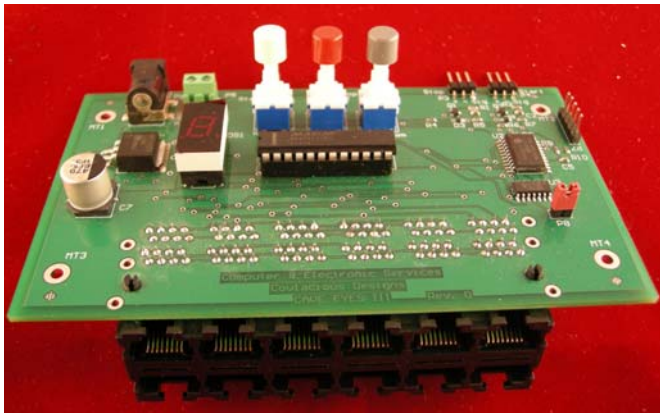
Cave Eyes

DELUXE



Cowlacious Designs™
By Computer & Electronic Services

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Cowlacious Designs
255 Distribution Dr. #203
Sparks, NV 89441
(775) 425-9151
www.cowlacious.com

Introduction:

- Cave Eyes are designed to imitate the eyes of bats or other creepy crawly creatures that blink on and off in the darkness. They can also be used to replicate the flashing lights of high tech equipment. They can be used anywhere where you need flashing pairs of LEDs.

- Cave Eyes are used in conjunction with the Cave Eye LED harnesses (sold separately). At least one harness is required (up to a maximum of 12 harnesses) for the Cave Eyes to work.

- Cave Eyes now have multiple LED flashing sequence programs.

- The speed of the LEDs flashing of all programs is now adjustable.

- The brightness of the LEDs in all program modes is now adjustable.

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Operations:

- ☐ Connect your Cave Eye harnesses by plugging into any of the 12 RJ45 jacks on the front.
- ☐ Supply power to the board by connecting a 9 to 24VDC power supply to the barrel connector power jack on back. Note: If you are supplying your own power supply, use a center positive plug. This jack is a 2.1mm x 5.5mm jack.
- ☐ You should see a “Power” LED light up inside the box and a number appear on the display as soon as power is applied.
- ☐ The number indicates the program mode.
- ☐ With the program off you can change the program mode by pushing the “prog” (gray) button. Once the desired program mode is reached, press the “start” (white) button to start the program.
- ☐ To stop a running program, press the “stop” (red) button.

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Programing:

Cave Eyes have three programming buttons: the “start” (white) button, the “stop” (red) button, and the “prog” (gray) program button.

The “start” button runs the current program.

The “stop” button turns off the program.

The “prog” button allows you to change between the different programs. (To change programs you must be in the off mode. Press the “Stop” button to go to the off mode.)

Program 1: Regular blinking eye program.

Program 2: Slow wake up (as if the creatures were randomly just waking up) which then proceeds into the regular blinking eye program.

Program 3: Alternative slow wake up which proceeds into the regular blinking eye program.

Program 4: All LEDs repeatedly fade to bright and then fade to dim.

Program 5: All LEDs repeatedly flash on then flash off.

Program 6: Used to set LED brightness.

To set brightness, press the “start” button. Press and hold the “prog” button until the right dot at the base of the number comes on. With the “prog” button depressed and the right

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dot on visible on the numeric display, pres the “start” button to increase the brightness (numbers 1 to 9 with 1 being the dimmest and 9 being the brightest) or press the “stop” button to decrease the LED brightness. (The change of brightness of the LEDs does not show until you release the “prog” button.)

To program LED speed: In programs 1 thru 5, press the “start” button to start the program. While the program is running, press and hold the “prog” button until the right dot at the base of the numeric display comes on. With the “prog” button depressed and the right dot on, press the “start” button to increase the program speed (numbers 1 to 9 with 1 being the slowest and 9 being the fastest) or press the “stop” button to decrease the program speed. Once the desired speed is reached, release the “prog” button. You will have to press the “stop” button and then the “start” button to start the program at the new speed.

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SUPPLIED OPTIONAL DEVICES

- TRIGGER WIRES - Two sets of trigger wires are provided for your convenience. The trigger wires allow you to easily trigger the device using an effect timer, step pad, switch, etc. Then connect the trigger wires to your triggering device. You can also use a trigger to turn the effect off. Place a trigger wire plug on the “Trigger Stop” connection to be able to trigger the effect off. The triggering device should provide a set of dry contacts that do not send any voltage to Cave Eyes triggering pins.

If you plug one of the trigger cables onto the “Trigger Start” connection, strip back the white wire a bit and strip back the black wire a bit, and tie them together, then the unit will start the current program as soon as power is supplied.

OPTIONAL DEVICES – Purchased Separately

Motion Sensor – Either of our motion sensors are capable of being plugged onto the “Motion Start” or “Motion Stop” plugs on back of the unit. These allow the use of motion sensor to start and stop the routine. A motion sensor can be placed where a group would enter that portion of your haunt and then another at the exit of that portion of your haunt to reset it for the next group that walks through.

LED Harnesses – LED harnesses of various lengths and LED color can be purchased to add additional lights to your Cave Eyes unit.

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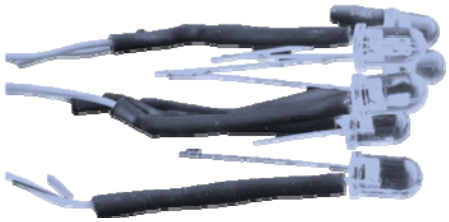
Making Your Own LED Harness

If you plan to make your own harnesses, use CAT-5 networking cables. Either buy twice the length you need and cut them in half or cut them whatever length you want them. You can also buy the length you want and cut the connector off one end. Then peel back the outer casing that is around the eight network wires inside of the cable. Strip back ¼ inch of insulation off each set of wires. There should be four pairs of wires: white/orange and orange/white, white/blue and blue/white, white/green and green/white, and white/brown and brown/white. For the rest of this document we are going to be working with the white/orange and orange white, but the steps must be repeated for the other sets of wires.
Divide the LEDs into 4 set of two. With each pair, solder together, at the tips, the long wire of one LED with the short wire of the second LED. The long lead is the positive and the short lead is the negative, so we are wiring them in series with each other.
Place 1-1/4 inch of .12 inch (3mm) diameter heat shrink tubing onto each wire of one of the sets of wires. One on the white/orange and one on the orange/white. The wires should be unwrapped enough to allow the stripped part of the wire to be sticking up and out of the heat shrink tubing.

Wrap the stripped part of the white/orange wire around the remaining long lead of one of the LED pairs. Wrap the stripped part of the orange/white wire around the remaining short lead of the same LED pair. The mostly white/orange wire is the positive wire and the orange/white wire is the negative. Solder the wires to LED leads.

Slide the heat shrink tubing up to the base of the LED on both wires and shrink it around the leads using the heat source of your choice. We use a craft heat gun, but we've seen done with a lighter, a match, a hot soldering iron etc.

Repeat the above steps for each of the wire pairs in the harness.



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