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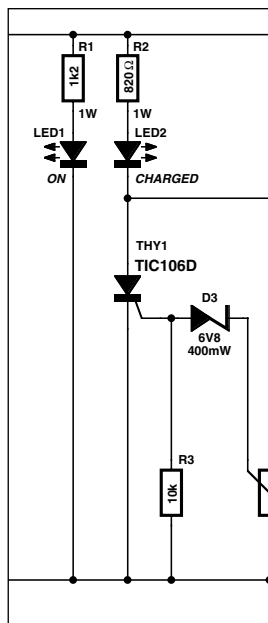
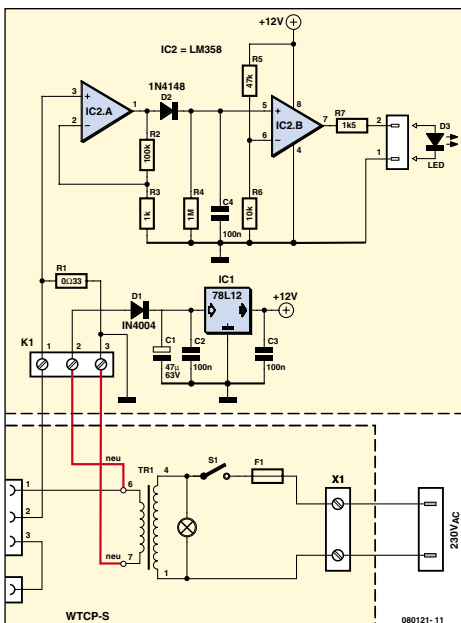
Is there a benign Elektor reader out there who can help me to obtain working Delphi code? I know my micros are sending/receiving HID messages, because I did manage to find an HID snooper. Can any one help?

**Ceri Clatworthy (UK)**

### Much simpler

Dear Jan — regarding your 'Indicator for Weller Soldering Stations' (July/August 2008, Ed.), I believe I have a much simpler circuit for a heat

spindle, to give you up/down pulses for a counter on each axis. The easiest source of these is a computer mouse with a ball in it. These usually have two small wheels inside, each with an optical (infrared) rotary encoder fixed to them. There is usually a small circuit board in there, too, which translates the encoder signals to up/down pulses; you can use these signals coupled to an up/down counter with output suitable to drive a 7-segment display for each axis, such as the Intersil ICM7217A, a



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indicator lamp: a 10-Ω resistor in series with the primary winding, with a LED and 47-Ω series resistor connected across the 10-Ω resistor. I also soldered a small capacitor across the LED to slightly reduce the switch-on current surge. This arrangement has been working perfectly for several months now.

**Jim Colthorpe (UK)**

4-digit BCD up/down counter. Use one on each axis. Hope that helps!

**Steve Reynolds (UK)**

### Using the car battery charger with gel cells

Hi Jan — do you think your Automatic Car Battery Charger (July/August 2008, Ed.) can be used for charging gel cell