

Rainbowkits.com LLC

2238 West US Highway 36 - Danville IN 46122
 (317) 745 5602 - Fax (317) 745 5604 - www.rainbowkits.com

Many of our kits are available completely built.

BLINKY LIGHTS

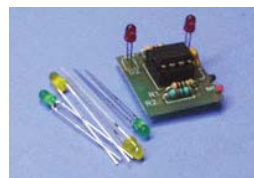


This kit is perfect for kid toys, and model trains. Add a box, sit it on the dash of your car, use it as an auto burglar alarm. Comes with 2 5mm LEDs that alternately flash. Power requirement 6 to 15v DC.

SIZE: .75" x 1"

RED LED's RB-3 KIT **\$3.95**
 GREEN LED's GB-3 KIT **\$3.95**

MINI BLINKY LIGHTS

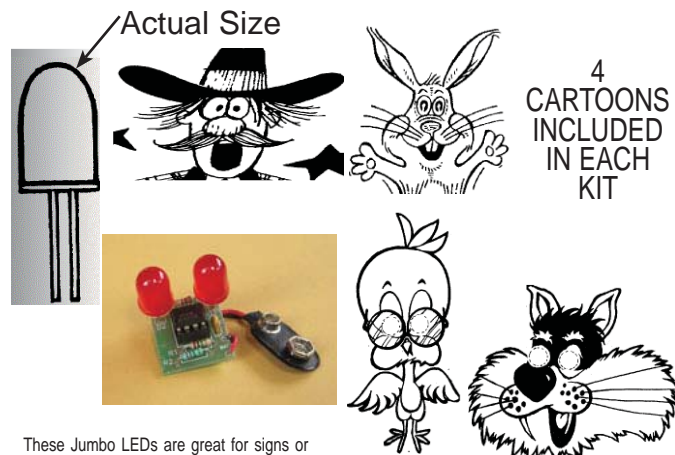


Same as above but it has 3mm LED's. Comes with 2 Red, 2 Green and 2 Yellow LED's. You can mix or match the colors. Power requirement 6 to 15v DC.

SIZE: .75" x 1"

MB-3 KIT **\$3.95**

JUMBO BLINKY LIGHTS



These Jumbo LEDs are great for signs or as attention getters. Comes with 2 jumbo alternate flashing LEDs. Power requirement 6 to 15 volts DC. The kit comes with 4 cartoons designed to slip easily over the LEDs. PCB Board SIZE: .75" x 1"

Red DJRB-3 KIT **\$5.95**
 Green DJGB-3 KIT **\$5.95**

LASER CHALLENGE



Great game for the Laser Pointer

Sit your target across the room or pin it to your chest. You can sit it anywhere up to 25 yards. Use the laser pointer to shoot the target and the alarm goes off. Fun for kids and adults, great for laser tag fun. Power requirement: 9v battery PCB size: 1.4" x 2"

LAS-1 KIT **\$14.95**

STEREO AMPLIFIER



Listen through walls, hear conversations across the room. Add a parabolic reflector and hear blocks away. Makes an ultra sensitive intercom. This is a good amplifier to boost the sound from your portable audio player. You supply the speakers or headset.

Output Power: 1 Watt Power Requirement 5 to 12v DC.
 PC Board SIZE: 2.25" x 2.75"

EBST-11 KIT **\$12.95**

NIGHT CRICKET



A Cricket, gets in your house and drives you crazy until you find it

Sneak this little NIGHT CRICKET into someone's bedroom, or cozy little nook, when night falls the fun begins. It's like a bad dream the lights go out and the cricket starts chirping, turn the lights on to find the varmint and the chirping stops. It will drive someone nuts! Small enough to hide most anywhere. You may want to get more than one. PCB size: 2.75" x 1.2"

NC-1 KIT **\$14.95**

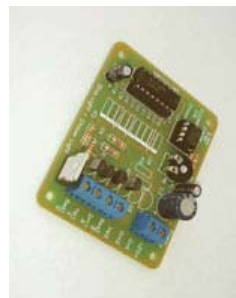
THE MIGHTY WIZARD



You can throw your old Ouija board away and come into the computer age. Use your inner feelings to control THE MIGHTY WIZARD. Touch your fingers to the pads and the 4 jumbo leds flash randomly till you release your fingers. One of the leds will stay lit. We supply 6 overlays, each a different game. Let your Bio-rhythm control your destiny. Fun to build and play for the whole family. Power requirements 9v battery PCB size: 2" x 3" Game Size: 5.5" x 7.75"

