

# Single Axis Solar Tracker

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**Abstract:** *The pace of electricity consumption is rising every day, and people's reliance on traditional energy sources is growing. If it persists, use of traditional energy sources will cease quickly. Therefore, the timing is right to combine conventional and renewable energy sources. The cleanest and most sustainable renewable energy source is solar power. The conversion of solar energy into electrical power is possible using a solar photovoltaic (PV) panel.*

*Several variables, including sun irradiation, solar cell composition, surface temperature, and others, affect how quickly a solar photovoltaic panel produces energy. The solar cell generates more power the more sunshine it receives. Due to variations in the sun's location in the sky, a fixed state solar panel cannot receive the most sunlight during the daylight hour*

**Keywords:** Renewable Energy, Automatic Single Axis Solar Tracking System, Microcontroller, Solar Photovoltaic Panel, Solar Irradiance