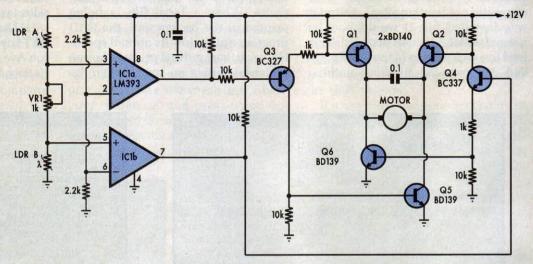# Simple solar tracker

This solar tracker circuit is an alternative approach to the unit described in the January 1995 issue.

It uses two light dependent resistors (LDRs) and a screen which, as the earth rotates, causes more sunlight to fall on one sensor. This turns on a comparator which causes a motor to rotate the solar panel until both sensors receive similar amounts of sunlight.

A voltage divider consisting of two 2.2kΩ resistors provides a +6V reference to the comparators. The other two inputs are provided by LDR1, LDR2 and VR1. When both comparator outputs are low, transistors Q1, Q3 & Q5 are turned off, while Q2, Q4 & Q6 are turned on, causing the motor to rotate clockwise. With both comparator outputs high, the situation is reversed and the motor rotates anticlockwise.

When the output of comparator A is high and comparator B is low, the motor is not energised. This occurs in the "dead zone" when the difference in sunlight falling on the LDRs is not sufficient to trip the comparators and this threshold is adjusted by VR1.

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