MW-1 KIT **\$18.95**

CHASER LIGHT KIT



Use this kit like a theatre marquee. Every fourth LED chases around the display to give you a dazzling effect. You can use up to 40 LED's. Only your imagination limits the possibilities. We supply 16 RED LED's. PCB Board size: 2.25" x 2.75" Power Requirement: 7.5 to 15 VDC

CL-2 KIT **\$16.95**

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SUPER SNOOPER BIG EAR AMPLIFIER



Listen through walls, hear conversations across the room. Add a parabolic reflector and hear blocks away. The BIG EAR Amp. can be hidden about anywhere. Makes an ultra sensitive intercom. Can be used as a 1.5W AMP. We supply a mini-electret mike in the kit. You supply the speaker or headset for output. Power requirement 6 to 12v DC. SIZE: 1" x 2"

AA-1B BUILT **\$29.95**
AA-1D KIT **\$10.95**

WATER DETECTOR



Add this to your security system to turn a sound alarm on when water is present. Uses an LM555 timer IC to generate the tone. The LM555 is configured in the A-Stable mode, with one difference. The sensor PC Board replaces one of the resistors. When any moisture is present on the Sensor PC Board, it causes the circuit to oscillate. Power requirement 6 to 15 v DC. P C Board SIZE: .75" x 1"

WD-3 KIT **\$9.95**

FAN CONTROLLER



Use this kit to control cooling fans. It senses heat and turns on a fan. The fan can be a ceiling fan or a fan in your computer, anything that needs cooled. Output is 100mA. Use the **Relay kit RP-1** or the **Microcontroller Relay PRC-1** kit for 3 amp. operation. Complete with temperature probe. Operating voltage: 7.5 to 18v DC Size: 1.4" x 2"

FC-1 KIT **\$14.95** BUILT **\$29.95**

WATER ALARM



Don't ever get stuck with a flooded basement or over fill your water bucket. When the liquid level reaches the sensor it automatically turns the pump on or off. The Water Alarm supplies you with 100 mA of output that activates a relay (that you supply). This relay can turn on a sump pump, or in applications where you are filling a area with liquid it turns off the pump. Sensor included. PCB size 1.4" x 2"

Wall transformer supplied

WA-2 KIT **\$17.95**

TEMPERATURE GENIE



Ever had precious plants freeze on a sun porch when the outside temperature suddenly dropped? With this kit you can build it to sound an alarm when the temperature reaches a critical point or connect to a relay to activate any type of small heater. This gives you 80 mA of output. SIZE: 2" x 1.4" Power requirement 6 to 15V DC. *If you want to switch more power see our Triac (TP-1) or*

Temperature Range -30° • 250° *Relay (RP-1) Power kit.*
TG-2 KIT **\$7.95**

BUSY PHONE LIGHT



Add this little kit to any or all of your telephones. When one phone is used a red LED will light on the other extension. This lets everyone know when your phone is in use.

Power requirement: 5 to 9v DC. SIZE: 1.1" x .6"
TEL-LITE KIT **\$9.95**

LIGHT GENIE



Turn anything on or off with light. Turns on at night off at daylight automatically. As the light touches or leaves the sensor it delivers 80mA of output to run a relay. SIZE: 1.4" x 2"

Power requirement 6 to 15V DC.
If you want to switch more power see our Triac (TP-1) or Relay (RP-1) Power kit.

LG-2 KIT **\$7.95**

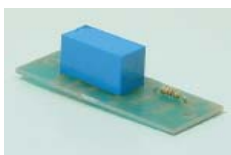
VOICE ACTIVATED SWITCH



This VOX circuit can be used to operate a tape recorder, ham radio, CB radio, or turn on an alarm. The VOX-1 kit has 80MA of output that operates a relay, light, motor, ? What could you do with a sound activated switch? Power requirement 7.5 TO 18v DC. SIZE: 2.1" x 1.35" *If you want to switch more power see our Triac (TP-1) or Relay (RP-1) Power kit.*

VOX-1 Kit **\$6.95**

RELAY POWER KIT



Increase the output of any kit from 70mA to 3 Amps If you need to switch more power, up to 300 Watts, with the Light Genie, Temperature Genie, Timer or Vox kits, use the Relay Kit. We supply a two pole relay 1.5 Amps ea., tie both poles together and get 3 Amps Size .75" x 2"

