

These pages are intended primarily as a source of ideas. As far as reasonably possible all material has been checked for feasibility, component availability etc, but the circuits have not necessarily been built and tested in our laboratory. Because of the nature of the information in this section we cannot enter into any correspondence about any of the circuits, nor can we produce constructional details.

## An eye for a Cylon

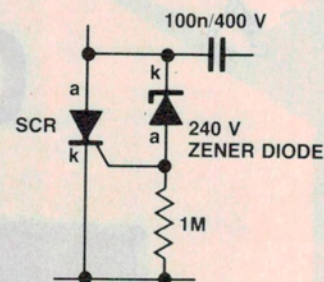
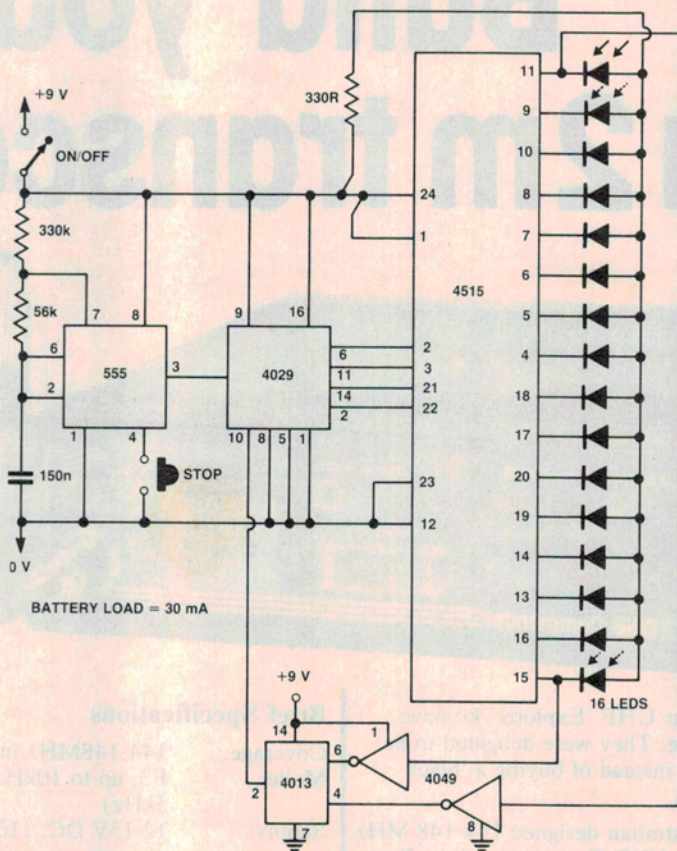
Fred Lever, Toongabbie NSW

Recently I went to a fancy dress party and inspired by the TV series, I went as a dastardly Cylon. The voice was provided by your Sound Bender (ETI February 1982). However, I still had to make the single red eye as a blind Cylon at a party is not much chop.

A 555 timer drives a 4029 hex up-down counter. Its output is fed to a 1-of-16 decoder, which in turn lights one of 16 LEDs. The 4013 flipflop is used to change the direction of the counter whenever the first or sixteenth LED lights. The pushbutton is used to stop the eye, as this is what happens when a Cylon 'thinks' hard.

The circuit, mounted in the helmet, looks quite effective and the speed of the eye is about the same as a 'real' Cylon.

Note that the circuit could be simplified by using a 4514 and leaving out the 4029, but I couldn't get my hands on one.



PORTION OF SCHEMATIC DIAGRAM OF STROBE MODIFICATION SHOWING MODIFICATION

## Strobe Modification

Mark Hedley of Chatswood NSW constructed the disco light strobe project ETI-574, and found a few problems with it.

He found that the flash rate was slightly irregular and dependent on the ambient light level.

The problem was solved by replacing the neon indicator tube with seven 33 V zener diodes, to give a total zener voltage of 231 V.

## Joystick

The poor quality of the joystick supplied with the Commodore 64 caused some problems to Greg Symons of North Carlton Victoria. He replaced it with a commercial quality one which he bought from an amusement distributor for \$28.

The problem was that the new joystick needed to be rewired and mounted in a proper box so that it could be used with the Commodore. He found a box of suitable dimensions, and mounted the joystick and two fire buttons in it. He then connected some rainbow cable between the four micro switches and the joystick, the fire buttons and the computer's input port. The connections are:

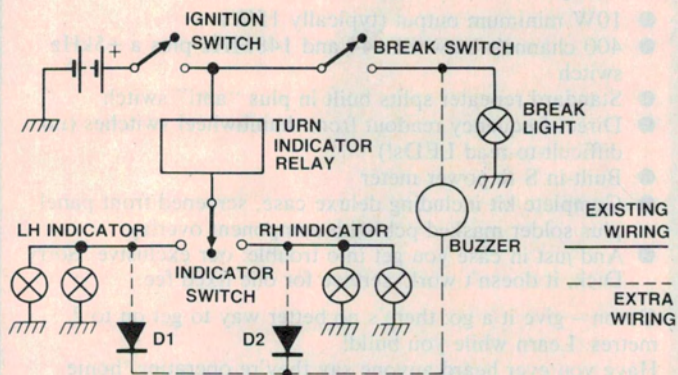
- Pin 1 Joy A0 Up
- Pin 2 Joy A1 Down
- Pin 3 Joy A2 Left
- Pin 4 Joy A3 Right
- Pin 6 Fire button
- Pin 8 Common

## Buzzer inhibitor

Kevin Lowton of Seven Hills NSW fitted this circuit to his motorbike where it performed faultlessly for twelve months.

Some motorcycles have a buzzer that sounds in conjunction with the turning indicators to remind the rider to cancel them. This system works well, but it suffers from the problem of irritating both the rider and surrounding motorists when the rider is caught in traffic. What is needed is a foolproof way of inhibiting the buzzer while the bike is stationary. This simple circuit contains only three components yet it not only inhibits the buzzer but acts as a brake light fail indicator as well.

When either blinker is selected, current is fed through the buzzer via D1 or D2 and flows to earth via the brake light. When the brakes are applied the



buzzer is shorted out. If the brake light goes open circuit or if the brake light switch needs adjustment then the buzzer will not work.

The whole circuit is small

enough to fit inside the headlight assembly of most bikes, with the added advantage that all the wiring is usually accessible there.