

[Electrotechnology Lab Kits](#)

Electrotechnology Lab Kits

The ***Electrotechnology Lab Kits*** link top left will bring you back here!

Quick links to each semester at the Mohawk Fennell Campus:

[Link to Fall 2011](#)

Not Active! For reference only!

[Link to Winter 2012](#)

Active for Winter 2012

[Link to Summer 2012](#)

Not Active! For reference only!



Electrical and Computer Engineering Technology
Contact: George Voros
Updated: Jan. 3, 2012



Lab Kits Required for Fall 2011 (Fennell)

Lab Kit Purchase Forms are available outside of E229 where you see this PDF icon. Current Semester Only!

The **Kit Contents** links have detailed kit information!

Common for All Kits					
Course Kit	Kit Contents	Description	Price	HST	Total
↓	↓	↓	↓	↓	↓

Courses at the Fennell Campus

Semester 1 Kits for Programs 260, 536, 537, 552					
ELEC 10087 Engineering Skills I	POWER SUPPLY KIT 1	Power supply project	\$35.40	\$4.60	\$40
	LEADSX4+MCX2	Lead wire, banana plugs, boots, clips	\$22.12	\$2.88	\$25
	SMD SOLDERING	SMT PCB and components	\$1.77	\$0.23	\$2
ELEC 10099 Electricity 1	ELEC 10099 PARTS	Components and hardware	\$2.65	\$0.35	\$3
Semester 1 Common	MULTIMETER	IDEAL 60-341 Multimeter + 500mA fuse	\$53.10	\$6.90	\$60
	BREADBOARD	Solderless Breadboard - 830 tie points	\$4.42	\$0.58	\$5
	HOOK-UP WIRE 5m	Hook-up wire 22 AWG, 10 colours x 50cm	\$0.88	\$0.12	\$1
	WIRE STRIPPER	Adjustable wire stripper	\$3.54	\$0.46	\$4
	DIAGONAL CUTTERS	5" diagonal cutters	\$2.65	\$0.35	\$3
	LONG NOSE PLIERS	5" needle nose pliers	\$2.65	\$0.35	\$3
	SCREWDRIVER	Screwdriver (Electricians & Phillips blade)	\$0.88	\$0.12	\$1
	SAFETY GLASSES	Safety Glasses (CSA Z94.3 certified)	\$4.42	\$0.58	\$5

Semester 3 Kits for Programs 260, 536, 537, 552					
ELEC 10103 Digital Systems	ELEC 10103 PARTS	Components and hardware	\$7.08	\$0.92	\$8
ELEC 10104 Electronic Circuits	ELEC 10104 PARTS	Components and hardware	\$14.16	\$1.84	\$16
ELEC 10103 Digital Systems	ATAVRBFLY	AVR Butterfly (connectors soldered)	\$17.70	\$2.30	\$20
	ATAVRBFLY PARTS	AVR Butterfly components and hardware	\$11.50	\$1.50	\$13
ELEC 10103 Digital Systems	SERIAL CABLE	Serial Cable (DB9F to DB9M Extension)	\$2.65	\$0.35	\$3

Semester 5 Kits for Programs 536					
ELEC 10072 Wireless & Optical Communications	ELEC 10072 PARTS	Components and hardware	\$2.65	\$0.35	\$3

Semester 5 Kits for Programs 537, 552					
ELEC 10072 Wireless & Optical Communications	ELEC 10072 PARTS	Components and hardware	\$2.65	\$0.35	\$3

Chemical Technology

ELEC 10090 Electronics for Technology	ELEC 10090 PARTS	Components and hardware	\$10.62	\$1.38	\$12

Continuing Education at the Fennell Campus

COMP NET20 Networking Basics CCNA1	NETWORK	Hardware	\$4.42	\$0.58	\$5

All kits and pricing are subject to change. **\$0** Indicates that a price has not been set yet.

KITS will be available later in the semester.

Lab Kit Purchase Forms for Fennell Campus are available outside of room E229.



Electrical and Computer Engineering Technology

Contact: George Voros

Updated: Aug. 30, 2011

Lab Kits Required for Winter 2012 (Fennell)



Lab Kit Purchase Forms are available outside of E229 where you see this PDF icon. Current Semester Only!
The **Kit Contents** links have detailed kit information!

Common for All Kits

Course Kit	Kit Contents	Description	Price	HST	Total
↓	↓	↓	↓	↓	↓

Courses at the Fennell Campus

Semester 1 Kits for Programs 260, 536, 537, 552					
ELEC 10087 Engineering Skills I	POWER SUPPLY KIT 1	Power supply project	\$35.40	\$4.60	\$40
	LEADSX4+MCX2	Lead wire, banana plugs, boots, clips	\$23.01	\$2.99	\$26
	SMD SOLDERING	SMT PCB and components	\$1.77	\$0.23	\$2
ELEC 10099 Electricity 1	ELEC 10099 PARTS	Components and hardware	\$2.65	\$0.35	\$3
Semester 1 Common	MULTIMETER	IDEAL 60-341 Multimeter + 500mA fuse	\$53.10	\$6.90	\$60
	BREADBOARD	Solderless Breadboard - 830 tie points	\$4.42	\$0.58	\$5
	HOOK-UP WIRE 5m	Hook-up wire 22 AWG, 10 colours x 50cm	\$0.88	\$0.12	\$1
	WIRE STRIPPER	Adjustable wire stripper	\$3.54	\$0.46	\$4
	DIAGONAL CUTTERS	12 cm diagonal cutters	\$2.65	\$0.35	\$3
	LONG NOSE PLIERS	12 cm needle nose pliers	\$2.65	\$0.35	\$3
	SCREWDRIVER	Screwdriver (Electricians & Phillips blade)	\$0.88	\$0.12	\$1
SAFETY GLASSES	Safety Glasses (CSA Z94.3 certified)	\$4.42	\$0.58	\$5	

Semester 2 Kits for Programs 260, 536, 537, 552					
ELEC 10034 Network Fundamentals	NETWORK	Cable and connectors	\$4.42	\$0.58	\$5
ELEC 10095 Digital Principles	ELEC 10095 PARTS	Components and hardware	\$24.78	\$3.22	\$28
	LOGIC BOARD	Logic Interface Board	\$55.75	\$7.25	\$63
	LOGIC BOARD POWER	5V Power Adaptor for Logic Board	\$6.19	\$0.81	\$7
	LOGIC BOARD CABLES	Cabling for Logic Board	\$13.27	\$1.73	\$15
ELEC 10100 Electronic Devices	ELEC 10100 PARTS	Components and hardware	\$10.62	\$1.38	\$12
	BREADBOARD	Solderless Breadboard - 830 tie points	\$4.42	\$0.58	\$5