RP-1 KIT **\$9.95**

DC VOLTAGE MONITOR



If battery status is important, you need this kit. This kit uses 7 LEDs to monitor 12v DC in 1v, 1/2v, or 1/4v steps. Monitor 8v or 5v in 1/4v steps. Great for boats, motor homes, model planes or race car ni-cads. All parts and instructions are included. SIZE: 1.3" x 2.7". *If you want to switch power see our Triac (TP-1).*

VM-2 KIT **\$7.95**
BUILT **\$15.95**

TRIAC POWER KIT



Increase the output of any kit from 70 mA to 4 Amps. Connect to any of the Light Genie, Temperature Genie, Vox or Timer kits, and operate up to 400 watts of power. The Triac is best suited for resistive load applications such as heaters and lights Size .75" x 2"

TP-1 KIT **9.95**

AC VOLTAGE MONITOR



A must for photographers and computer users. Use it in your motor home to monitor the AC generator. The AC voltage is indicated in 6v steps by seven multi-colored LEDs. SIZE: 1.3" x 2.7".

If you want to switch power see our Triac (TP-1).

VM2-110 KIT **\$10.95**
BUILT **\$24.95**

FM STEREO TRANSMITTER



- Have your own FM radio station. Transmit a stereo signal to any FM radio tuneable from 88 to 108MHz
- Have a wireless link to any FM radio, within 200 ft.
- Listen to your CD while mowing the lawn.
- Transmit from your car to your camper, or through an auditorium.
- Wall transmitter included.

FMC-2000 KIT \$54.95
FMC-2000 BUILT \$74.95

FM STEREO TRANSMITTER



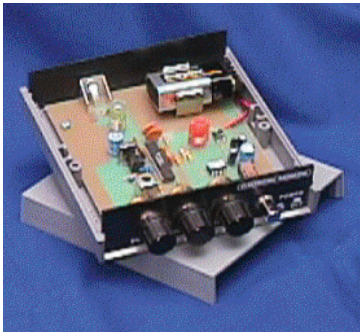
Have your own FM radio station. Any stereo signal you plug into the FMST-100 transmitter kit will be transmitted to any FM radio tuneable from 76 to 108MHz FM. Plug in your CD player, tape deck and have a wireless link to any FM radio, within 200 ft. Listen to your CD while mowing the lawn. Transmit from your car to your camper, or through an auditorium. Transmit music on one channel sing on the other. Compatible with most audio systems. Clarity is excellent, aprox. 40dB stereo separation. Length of antenna determines distance of transmission. Comes complete with left & right input level control as well as a crystal for left & right stereo separation. ANTENNA NOT INCLUDED 9v Battery operation. SIZE: 2.25" x 2.75"

FMST-100
Cabinet

SIZE: 2.25" x 2.75" x 3"

KIT \$29.95
\$8.95

2 METER, 10 METER, 220 MHz FM COMMUNICATIONS RECEIVER



We use the Motorola FM receiver MC3362 IC. The receiver is a dual conversion (10.7MHz tuned IF), with 1uV sensitivity and band width of 5KHz. It has 400mw of output. The only adjustments are easily tuned using one of these items- TV, cable converter, frequency counter, or a service monitor. The kit is varactor tuned with volume and squelch controls. All of the parts are included for each frequency. You choose what frequency to build. Power requirements 9 volt DC.

REC-2
REC-CASE

Size 1.5"H x 5"W x 5.3"D

KIT \$34.95
\$12.95

PERFECT CODE KEYS

Measure the DOTS and DASHES perfectly every time.



- INEXPENSIVE CW Keyer great for the beginner or the old timer alike.
- Speed and Volume control.
- Built in paddles.
- Operating voltage: We supply a 4 "AA" Battery case or you can use a wall transformer 7 to 15 vDC.

Add this CW Keyer to your existing rig or use it as a code practice oscillator

APC-1 PCB size 2.25" x 2.75"

KIT \$39.95

APC-C Optional Case available Size 1.5"H x 5"W x 5.3"D

\$14.95

CODE OSCILLATOR



This easy to build kit will give you the dots and dashes for practicing the Morse Code. You can use this as a signal tracer to repair audio amplifiers. Power requirement 6 to 15 volts DC. SIZE: .75" x 1"

