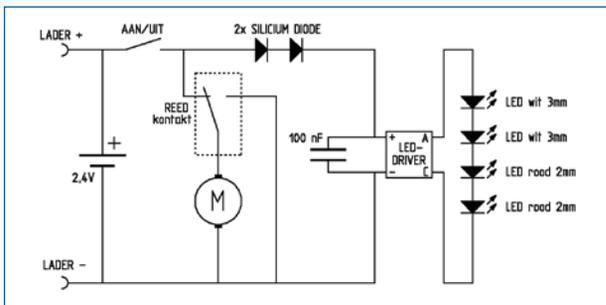


Free LED Driver

Dear Editor — I've been an Elektor subscriber for over 30 years and still enjoy every copy. The September 2007 issue came with a free LED driver board, and in the accompanying article I read that the board could be used with several LEDs in series. Being a model railway enthusiast, it struck me that that the little board might be used for by Faller coach model. The coach contains a 2.4-V battery (2 off 1.2 V rechargeables) I thought I could use for vehicle lighting comprising four LEDs.

After a few quick tests the circuit worked just fine with four LEDs, however the 2.4-volt supply voltage caused start failures on occasions. I lowered the supply using two diodes and then the circuit worked perfectly. The schematic shows the complete circuit of the coach with the LED driver and the LEDs and the photo shows the results. Thanks for the board I got from you at no charge.

Fred van Etteger (Netherlands)



A brilliant application, Fred, thanks for that. However, two diodes in series to reduce the driver supply voltage seems wasteful — one diode would be tight on the maximum supply voltage, so it all looks quite critical. It may be an idea to connect two LED drivers in series, although admittedly we have not tried this ourselves.

Ring Flash

Dear Elektor — from an old tech, a big “thank you guys” for a consistently excellent magazine.

The Ringflash article (February 2008) is really inspiring, however there two minor

errors on the circuit for the Kodak disposable flash, Fig. 1 on page 52.

- the label for the 300 Volts output should read V- Flash (300 V). The inverter section is negative-ground, but like many of these units the high-volt-

age section is positive-ground — the main electrolytic is shown correctly.

- in the (discarded) trigger section, what is shown as the second neon, NE2, is in fact the (300>350V!) shutter flash trigger contacts.

When I asked the local photo processor for a used disposable camera I had twenty forced on me! Several different brands! There is considerable variation in physical form, circuit, quality, and accessibility, with the Kodak being one of the better and more common. This pile contains not only working flash units; but at least, an almost fresh alkaline AA battery, a LED or neon, a 350 V low-ESR electrolytic of 80 to 160 μF , one 22 nF/350V, and a high-voltage diode, etc.; plus several different lenses, and some springs. This trove will help considerably with my next valve guitar amp build.

Application of a hot-air paint-stripping gun to a few old computer boards has yielded a snowstorm of useful components; dead PC power supplies (also available free) have 80 to 90% recoverable components, and the cases make good project platforms.

What do you do with the hands-free set, squashed \$600 digital camera, and 1 GByte flash drive you found in the street?

And all this normally goes into landfill rather than recycling — what a terrible everyday waste of useful electronic stuff, free for the asking.

Roly Roper (Australia)

As you may have gathered from the ‘Modding & Tweaking’ series of articles by various authors, we also enjoy taking apart the odd bit of defunct electronics, if only out of curiosity how stuff can be made so cheaply. When I was young I picked up the odd TV set or radio from the street before garbage collection day. This ‘grot’ as my parents called it, actually provided a good stock of electronic components to reuse in my own projects.