Mechanical Engineering Technology - Program 529					
ELEC 10086 Electricity - Mechanical	ELEC 10086/89 PARTS	Components and hardware	\$3.54	\$0.46	\$4
	BREADBOARD	Solderless Breadboard - 830 tie points	\$4.42	\$0.58	\$5

Chemical Engineering Technology - Program 533					
ELEC 10089 Electricity for Technology	ELEC 10086/89 PARTS	Components and hardware	\$3.54	\$0.46	\$4
	BREADBOARD	Solderless Breadboard - 830 tie points	\$4.42	\$0.58	\$5

Pretechnology - Program 168					
ELEC ET024	ELEC ET024 PARTS	Components and hardware	\$2.65	\$0.35	\$3

All kits and pricing are subject to change. **\$0** Indicates that a price has not been set yet.

KITS will be available later in the semester.

Lab Kit Purchase Forms for Fennell Campus are available outside of room E229.



Electrical and Computer Engineering Technology
Contact: George Voros
Updated: Jan. 3, 2012

Lab Kits Required for Summer 2012 (Fennell)



Lab Kit Purchase Forms are available outside of E229 where you see this PDF icon. Current Semester Only!

The **Kit Contents** links have detailed kit information!

Common for All Kits

Course Kit	Kit Contents	Description	Price	HST	Total
↓	↓	↓	↓	↓	↓

Courses at the Fennell Campus

Semester 2 Kits for Programs 260, 536, 537, 552

ELEC 10034 Network Fundamentals	NETWORK	Cable and connectors	\$4.42	\$0.58	\$5
ELEC 10095 Digital Principles	ELEC 10095 PARTS	Components and hardware	\$24.78	\$3.22	\$28
	LOGIC BOARD	Logic Interface Board	\$55.75	\$7.25	\$63
	LOGIC BOARD POWER	5V Power Adaptor for Logic Board	\$6.19	\$0.81	\$7
	LOGIC BOARD CABLES	Cabling for Logic Board	\$13.27	\$1.73	\$15
ELEC 10100 Electronic Devices	ELEC 10100 PARTS	Components and hardware	\$10.62	\$1.38	\$12
	BREADBOARD	Solderless Breadboard - 830 tie points	\$4.42	\$0.58	\$5

Pretechnology - Program 168

ELEC ET024	ELEC ET024 PARTS	Components and hardware	\$2.65	\$0.35	\$3
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- All kits and pricing are subject to change. **\$0** Indicates that a price has not been set yet.
- KITS will be available later in the semester.**
- Lab Kit Purchase Forms for Fennell Campus are available at room E229.



Electrical and Computer Engineering Technology
 Contact: George Voros
 Updated: Jan. 3, 2012

[Electrotechnology Lab Kits](#)

ELEC_10099_PARTS_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	RES			8.2 Ω $\frac{1}{2}$ W
2	1	RES			33 Ω $\frac{1}{2}$ W
3	1	RES			220 Ω $\frac{1}{2}$ W
4	1	RES			330 Ω $\frac{1}{2}$ W
5	1	RES			360 Ω $\frac{1}{2}$ W
6	1	RES			470 Ω $\frac{1}{2}$ W
7	1	RES			560 Ω $\frac{1}{2}$ W
8	1	RES			1.0 k Ω $\frac{1}{2}$ W 1%
9	1	RES			1.0 k Ω $\frac{1}{2}$ W 5%
10	1	RES			1.0 k Ω $\frac{1}{2}$ W 5% metal film
11	1	RES			1.0 k Ω $\frac{1}{2}$ W 10%
12	1	RES			1.2 k Ω $\frac{1}{2}$ W
13	1	RES			2.2 k Ω $\frac{1}{2}$ W
14	1	RES			2.7 k Ω $\frac{1}{2}$ W
15	1	RES			3.3 k Ω $\frac{1}{2}$ W
16	1	RES			4.7 k Ω $\frac{1}{2}$ W
17	1	RES			5.6 k Ω $\frac{1}{2}$ W
18	1	RES			10 k Ω $\frac{1}{2}$ W
19	1	RES			22 k Ω $\frac{1}{2}$ W
20	1	RES			47 k Ω $\frac{1}{2}$ W
21	1	RES			68 k Ω $\frac{1}{2}$ W
22	1	RES			150 k Ω $\frac{1}{2}$ W
23	1	RES			2.2 M Ω $\frac{1}{2}$ W
24	1	RES			10 M Ω $\frac{1}{2}$ W
25	1	RES	3386R-1-502	BOURNS	POTENTIOMETER 5 k Ω $\frac{1}{2}$ W
26	1	HRD	ABRA	ABRA	ABRA Resistor Colour Code Chart

Note: All resistors are 1/2 W 5% carbon film resistors unless otherwise noted.

Revised by:	Kathy Usik
Date:	June 1, 2010
Status:	Updated for Fall 2011

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POWER_SUPPLY_1_PARTS_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	3	CAP	368-45104	PHILIPS	0.1 μ F 200V
2	3	CAP	021-17102	PHILIPS	1000 μ F ELECT 40V (AXIAL)
3	1	HRD	722A	Switchcraft Inc.	MINI POWER JACKS 2.1mm
4	1	HRD	AG-3060Y	ABRA	Binding Post 5 Way Yellow
5	1	HRD	AG-3060W	ABRA	Binding Post 5 Way White
6	1	HRD	AG-3060B	ABRA	Binding Post 5 Way Black
7	1	HRD	AG-3060BL	ABRA	Binding Post 5 Way Blue
8	1	HRD	AG-3060R	ABRA	Binding Post 5 Way Red
9	4	HRD	6-32 Screw		6-32 1 1/4" Machine Screw Round Robertson
10	4	HRD	6-32 Nut		6/32 Nut Hex
11	1	HRD	426NS	M.G.CHEMICAL	SOLDER WICK (roll 1.5metre)
12	4	HRD	896	KEYSTONE	SPACER NYLON TUBE 3/4"*1/4
13	1	LIN	7912		REGULATOR 12 VOLTS NEGATIVE
14	1	LIN	7812		REGULATOR 12 VOLTS POSITIVE
15	1	LIN	7805		REGULATOR 5 VOLTS POSITIVE
16	1	RES	PR02J 8R2		8.2 Ω 2W
17	10	SEM	1N4004		DIODE GENERAL PURPOSE 1 A
18	1	SEM	RXE 050	RAYCHEM	POLYSWITCH 0.5A
19	4	HRD	54-885-0	MODE	FEET STICK-ON