OSC-1 **KIT \$6.95**

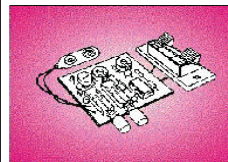
THE SEARCHER RADIO DIRECTION FINDER



You can pay more but all you need is the "SEARCHER". A direction finder antenna that connects to any UHF/ VHF Amateur Radio or Scanner. Great for fox hunting, finding hidden transmitters, tracking down unknown transmitters that are raising havoc with your repeater...Look out FOX! This VERTICAL DI-POLE antenna connects to your radio through the antenna jack. Tune your radio to the frequency of the transmitter, any from 120 MHz to 500 MHz you are trying to locate, you will hear a tone and the transmit modulation at the same time. When the tone nulls (becomes silent) that is the direction you want to travel. To further check your progress the signal level meter of the radio should rise. The "Searcher" has an audio tone control and comes with a case to house the electronics, 4 antennas, and all of the parts to construct a 24" wide VERTICAL DI-POLE antenna. You can have fun with this kit and won't break your pocketbook. Power requirement 9v DC.

SDF-1 **KIT \$44.95**

CAPACITANCE ADAPTOR



This kit will turn your digital volt meter into a capacitance meter. Turn that junk box of unmarked capacitors into a fortune of usable parts. Measure capacitors from <2.2pF to 2.2uF. Power requirement 9v. SIZE: 1.80" x 2"

CA-1

KIT \$12.95

INDUCTANCE ADAPTOR



This is the kit everyone has been asking for. Turn your digital volt ohm meter into an inductance meter. It will read inductors 3uH to 7MH. Power requirement 9v DC. SIZE: 1.75" x 2.5"

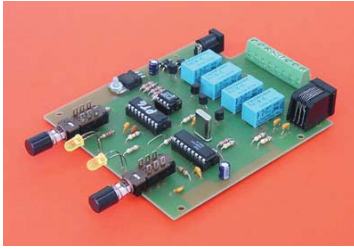
IA-1

KIT \$14.95

IA-1CABINET

\$8.95

PHONE TONE GENIE



Now you can control 4 separate devices with DTMF tones from anywhere in the world using your telephone!

Simply connect your Phone Tone Genie to your phone line and program in a security code using DTMF tones up to 16 digits in length with your telephone. Any device connected to the Phone Tone Genie can then be turned on or off by entering your security code. Each device may operate off of 120 AC and up to 2 Amps.

Have you ever wanted to call home and turn a device ON or OFF, from across town or anywhere in the world? Turn the lights on and off when your on vacation.

- Start your furnace so the house is warm when you get home from work. Additional interface electronics may be required.

Perhaps you need to listen for any sounds in your house.

- Some times when your at work, or when you're on vacation, you get that uneasy feeling, -- what's going on at home or mabe your office? With the Phone Tone Genie along with the **AA-1 Super Snooper Big Ear** you can hear everything. (The **AA-1** is a highly sensitive amplifier kit which we have available.) Connect the Phone Tone Genie to your radio speaker.
- If you are a volunteer Firefighter, Policeman, or an amateur radio operator, set Phone Tone Genie to a pre-determined code, connect the Phone Tone Genie to your scanner or ham radio, when the Genie hears this code it opens the speaker and you are able to receive your personal message, without listening to that trying audio all day long.

To use your Phone Tone Genie unit in any capacity you must have a device which answers the phone line such as a answering machine. When the answering machine completes the connection, and the code is entered, the Phone Tone Genie takes over and preforms the function it is designed to do.

Operates from 12 VDC Wall transformer, included. Size: 1.5"H x 5"W x 5.3"D

PTG-1 BUILT **\$139.95** KIT **\$99.95**
PTG-C Case **\$12.95**

16 DIGIT DTMF DECODER



- Turn lights on and off when you're on vacation.
- Switch up to 1 amp. using built in relay.
- Start your air conditioner before you get home.
- Change your phone to the fax or the computer.
- Perhaps you want to listen for any sounds in your home or office. This can easily be done by adding our AA-1 Big Ear kit.
- Keep anyone from dialing a certain number or dialing long distance

Have you ever wanted to call home and turn a device on or off from across town or anywhere in the world?

Connects to any TELEPHONE, AMATEUR RADIO, OR SCANNER ACCEPTS UP TO A 16 DIGIT SECURITY CODE

DTMF-2 BUILT **\$99.95**
KIT **\$74.95**

CALLER ID DEFEATER



The kit that brings back the privacy in phone calling. I know you can defeat CALLER ID if you dial *67, but how often do you remember to do that? This kit dials *67 automatically. Now nobody can identify you as the caller. Easily modified for Centrex telephone systems. We supply a DC wall transformer. PCB size: 2.75" x 2.25"

CID-1 KIT **\$49.95**
BUILT **\$69.95**

DTMF DISPLAY

Press a button and learn every number dialed on your phone while you were away! Stores the last 490 digits it receives. Connects to a phone, scanner, amateur radio, or etc. Decodes any DTMF signal transmitted.



