VM-1 Sleep Circuit

This circuit allows the VM-1, or any controller equipped with a PCF8583 Real Time Clock IC to switch it's power off until the RTC alarm is triggered.
The only current drawn from Vin is the leakage through the FETs, which is much less than a uAmp.

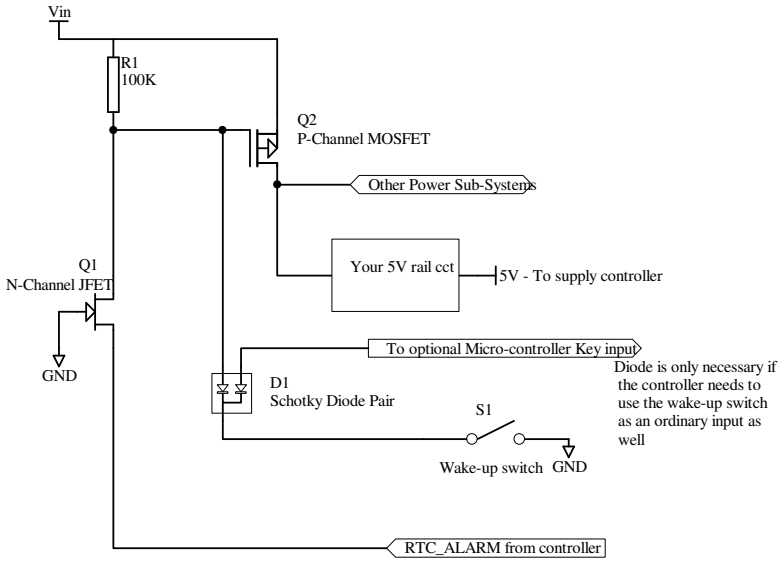
The MOSFET should have current and voltage capacity for your application.

If the voltage drop across the MOSFET is small enough and you don't care about the current taken by the 5V regulator you can switch the 5V rail.

If your power rail is guaranteed to stay below 6V then you can omit the JFET, which is only to isolate the PCF8583 from Vin.

The JFET should have a maximum pinch-off voltage (Vp) less than the 6V limit of the PCF8583 O/D alarm output.
Vp-max should also be less than the minimum value of Vin.
The minimum Idss current of the JFET should be > Vmosfet-turnon / 100K.
The JFET should have Vds max that can accomodate the largest Vin likey.

Possible JFETs
J110, J176, J177, J211, 2N4338.



D008 VM-1 Sleep Circuit	Micro-Robotics Ltd.
Revision: 1.0 / 2001 06 07	The Old Maltings
Date: 3-Apr-2006 11:48:16	135 Ditton Walk
Sheet 1 of 1	Cambridge CB5 8QB
File: S:\data\Venom SC\VM-1 Useful Ccts\D008_VM-1_Sleep_App_Note.Sch	Tel. +44 (0) 1223 523100