BULK ITEMS					
20	1	HRD	1591ESBK	HAMMOND	Box Plastic - 190.5mm x 109.22mm x 55.88mm (7.5" x 4.3" x 2.2")
21	1	HRD	68-121A-1	MODE	AC Adapter 12VAC 1A
22	1	HRD	PCB	Precision Circuits	Printed Circuit Board (Custom) Pre Drilled
24	60 cm	HRD			#22 AWG wire stranded Yellow
25	30 cm	HRD			#22 AWG wire stranded White
26	30 cm	HRD			#22 AWG wire stranded Black
27	30 cm	HRD			#22 AWG wire stranded Blue
28	30 cm	HRD			#22 AWG wire stranded Red
29		HRD		M.G. Chemicals	#4900 Solder ROHS

Revised by:	Jim Wilks
Date:	June 10, 2010
Status:	No change from Fall 2010

BULK ITEMS	Distributed with the kits or provided in the lab.
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LEADSX4+MCX2_F12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	4	HRD	BU-60	MUELLER	ALLIGATOR CLIP
2	2	HRD	BU-62 BLACK	MUELLER	ALLIGATOR SAFETY BOOT BLACK
3	2	HRD	BU-62 RED	MUELLER	ALLIGATOR SAFETY BOOT RED
4	10	HRD	1825-0	POMONA	STACKABLE BANANA PLUG BLACK
5	1	HRD	4555-0	POMONA	MINIGRABBER CLIP RED
6	1	HRD	4555-1	POMONA	MINIGRABBER CLIP BLACK

BULK ITEMS					
5	160 cm	HRD	2722/16 BLACK	Daburn	WIRE TEST LEAD PLAST 16AWG BLACK
6	160 cm	HRD	2722/16 RED	Daburn	WIRE TEST LEAD PLAST 16AWG RED
7	160 cm	HRD	2722/16 BLUE	Daburn	WIRE TEST LEAD PLAST 16AWG BLUE

Revised by:	Jim Wilks
Date:	November 19, 2010
Status:	No change from Winter 2011

BULK ITEMS	Provided in the lab.
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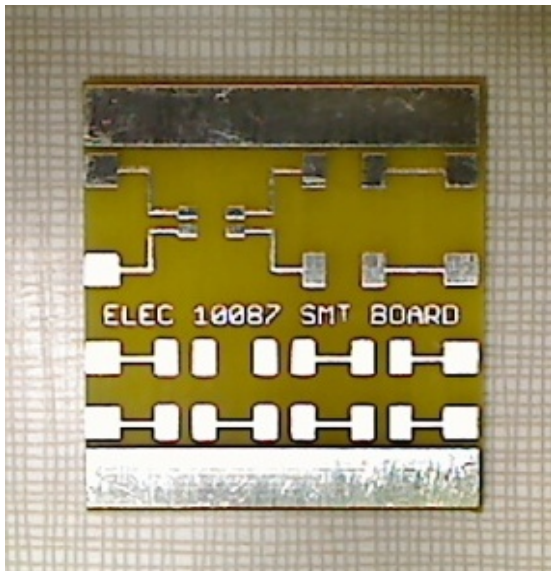
[Winter 2012](#)

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SMD_SOLDERING					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	LED	HSMF-C155	Avago	LED BICOLOR GN/HER DIFF 1210 SMD
2	2	RES	CRCW2010510RJNEF	VISHAYDALE	510 OHM 3/4W 5% 2010 SMD
3	6	RES	NA	ANY	ANY VALUE SIZE 1210 RES SMD
4	1	PCB	SMD_01	Custom	CUSTOM SMD PCB (See picture)

Revised by:	Jim Wilks
Date:	June, 2010
Status:	No change from Fall 2010

CUSTOM SMD PCB



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METER_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	HRD	61-340	IDEAL INDUSTRIES	Ideal 61-340 Test-Pro Multimeter
2	1	HRD	F-340	Ideal	500mA/500V (6.35 x 32mm)

Revised by:	Brian Stefanchuck
Date:	June 10, 2010
Status:	No change from Fall 2010

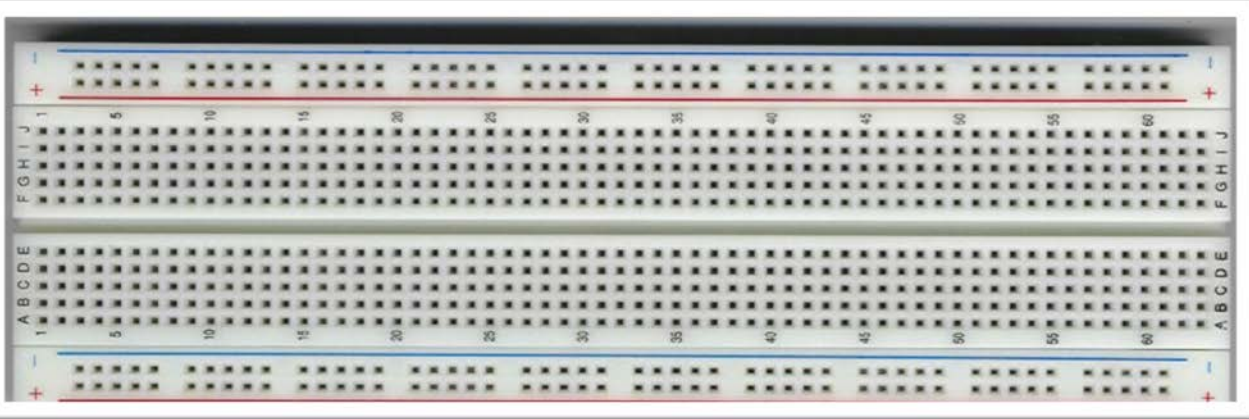


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BREADBOARD



Status:	No change from Fall 2010
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HOOK-UP WIRE 5m



10 colours X 50 cm lengths

22 AWG insulated tinned solid copper wire

CSA TR-64

Status:

New for Fall 2011

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WIRE STRIPPER



Status:	No change from Fall 2010
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DIAGONAL CUTTERS



Status:	No change from Fall 2010
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LONG NOSE PLIERS



Status:	No change from Fall 2010
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SAFETY GLASSES

Safety Glasses are required as stated in the "**Electrotechnology Safety Eyewear Requirement**" document.



