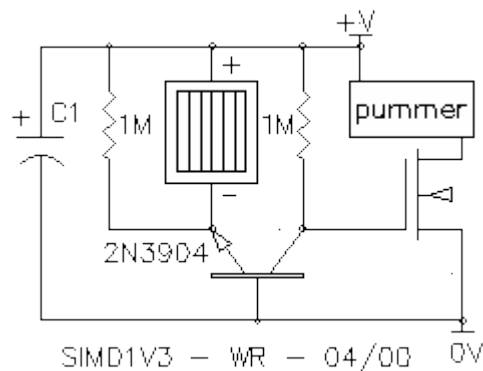


# SIMD1 V3

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The SIMD1 V3 is very similar to the NPN flavor of SIMD1 V2, but with the addition of a FET on the output line. This makes life easier for its attached load (since there's no need here for something that can use an "enable line"), by providing power that's just "there" in the dark. Here the FET is used to sink load current from a pummer, motor, or whatever.



Turn-on is crisp, and the circuit switches rapidly when the light drops just a little. As with the other SIMD1 circuits, the 1M resistor across the solar cell can be changed to a smaller value (i.e. 100K) to adjust sensitivity and make it turn on even faster (with a corresponding loss in charge efficiency).

Parts list for basic circuit			
Part	Solarbotics	Digikey	Radio Shack
Storage capacitor	various	various	various
Solar cell	various	N/A	N/A
2N3904 Transistor	\$0.15, #TR3904	\$0.26, #2N3904-ND	\$0.07, #900-5456
FET			
2 X 1 MOhm resistors	@ \$0.20, #R1.0M	5 for \$0.28, #1.0MQBK- ND	@ \$0.07, #900- 0291

I suspect that the FET could be replaced with a PNP transistor

Source: [http://www.solarbotics.net/library/circuits/se\\_noct\\_SIMD1V3.html](http://www.solarbotics.net/library/circuits/se_noct_SIMD1V3.html)