Okay. Caller ID's tell you what number is calling you. But what about the calls made from your phone? Now, return from work or vacation and know the answer.

The new DTMF Recorder electronically logs and saves every number dialed. This is the same high-tech magic used by detectives and government spies. Now yours. Does your wife or husband make expensive long-distance calls and then deny it? Does your son or daughter call that low-life you forbade them to talk to? Now know.

- Decodes digits 0 thru 9, #, *, A, B, C.
 - LCD Display with 2 lines of 16 digits.
 - Connects into your phone, scanner, or radio in seconds, with the handy connecting cables supplied.
 - Records all numbers dialed, including local numbers that don't appear on your bill.
 - Records credit card numbers entered through your phone key-pad.
 - Records Voice mailbox, answering machines, and modem access numbers.
 - Records Cellular or repeater phone numbers heard over your phone.
- Even hook to a scanner, and learn scores of emergency phone numbers. Also decodes tones stored on a tape recorder. Never before has such sophisticated gear been available to the public. Power requirement 9v DC. SIZE: 3.5" x 4" x 1"
- DIS-1 KIT **\$119.95**
BUILT **\$159.95**

SWEET 16 TONE DECODER



Operates great through phone lines, radios or scanners. The **TT-16 DECODER KIT** provides a design platform you can use your imagination to build on.

The **SWEET 16 TONE DECODER** detects (DTMF) "Dual Tone Multi-Frequency" data (those sounds you hear when pushing buttons on your phone), and - when each individual button is pressed it sends a unique voltage to the electronics on the printed circuit board which activates a circuit on or off. There are 16 different touch tones, 12 of which are on a normal phone; special key pads have 4 additional buttons (A, B, C, D.). This decoder gives an output voltage for all 16 touch tones. The **Sweet 16 Tone Decoder** has on the printed circuit board one (1) relay and driver circuit. If you want to use all 16 you can build your own board with 16 relays and driver circuits on it, or to get fancier use a flip-flop IC to achieve a "toggle" effect (push ON, push OFF), or a 555-timer to provide a timing effect (on for 5 minutes, then off) - the choices are almost unlimited. Any one output may be connected to the onboard relay circuit. Size: 2.2" x 2.8"

TT-16 KIT **\$34.95** BUILT **\$69.95**

AUDIO PREAMPLIFIER



Boost your microphones output up to line level!

Plug your mic into our AP-1 and drive your amp. to full capacity. Connect an AP-1 to a pair of amplified speakers, plug your mic in and you have an instant PA system. Requires 6 to 12v DC Size: 1" X 2"

AP-1 KIT **\$9.95**

1 WATT AUDIO AMPLIFIER



This is a perfect companion for your portable audio player. It provides up to 1.2 Watts of audio power. Complete with a volume control. Power requirement: 3 to 18 VDC
P C Board Size: 1.15" x 1.15"

AP-1W KIT **\$8.95** BUILT **\$18.95**

ACTIVE ANTENNA

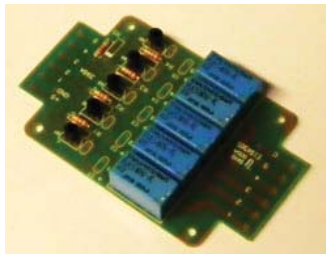


- Replace a 60' long wire antenna with this small unit
- Use it on short-wave, HF and VHF.
- Great for scanners, ham receivers, or general coverage receivers
- Complete with a telescoping antenna.
- Freq. 1MHz to 100MHz
- Gain control
- Operates on 9v DC. or use a 7 to 15vDC wall transformer.

ACA-1 PCB size: 4.2" x 4.6"

KIT **\$44.95**

RELAY KIT with 5 RELAYS



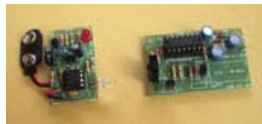
This kit has 5 relays with driver circuits. You can operate each relay with a logic level signal. The outputs are 1 common and 5 normally open switch contacts. Inputs are 1 common (GND) 5 logic level and +5 Volts.

Power requirement: 5VDC
Size: 2.25" x 3.9"

RELAY 5

KIT **\$23.95**

INFRARED RECEIVER and TRANSMITTER



Transmitter
Power
Requirements
6 TO 15v DC.