Elemental™ 'Faze' glasses feature one-piece, scratch-resistant, wrap-around polycarbonate lenses for side protection against flying debris while allowing unobstructed peripheral vision. Clear lens, ultra-flexible, lightweight frames provide a snug fit, held in place securely with cool-looking contrasting rubberized head grips, for a comfort that lets you forget you're wearing them. Soft rubber nose piece adjusts naturally, so glasses rest comfortably, and are less noticeable. Sporty styling that employees will love to wear. **CSA Compliant. Meets ANSI Z87.1**

Status:	No change from Fall 2010
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ELEC 10103_PARTS_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	IC	DAC0800LCN	NATIONAL SEMI	8-Bit Digital-to-Analog Converters
2	2	LIN	741		OP AMP
3	1	LIN	311		COMPARATOR
4	1	LOG	74HCT00		NAND GATE
5	1	LOG	74HCT93		4-BIT BINARY COUNTER
6	1	LOG	74HCT194		4-BIT BIDIRECTIONAL SHIFT REGISTER
7	4	RES	SFR25HJ 470R		470 Ω $\frac{1}{2}$ W
8	3	RES	SFR25HJ 1K		1.0 k Ω $\frac{1}{2}$ W
9	6	RES	SFR25HJ 2K		2.0 k Ω $\frac{1}{2}$ W
10	4	RES	SFR25HJ 10K		10 k Ω $\frac{1}{2}$ W
11	4	SEM	LED		RED LED 3mm

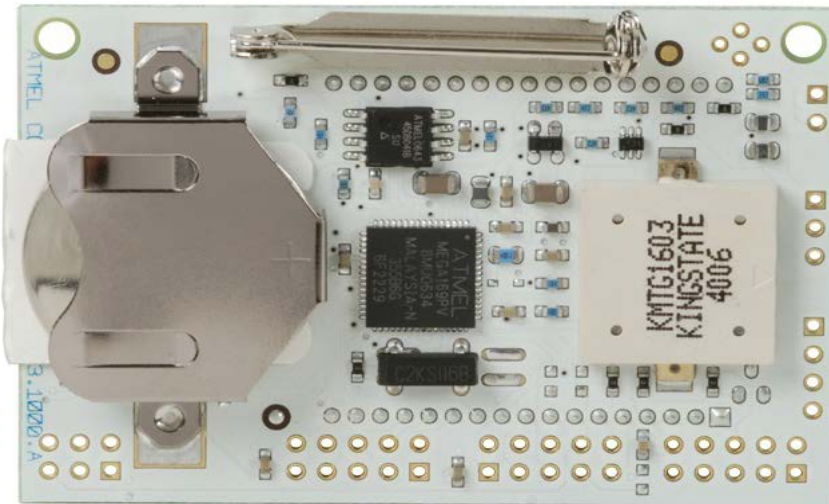
Revised by:	Brian Stefanchuk
Date:	August 13, 2009
Status:	No change from Fall 2010

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The AVR Butterfly will be populated with male headers soldered to the board.



ATAVRBFLY					
Item #	Quantity	Type	Part Number	Manufacturer	Description
0	1	KIT	ATAVRBFLY	ATMEL	AVR Butterfly Evaluation Kit (Soldered)
Status:		No change from Fall 2010			

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ATAVRBFLY_PARTS_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
					DS = Double Sided, M = Male, F= Female
1	1	HRD	1065	Pololu	0.100" (2.54 mm) Breakaway M Header: 1x40-Pin, Straight, DS
2	10	HRD	1814	Pololu	Wires with Pre-crimped Terminals F-F 6" (Any same colour)
3	10	HRD	1814	Pololu	Wires with Pre-crimped Terminals F-F 6" (Any same colour)
4	2	HRD	1812	Pololu	Wires with Pre-crimped Terminals F-F 6" Red
5	2	HRD	1810	Pololu	Wires with Pre-crimped Terminals F-F 6" Black
6	25	HRD	1900	Pololu	0.1" (2.54mm) Crimp Connector Housing: 1x1-Pin
7	4	HRD	1901	Pololu	0.1" (2.54mm) Crimp Connector Housing: 1x2-Pin
8	2	HRD	1907	Pololu	0.1" (2.54mm) Crimp Connector Housing: 1x8-Pin
9	2	HRD	1913	Pololu	0.1" (2.54mm) Crimp Connector Housing: 2x5-Pin
10	2	HRD	Stock	Donated	PB NO switch
11	1	HRD	Custom	Tech Arts	DB9 F connector to 1X3 F connector 15 cm
12	1	HRD	36-101-0	Mode	Long Handled Shunt (Jumper)

LINKS	
Overview of housings with pre-crimped terminals	http://www.pololu.com/catalog/product/1907

Status:	No change from Fall 2010
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DB9 Female to DB9 Male Extension Cable



