0.36	
30	1	6 pin receptical	Digikey	WM3004-ND	J8	$0.48	$0.48	$0.48	
		WM6436 36 pin header					Electrical:		$75.57
		Mechanical							
m1	1	TAMAYA BALL CASTER (comes in packs of 2, price is per robot)	TAMAYA	70144		$2.25	$2.25	$3.50	
m2	2	servo parallax	Parallax	900-00008		$6.95	$13.90	$25.90	
m8	2	WHEELS, Parallax	Parallax	721-00001		$3.25	$6.50	$6.50	
m9	2	(Rubber Bands for Wheels Included)	Parallax	721-00002		$0.00	$0.00	$0.00	
m11	1	BATTERY PACK (10)	Mouser	12BH310A		$1.19	$1.19	$1.19	
m5	4	1/4 Panhead Screw 6-32	Digikey	H354-ND		$0.02	$0.08	$0.08	
	8	1/4 Panhead Screw 4-40	Digikey	H342-ND		$0.02	$0.16	$0.16	
	7	3/16 Panhead Screw 4-40	Donated stock						
	3	3/8 Panhead Screw 4-40 in caster	Donated stock						
	1	3/4" Panhead Screw 4-40	Digikey	H150-ND		$0.02	$0.02	$0.02	
	2	4-40 nuts	Digikey	H216-ND		$0.01			
	2	2-56x1/4 Metalscrew	Digikey	PMS 256 0025 PH, H700-ND		$0.07	$0.14	$0.14	
	4	4-40 x 1 1/2" Round Aluminum Standoffs	Digikey	3483K-ND		$0.68	$2.72	$2.72	
	3	4-40 x1/4 Threaded Standoffs one for board, 3in Caster	Stockroom			$0.00	$0.00	$0.00	
	2	Keystone Threaded L-Brkt 6-32 Part # 4334	Mouser	534-4334		$0.45	$0.90	$0.90	
	4	Keystone Threaded L-Brkt 4-40 Part # 616	Mouser Digikey	534-616 616k-ND		$0.28	$1.12	$1.12	
								$0.00	
							Mechanical:		$28.98
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	TOTAL					COST WO SHIPPING	$104.55	$117.80 BOM cost	
						X1.2	$125.46	$141.36 w/ reqd stkrm markup	
	7	BATTERY AA not included				NA	NA NA		
		Notes:							
		Pricing does not include shipping charges from parts suppliers.							
		Notice that some components are donated goods. Price will increase accordingly once stock is used up.							