Receiver Power
Requirements
7.5 TO 16v DC.

This kit transmits a 40KHz modulated I-R signal to a distance of 6 to 20' Place the transmitter on one side of a door way and the receiver on the other side to see if an object passes through. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40KHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch.

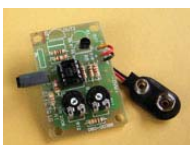
You can use the receiver to test TV or VCR remote controls. *If you want to switch more power see our Triac (TP-1) or Relay RP-1) Power kit.*

Transmitter SIZE: 1" x 1.6"

Receiver SIZE: 2.1" x 1.35"

IR-10TR (Includes Transmitter & Receiver) KIT **\$22.95**

DIGITAL THERMOMETER



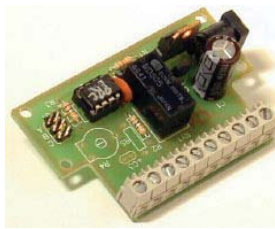
The DT-3 kit will turn your digital volt ohm meter into an accurate digital thermometer with .1 degree resolution. Measure temperatures from -40^o to 250F^o The remote sensor is .25" sq. and can be mounted many feet from the meter.
Power requirement 9V DC SIZE: 2" x 1.4"

DT-3

KIT **\$8.95**

PIC RELAY CONTROLLER

This is a good companion for any kit that needs additional amperage or a micro-controlled relay function.



Relay functions listed below are preset.

- ON / OFF toggle mode
 - ON/ RESET mode
 - Fixed delay .5 second pulse stretch
 - Fixed delay 10 second pulse stretch
 - Variable time 1.5 to 14 sec.
 - Variable time 11 to 24 sec.
 - 3 Amp. total output
 - Input and reset signal can be Active HI or LO
 - Wall transformer included
- Voltage requirements 7.5 to 15vDC
Size: 1.75" x 2.7"

PRC-1
PRC-C

KIT **\$24.95**
Case **\$12.95**

TV NOTCH FILTER



For Cable
Channels
2 thru 22
ONLY

Our TV filters eliminate unwanted TV channels or interference that alters both sound and video with a beep beep beep. Works on cable channels (2 thru 22) only.

NOTE: All TV Filter Kits are sold for educational purposes only. You must obtain permission from your local cable company before using these filters on your cable system.

DF-222

KIT **\$14.95**

LIE DETECTOR



This kit can be great fun at parties. When you lie, generally your hands will sweat and the more you sweat the louder the tone. This kit allows you to measure these changes, only a slight amount of change will cause the tone to increase in frequency.

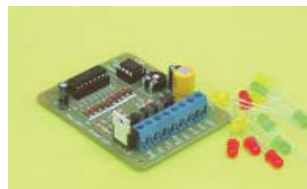
Power requirement 6 to 15v DC.

SIZE: .75" x 1"

LD-1

KIT **\$9.95**

STOP LIGHT CONTROLLER



This kit makes Model Train displays look more real. It might even help your bar or party room. You can control up to 3, 4-way intersections with one kit. We supply the Instruction Manual, controller PC Board and all of the parts (LED's) to make 3, 4-way intersections.

Each output supplies 60ma. If you need to control larger lamps you can connect a relay or an I/O Module to each output.

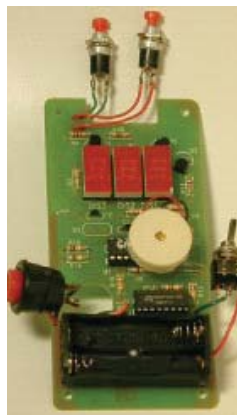
Power Requirement: 7.5 to 18 VDC

PC Board Size: 2.25" x 2.75"

STOP-1

KIT **\$17.95**

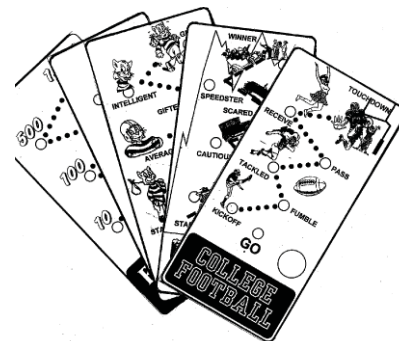
10 MINUTE COUNTDOWN GAME TIMER



- 3 - Seven segment LED displays.
 - Counts down by seconds.
 - In the last minute it sounds a short beep every 10 seconds.
 - The last 10 seconds it will sound a beep every second.
 - One long beep will sound when time is up.
 - This kit is a good example of how a microprocessor works.
- PBC size 2.3" x 4.8"
Cabinet size 1.6"H x 2.5"W x 5"D

GT-10 KIT **\$29.95**
GT-C Optional Case **\$12.95**

SKILL MASTER GAME



Fun for the whole family!