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ELEC_10104_PARTS_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	3	CAP	681-58101		100 pF 100V
2	1	CAP			2.2 nF 100V
3	2	CAP			0.01 μ F 100V
4	1	CAP			0.022 μ F 100V
5	1	CAP	368-45104	PHILIPS	0.1 μ F 100V
6	1	CAP	368-45224	PHILIPS	0.22 μ F 100V
7	1	CAP	030-38108	PHILIPS	1.0 μ F ELECTROLYTIC 40V (AXIAL)
8	1	CAP			4.7 μ F ELECTROLYTIC 40V (AXIAL)
9	2	CAP	030-37109	PHILIPS	10 μ F ELECTROLYTIC 40V (AXIAL)
10	1	CAP	031-37101	PHILIPS	100 μ F ELECTROLYTIC 40V (AXIAL)
11	1	CAP	031-37471	PHILIPS	470 μ F ELECTROLYTIC 40V (AXIAL)
12	2	CAP	021-16102	PHILIPS	1000 μ F ELECT 40V (AXIAL)
13	1	IND			10 mH INDUCTOR
14	2	LIN	741		OP AMP
15	1	LIN	555		TIMER
16	1	LIN	LM317 TO-220		VARIABLE VOLTAGE REGULATOR
17	1	HRD	NUT AND BOLT		FOR LM317 AND HEAT SINK
18	1	HRD	HEAT SINK TO-220		FOR LM317
19	1	RES	SFR25HJ 10R		10 Ω $\frac{1}{2}$ W
20	1	RES	SFR25HJ 47R		47 Ω $\frac{1}{2}$ W
21	1	RES	SFR25HJ 100R		100 Ω $\frac{1}{2}$ W
22	1	RES	SFR25HJ 220R		220 Ω $\frac{1}{2}$ W
23	1	RES	SFR25HJ 330R		330 Ω $\frac{1}{2}$ W
24	1	RES	SFR25HJ 470R		470 Ω $\frac{1}{2}$ W
25	1	RES	SFR25HJ 560R		560 Ω $\frac{1}{2}$ W
26	2	RES	SFR25HJ 1K		1.0 k Ω $\frac{1}{2}$ W
27	1	RES	SFR25HJ 1K1		1.1 k Ω $\frac{1}{2}$ W
28	1	RES	SFR25HJ 1K2		1.2 k Ω $\frac{1}{2}$ W
29	1	RES	SFR25HJ 2K2		2.2 k Ω $\frac{1}{2}$ W
30	1	RES	SFR25HJ 3K3		3.3 k Ω $\frac{1}{2}$ W
31	1	RES	SFR25HJ 3K9		3.9 k Ω $\frac{1}{2}$ W
32	3	RES	SFR25HJ 10K		10 k Ω $\frac{1}{2}$ W
33	2	RES	SFR25HJ 15K		15 k Ω $\frac{1}{2}$ W
34	1	RES	SFR25HJ 22K		22 k Ω $\frac{1}{2}$ W
35	1	RES	SFR25HJ 27K		27 k Ω $\frac{1}{2}$ W
36	1	RES	SFR25HJ 30K		30 k Ω $\frac{1}{2}$ W
37	1	RES	SFR25HJ 33K		33 k Ω $\frac{1}{2}$ W
38	1	RES	SFR25HJ 39K		39 k Ω $\frac{1}{2}$ W
39	1	RES	SFR25HJ 47K		47 k Ω $\frac{1}{2}$ W
40	1	RES	SFR25HJ 68K		68 k Ω $\frac{1}{2}$ W
41	1	RES	SFR25HJ 82K		82 k Ω $\frac{1}{2}$ W
42	1	RES	SFR25HJ 100K		100 k Ω $\frac{1}{2}$ W
43	1	RES	SFR25HJ 220K		220 k Ω $\frac{1}{2}$ W
44	1	RES	SFR25HJ 470K		470 k Ω $\frac{1}{2}$ W
45	1	RES	SFR25HJ 1M		1.0 M Ω $\frac{1}{2}$ W
46	1	RES	3386R-1-104	BOURNS	POTENTIOMETER 100 k Ω $\frac{1}{2}$ W
47	1	RES	3386R-1-103	BOURNS	POTENTIOMETER 10 k Ω $\frac{1}{2}$ W
48	1	RES	3386R-1-502	BOURNS	POTENTIOMETER 5 k Ω $\frac{1}{2}$ W

49	1	RES	3386R-1-102	BOURNS	POTENTIOMETER 1 k Ω ½W
50	1	SEM	LED-5R		LED RED
51	1	SEM	C106D1	MOTOROLA	SCR 400V 4A
52	2	SEM	2N5458		N-CHANNEL JFET
53	1	SEM	2N3904		TRANSISTOR NPN BJT
54	2	SEM	1N4148		DIODE
55	4	SEM	1N4001		DIODE

Revised by:	Kathy Usik
Date:	June 21, 2011
Status:	New for Fall 2011

Supplied by Mohawk College!

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ELEC_10072_F10					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1		LNA2603F	Panasonic	IR LED 940NM
2	1		PNZ335	Panasonic	PIN PHOTODIODE 850NM
3	1		LTL-1CHEE	Lite-On Inc	LED 3MM HI-EFF RED
4	1		LTL-1CHYE	Lite-On Inc	LED 3MM YELLOW TRANSPARENT
5	1		LTL-4232N	Lite-On Inc	LED 3MM GREEN TRANSPARENT

Revised by:	Brian Stefanchuk
Date:	May. 11, 2010

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ELEC_10090_PARTS_F11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	2	CAP	368-45104	PHILIPS	0.10 μ F 200V
2	2	CAP	030-37109	PHILIPS	10 μ F ELECT 40V (AXIAL)
3	2	CAP	031-37101	PHILIPS	100 μ F ELECT 40V (AXIAL)
4	5	LIN	741		OP AMP
5	1	LOG	74HCT00		NAND GATE
6	1	LOG	74HCT02		NOR GATE
7	1	LOG	74HCT04		INVERTER
8	1	LOG	74HCT08		AND GATE
9	1	LOG	74HCT32		OR GATE
10	2	RES			100 Ω $\frac{1}{2}$ W
11	2	RES			220 Ω $\frac{1}{2}$ W
12	2	RES			270 Ω $\frac{1}{2}$ W
13	2	RES			1 k Ω $\frac{1}{2}$ W
14	2	RES			2 k Ω $\frac{1}{2}$ W
15	2	RES			4.7 k Ω $\frac{1}{2}$ W
16	1	RES			9.1 k Ω $\frac{1}{2}$ W
17	5	RES			10 k Ω $\frac{1}{2}$ W
18	2	RES			22 k Ω $\frac{1}{2}$ W
19	1	RES	3386R-1-103	BOURNS	POTENTIOMETER 10 k Ω $\frac{1}{2}$ W
20	1	RES	3386R-1-104	BOURNS	POTENTIOMETER 100 k Ω $\frac{1}{2}$ W
21	5	SEM	1N4004		DIODE GEN PURPOSE 1 A
22	1	SEM	DF01M	Diodes Inc	RECTIFIER BRIDGE 100V 1A
23	2	SEM	LED-3G		LED GREEN
24	2	SEM	LED-3R		LED RED
25	1	SEM	1N4739		DIODE ZENER 9.1V

Notes:	All resistors are 1/2 W carbon film resistors.
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Revised by:	Mike Edwards
Date:	June 1, 2010
Status:	No change from Fall 2010

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NETWORK_CABLE_W12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	2m	HRD	Assorted	Tomauri	CAT6 CABLE BLUE SOLID
2	3m	HRD	Assorted	Tomauri	CAT6 CABLE RED SOLID
3	7	HRD	7204	Tomauri	CAT6 RJ45 CONNECTOR 8-WIRE SOLID

Revised by:	Sabu Joseph
Date:	Dec. 1, 2011
Status:	Winter 2012 may have assorted cable colours

NOTE: Some Kits may have different colours!

