

or more. I propose current limiting the output as in the previous example (suitably adapted for a high-side field winding).

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Circuit Notebook: a few observations

I have a couple of minor observations in respect of two items published in the Circuit Notebook section of SILICON CHIP for March 2008:

(1) The PC cooling fan driver on page 71 has no hysteresis. I think that the fan could hunt around the set-point whenever the +5V rail fluctuates, as it does during variations in CPU load.

(2) The alternator controller on page 68 suffers from two potential problems. The first is that the battery will discharge into the field winding at a maximum rate of $\sim 4A$ if the motor stops for any reason. To prevent this, I propose that the field section be powered from the alternator's exciter diodes. The initial self-excitation current could be provided by a momentary start switch as in this example at:

<http://www.users.on.net/~fzabkar/alt-reg.JPG>

The second problem is that a flat battery will be subject to the full output of the alternator which could be 40A