- The game tests your eye hand coordination.
 - The more LEDs you light up, the better your skill.
 - Push the button when it's green and you advance up the skill level, push it when it's red and you loose a step.
 - Comes with 6 different game overlays
 - Operating voltage 9v DC. **Case Included**
- Size 1.6"H x 2.5"W x 5"D
SLG-1 KIT **\$29.95**

6 Skill Games

EDUCATIONAL BLOCK KITS

LOGIC PROBE



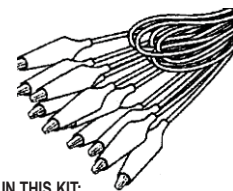
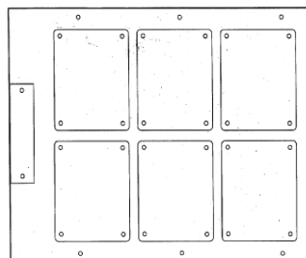
Digital logic: the heart of today's technological revolution. Yet, digital signals are either "on" or "off," and you need an easy way to monitor them.

Enter the EBLOG-300, a simple piece of test equipment that comes in very handy. Logic probes test digital circuits at various points, and show whether that point is *high*, *low*, or constantly *changing*. They help you understand and troubleshoot logic gates, timers, clocks, counters, prescalers, and other digital circuits you might come across. The logic probe is powered by the circuit under test. Size 4" x .75"

EBLOG-300 KIT \$9.95

For surface mount order
EBLOGSMD-300 KIT \$9.95

MOTHERBOARD



IN THIS KIT:

- Motherboard
- One set of 10 color coded test leads
- Hardware

This you don't need. That's what I thought, too - until I tried hooking three or four kit boards together, *via clip leads, without it*. I found out quickly why it's helpful! If you don't have one (or elect not to use it), all the individual circuit-boards slide around, bumping into each other, messing up the clip leads, and just generally being troublesome. The Motherboard holds them in place, and makes it easy to move even a connected project from one place to another without losing any connections - try *that* with three or four individual boards and about eight clip leads!

EBMOT-200 KIT \$19.95

AUDIO AMPLIFIER



This kit teaches how amplifiers take a small signal and "magnify" it to drive a small speaker or headphone. It's based on the LM386 Low Voltage Power Amplifier. This chip is not a toy; it's designed to be used in a variety of consumer-electronics applications such as AM-FM radio amplifiers, portable tape or CD players, intercoms, TV sound systems, etc. Provides up to 1 watt of low-distortion audio power. Harmonic distortion is 0.2%; voltage gain up to 46dB.

Power requirement 5 to 15vDC Size 2.25" x 2.75"

EBAA-1 KIT \$9.95

Surface Mount
EBAASMD-1 KIT \$9.95

AUDIO STEREO PREAMPLIFIER



Ever wonder how op-amps work? Have you heard the term, but are unsure of how to use them in circuits? This kit, based on the LM1458 Dual Op-Amp, fills you in on Op-Amp basics *and* provides a working preamp, capable of amplifying mic-level signals to the point where they can drive a power amp (such as the EBAA-1.) Featuring two high-gain stages, each with an adjustable output level.

The stages can be connected together to provide one high-gain preamp, or used separately for stereo. Power requirement 5 to 15vDC Size 2.25" x 2.75"

EBAP-2 KIT \$9.95

For surface mount order
EBAPSMD-2 KIT \$9.95

AUDIO OSCILLATOR



Sine waves are "pure" audio tones typically used to test audio equipment. This audio oscillator kit produces sine wave audio signals. Output amplitude is adjustable. Use this kit to learn the "signal injection" method of audio-circuit troubleshooting, or connect two or three together to produce complex audio signals such as DTMF (Dual-Tone Multi-Frequency) "phone tones." Connect to the audio amplifier EBAA-1 and hear the sine wave tones.