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ELEC_10095_PARTS_W11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	CAP	368-55472	PHILIPS	4700 pF 200V
2	1	CAP	368-45104	PHILIPS	0.1 μF 200V
3	1	CAP	031-37101	PHILIPS	100 μF ELECT 40V (AXIAL)
4	1	HRD	76SB08	GRAYHILL	SWITCH 8 POSITION DIP
5	2	HRD	EVQPVF05K		SPST N.O. M.C. SWITCH
6	1	LIN	LM555		555 TIMER
7	2	LOG	74HCT00		NAND GATE
8	1	LOG	74HCT02		NOR GATE
9	1	LOG	74HCT04		INVERTER
10	1	LOG	74HCT08		AND GATE
11	1	LOG	74HCT10		3-INPUT NAND
12	1	LOG	74HCT32		OR GATE
13	1	LOG	74HCT74		D FLIP FLOP
14	1	LOG	74HCT76		J.K. FLIP FLOP
15	1	LOG	74HCT283		FULL ADDER
16	1	LOG	74HCT85		4-BIT MAG COMPARATOR
17	1	LOG	74HCT86		EX-OR GATE
18	1	LOG	SN74HC266N	Texas	EX-NOR GATE
19	1	LOG	74HCT93		4-BIT BINARY COUNTER
20	1	LOG	74HCT42 or 154		1 OF 16 DECODE/DEMUX
21	1	LOG	74HCT139		DUAL 1 OF 4 DECODE/DEMUX
22	1	LOG	74HCT151		8-INPUT MULTIPLEXER
23	1	LOG	74LS247		BCD 7-SEG DECODER
24	1	RES	4610X-101-102		RES NET SIP BUSS 1K Ω 1/8 W
25	1	RES	4610X-101-103		RES NET SIP BUSS 10K Ω 1/8 W
26	2	RES	SFR25HJ 330R	PHILIPS	330 Ω ½W
27	10	RES	SFR25HJ 470R	PHILIPS	470 Ω ½W
28	5	RES	SFR25HJ 2K7	PHILIPS	2.7 kΩ ½W
29	1	RES	3386R-1-102	BOURNS	POTENTIOMETER 1 kΩ ½W
30	1	SEM	LTS-4802BJR-H1		LED 7-SEG 1DGT SUPER RED CA
31	1	SEM	LTA-1000HR		LED BAR GRAPH 10-SEGMENT RED
32	2	SEM	LED-5G		LED GREEN
33	2	SEM	LED-5R		LED RED
34	2	SEM	LED-5Y		LED YELLOW

NEW

Revised by:	Bernie Habicht
Date:	Nov. 5, 2010

Supplied By College

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ELEC_10100_PARTS_W12						
Item #	Quantity	Type	Part Number	Manufacturer	Description	
1	1	CAP	368-45104	PHILIPS	0.10 μ F 200V	
2	3	CAP	030-37109	PHILIPS	10 μ F ELECT 40V (AXIAL)	
3	2	CAP	021-37479	PHILIPS	47 μ F ELECT 40V (AXIAL)	
4	1	CAP	031-37101	PHILIPS	100 μ F ELECT 40V (AXIAL)	
5	1	RES			50 Ω 1/2W	New
6	1	RES			100 Ω 1/2W	
7	1	RES			150 Ω 1/2W	
8	1	RES			220 Ω 1/2W	
9	1	RES			330 Ω 1/2W	
10	1	RES			470 Ω 1/2W	
11	1	RES			750 Ω 1/2W	
12	2	RES			1.0 k Ω 1/2W	
13	1	RES			2.0 k Ω 1/2W	
14	3	RES			2.2 k Ω 1/2W	
15	1	RES			3.3 k Ω 1/2W	
16	1	RES			4.7 k Ω 1/2W	
17	3	RES			5.6 kΩ 1/2W	New
18	1	RES			6.8 k Ω 1/2W	
19	2	RES			10 k Ω 1/2W	
20	2	RES			22 k Ω 1/2W	
21	1	RES			33 k Ω 1/2W	
22	1	RES			39 kΩ 1/2W	New
23	2	RES			75 kΩ 1/2W	
24	2	RES			100 k Ω 1/2W	
25	1	RES			330 k Ω 1/2W	
26	1	RES			360 k Ω 1/2W	
27	1	RES			1 M Ω 1/2W	
28	2	RES			10 MΩ 1/2W	New
29	1	RES	3386R-1-102	BOURNS	POTENTIOMETER 1 k Ω 1/2W	
30	4	SEM	1N4004		DIODE GEN PURPOSE 1 A	
31	2	SEM	1N914		DIODE SIGNAL	
32	2	SEM	1N4733		DIODE ZENER 5.1V	
33	1	SEM	LED-5G		LED GREEN	
34	1	SEM	LED-5R		LED RED	
35	2	SEM	2N5458		N-CHANNEL FET	
36	3	SEM	2N3904		TRANSISTOR NPN BJT	

Notes: All resistors are 1/2 W carbon film resistors.

