

Solar Tracker Electronics Project

ajay_bhargav, Tue Jun 22 2010, 01:35 am

[Solar Tracker](#)

A solar tracker is a device for orienting a daylighting reflector, solar photovoltaic panel or concentrating solar reflector or lens toward the sun. The sun's position in the sky varies both with the seasons and time of day as the sun moves across the sky. Solar powered equipment works best when pointed at or near the sun, so a solar tracker can increase the effectiveness of such equipment over any fixed position, at the cost of additional system complexity.

The hardware design is complete made from stuff that are available in any junkyard. Servo motor is taken from car door mirror system (also called Power windows system) and gear system is made from motorcycle chain small sprocket to rotate panel and a small camwood at servo side. You can see more images of gear system here. (**Solar Tracker Gear System**)

This solar tracker is built on a simple logic ICs, servo controller, Pulse Width Modulator and LDRs. Circuit is powered from a 12V battery. The two solar panels 15VAH each is connected to power up three 3W LEDs (switch controlled) and also charge a 12v 7AH battery. L298 and SG3525 are used to control servo motors and LDRs are used to detect the position of light source (sun).

Here is a working demonstration of Solar Tracker.

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All credit for this project goes to author Mansoor Mirza ([coolmirza143](#)). You can find all the discussion about this project in forum here. ([Solar Seeker or Tracker](#)).

I also announce a new category introduced to our download section, specifically for electronic projects that does not involve any controllers. Hope you will all contribute to this category. If you have any electronic project you can share it with us.