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## **Development of Automatic Solar Tracking System**

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**Abstract:** The development of a solar tracking system aims to enhance the efficiency and effectiveness of solar energy utilization. By continuously tracking the movement of the sun, the system can ensure that solar panels are always positioned at an optimal angle to receive maximum sunlight. This not only increases the overall energy production but also reduces the reliance on fossil fuels and mitigates the impact of climate change. The design of the solar tracking system involves the use of sensors and motors to orient the solar panels towards the sun throughout the day. The system comprises a control unit that processes data from the sensors and activates the motors to adjust the position of the solar panels. The sensors are responsible for detecting the position of the sun and providing real-time data to the control unit. These sensors are typically light sensors or GPS modules that accurately determine the sun's position in the sky.

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