Revised by:	Kathy Usik
Date:	November 4, 2011

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ELEC_10101_PARTS_W11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1					
2					
3					
4					
5					

Revised by:	Jim Wilks
Date:	Nov. 17, 2010

Comments:	Components will be supplied to students in the lab.
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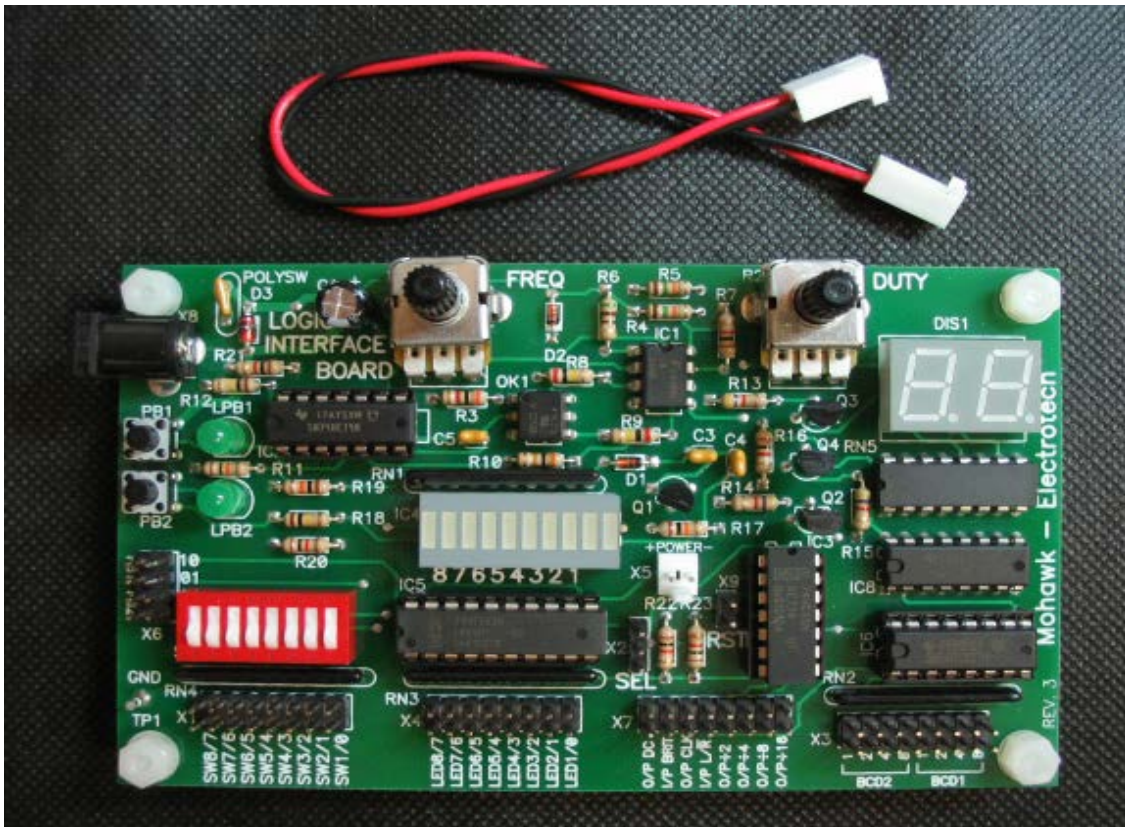
[Winter 2012](#)

[Electrotechnology Lab Kits](#)

LOGIC_BOARD_W12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	HRD	MCLIB REV 3	Technological Arts	See Picture
2	1	HRD	1460	Pololu	Power adapter, 5VDC, 1A, center (+)

Revised by:	Bernie Habich
Date:	Nov. 1, 2011

MCLIB Mohawk College Logic Board Rev. 3



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LOGIC_BOARD_POWER_W12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	HRD	1460	Pololu	Power adapter, 5VDC, 1A, center (+)

Revised by:	Bernie Habich
Date:	June 1, 2011

Wall power adapter: 5VDC, 1A, 5.5x2.1mm barrel jack, center-positive. (2 views)



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LOGIC_BOARD_CABLES_W12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	HRD	1800	Pololu	50 Wires with Pre-crimped Terminals - 10 Colours F-F 6"
2	2	HRD	1065	Pololu	0.1" Breakaway M Header: 1x40, Straight, Double Sided
3	1	HRD	1901	Pololu	0.1" Crimp Connector Housing: 1x2-Pin 25-Pack
4	2	HRD	1900	Pololu	0.1" Crimp Connector Housing: 1x1-Pin 25-Pack
5	1	HRD	1903	Pololu	0.1" Crimp Connector Housing: 1x4-Pin 10-Pack
6	4	HRD	36-101-0	MODE	Black Long Handle Shunt

Revised by:	Bernie Habich
Date:	June 1, 2011

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ELEC_10086_10089_PARTS_W12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	RES			8.2 Ω 1/2W
2	1	RES			33 Ω 1/2W
3	1	RES			100 Ω 1/2W
4	1	RES			220 Ω 1/2W
5	1	RES			330 Ω 1/2W
6	1	RES			360 Ω 1/2W
7	1	RES			470 Ω 1/2W
8	1	RES			560 Ω 1/2W
9	1	RES			680 Ω 1/2W
10	1	RES			750 Ω 1/2W
11	1	RES			1.0 k Ω 1/2W
12	1	RES			1.2 k Ω 1/2W
13	1	RES			1.8 k Ω 1/2W
14	1	RES			2.0 k Ω 1/2W
15	1	RES			2.2 k Ω 1/2W
16	1	RES			2.7 k Ω 1/2W
17	1	RES			3.3 k Ω 1/2W
18	1	RES			4.7 k Ω 1/2W
19	1	RES			5.6 k Ω 1/2W
20	1	RES			10 k Ω 1/2W
21	1	RES			22 k Ω 1/2W
22	1	RES			47 k Ω 1/2W
23	1	RES			68 k Ω 1/2W
24	1	RES			100 k Ω 1/2W
25	1	RES			150 k Ω 1/2W
26	1	RES			2.2 M Ω 1/2W
27	1	RES	3386R-1-502	BOURNS	POTENTIOMETER 5 k Ω 1/2W
28	1	SEM	1N4004		DIODE GENERAL PURPOSE 1 AMP
29	1	SEM	LED-5R		LED RED
30	1	SEM	LED-5G		LED GREEN
31	1	SEM	LED-5Y		LED YELLOW
32	1	HRD	ABRA	ABRA	ABRA Resistor Colour Code Chart

New
New
New

Note: All resistors are 1/2 W carbon film resistors.