Power requirement: 5 to 15 vDC Size 2.25" x 2.75"

EBAO-3 KIT \$9.95



For surface mount order

EBAOSMD-3 KIT \$9.95

COUNTER DISPLAY



How do you *count* and *display* pulses? The EBDC-7 shows how a digital display operates in digital clocks, frequency counters, tachometers, or general-purpose counters. Learn the secrets of 7-segment LED displays! Based on the CD4518 Dual BCD Up counter (for use in many different counting and frequency-dividing applications) and the

Motorola MC14543 BCD-to-Seven Segment Latch /Decoder/ Driver for LCD & LED displays. Possible applications include instrument counters, digital voltmeters, calculator cockpit display, and various clock, cockpit display and various clock, stopwatch, and timer uses, limited only by your imagination.

Power requirement 5 to 15 vDC. Size 2.25" x 2.75"

EBDC-7 KIT \$14.95

POWER SUPPLY



The EBPS-4 will supply DV voltage of the proper magnitude and type for all the ELECTRONIC EDUCATIONAL BLOCK kits, and supplies a tightly-regulated and filtered +5vDC, as well as variable output from +6 to +10vDC. This power supply delivers up to 300 mA, and features internal thermal overload protection, as well as internal short circuit current limit. Supplied with your kit is a 12vDC wall transformer. Size 2.25" x 2.75"

EBPS-4 KIT \$17.95

Operates from a 12 to 16vDC Wall Transformer - **Not available in surface mount.**

PEC DRIVER / DEBOUNCE



This kit teaches you about *light* and *infrared* sensing circuits. Learn how to control other circuits with light! Ever hear the term "prescaler" and wonder what it is or how it works? Discover how to use the CD4518 Dual BCD Up counter as a prescaler, and divide a high-frequency signal by 2 or by 10 so you can display the results with a circuit such as the EBDC-7 Display/Counter kit. Includes a current driver transistor so your project

can control larger devices such as relays and/or small motors. Power requirement 5 to 15 vDC. Size 2.25" x 2.75"

EBPHO-8 KIT \$12.95



For surface mount order

EBPHOSMD-8 KIT \$12.95

POWER SUPPLY



This kit will allow you to operate your project with a +12vDC battery. Perfect automotive or robotics applications. This power supply allows up to 1.0 A load current with the heat sinking provided (**battery used will determine actual allowable current.**) Current limiting is included to limit the peak output current to a safe value, and a thermal shutdown circuit prevents the regulator from overheating. Provides +5vDC fixed and +6 to +9.5vDC variable output, well-regulated and filtered. Power requirement 12 to 18vDC Size 2.25" x 2.75"

EBPS-5 KIT \$12.95

Operates from a 12vDC Battery - **Not available in surface mount.**

TIMER DEBOUNCE



Based on the LM555 Timer Chip, a highly stable device for generating accurate time delays or oscillation. When a switch is turned on or off, mechanical bounce noise generates spurious pulses. When operated in "monostable" mode, the EBTD-9 prevents these noise pulses from adversely affecting your project. Use this circuit to set clocks or counters - any time you need a

push-button switch! Or, run the kit in "astable" mode and learn how clock/timer oscillator circuits work. Use this circuit to "clock" other projects.

EBTD-9 KIT \$12.95



For surface mount order

EBTDSMD-9 KIT \$12.95

LOGIC GATE DRIVER



Learn how to use CMOS digital Integrated Circuits in your project! Here's your chance to do "hands on" experimentation with AND gates, NAND gates, and NOR gates - the basis of digital logic and digital computers! See how different kinds of digital logic gates control signals. Use this kit in conjunction with other ELECTRONIC EDUCATIONAL BLOCK kits. You can build

counters, clocks, and other logic circuits just to name a few. Includes 2 transistor current drivers so your project can control larger devices such as relays and/or small motors.

Power requirement 5vDC. Size 2.25" x 2.75"

EBLG-6 KIT \$12.95



For surface mount order

EBLGSMDSMD-6 KIT \$12.95

TOUCH SWITCH



Learn how modern switching technology fits into your projects! Do away with noisy mechanical switches that wear out! Lightly put pressure on the EBTS-10 Touch Switch and the (lights, CD player, appliances) comes on. Touch the switch again, and it goes off. Based on the LM555 Timer running in monostable (timing) mode, as well as the CD4518 Dual BCD Up counter (used as a

"flip-flop"), this kit includes a Relay Driver Transistor and a DPDT relay whose contacts are rated at 1.5 amps. You can switch a 300 Watt appliance with the EBTS-10. Power Requirement 5 to 15 vDC. Size 2.25" x 2.75"

EBTS-10 KIT \$12.95

Not available in surface mount.