Revised by:	Brian Stefanchuk
Date:	November 19, 2010

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ELEC_ET024_PARTS_W12					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	CAP	031-37101	PHILIPS	100 μ F ELECT 40V (AXIAL)
2	1	RES			8.2 Ω $\frac{1}{2}$ W
3	1	RES			33 Ω $\frac{1}{2}$ W
4	1	RES			100 Ω $\frac{1}{2}$ W
5	1	RES			220 Ω $\frac{1}{2}$ W
6	1	RES			330 Ω $\frac{1}{2}$ W
7	1	RES			360 Ω $\frac{1}{2}$ W
8	1	RES			470 Ω $\frac{1}{2}$ W
9	4	RES			560 Ω $\frac{1}{2}$ W
10	4	RES			1 k Ω $\frac{1}{2}$ W
11	1	RES			1.2 k Ω $\frac{1}{2}$ W
12	1	RES			5.6 k Ω $\frac{1}{2}$ W
13	1	RES			10 k Ω $\frac{1}{2}$ W
14	1	RES			22 k Ω $\frac{1}{2}$ W
15	1	RES			47 k Ω $\frac{1}{2}$ W
16	1	RES			68 k Ω $\frac{1}{2}$ W
17	1	RES			150 k Ω $\frac{1}{2}$ W
18	1	RES			2.2 M Ω $\frac{1}{2}$ W
19	1	RES			3.3 M Ω $\frac{1}{2}$ W
20	2	SEM	LED-5R		LED RED
21	1	SEM	LED-5G		LED GREEN
22	4	SEM	1N4004		DIODE GEN PURPOSE 1 AMP
23	1				ABRA Resistor colour code chart

Note: All resistors are 1/2 W carbon film resistors.

Revised by:	Martin Weddum
Date:	Nov. 16, 2008

Comment:	No change from ELEC_ET024_PARTS_F09
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ELEC10057_PARTS_F09					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	CAP	368-55103	PHILIPS	0.010 μ F 200V
2	1	CAP	368-25105	PHILIPS	1.0 μ F 100V
3	4	HRD	EVQPVF05K	OMRON	SPST N.O. M.C. SWITCH
4	1	IC	LM324		OPERATIONAL AMPLIFIER QUAD
5	1	IC	DAC08CN		D/A CONVERTER
6	2	IC	MC3479	MOTOROLA	IC DRIVER STEPPER MOTOR
7	1	LOG	74HC574		LATCH
8	8	RES			680 Ω $\frac{1}{2}$ W or 720 Ω $\frac{1}{2}$ W
9	8	RES			1.0 k Ω $\frac{1}{2}$ W
10	2	RES			2.0 k Ω $\frac{1}{2}$ W
11	2	RES			86 k Ω $\frac{1}{2}$ W
12	4	SEM	1N4004		DIODE GEN PURPOSE 1 A
13	2	SEM	1N4728		DIODE ZENER 3.3V
14	2	SEM	2N4400		TRANSISTOR NPN BJT
15	2	SEM	2N4402		TRANSISTOR PNP BJT
16	4	SEM	2N5306	Fairchild	TRANSISTOR NPN DARLINGTON
	SUB:	SEM	MPSA14	Fairchild	TRANSISTOR NPN DARLINGTON
17	1	SEM	LTS-6780R		7 SEG LED-COMMON CATHODE
18	1	SEM	LED-3R		LED RED
19	1	SEM	Surplus	Surplus	IR RECEIVER

Revised by:	Brian Stefanchuk
Date:	October 21, 2009

Use part from previous semester.

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Blank					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Revised by:	
Date:	

Additional Materials to be Provided by Instructor					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1					
2					
3					

[Electrotechnology Lab Kits](#)

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Please Recycle

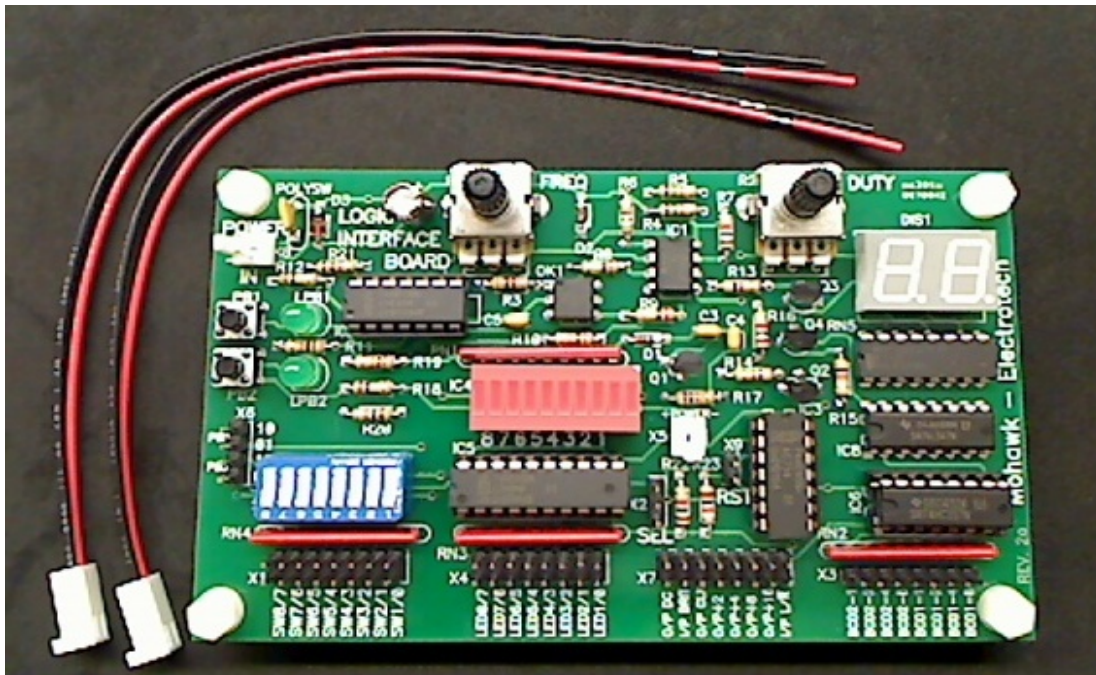
... all of the packaging from your kits is a good start!



LOGIC_BOARD_W11					
Item #	Quantity	Type	Part Number	Manufacturer	Description
1	1	HRD	MCLIB V3	Technological Arts	See Picture

Revised by:	Bernie Habich
Date:	Dec. 2010

MCLIB Mohawk College Logic Board



POWER 5V + CABLE W11

