

# Sun-Tracking Solar Panel

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## **Abstract**

Fossil fuels cause pollution, damage to human health, and climate change. Renewable energy sources provide ways to generate power while keeping Earth healthy. Our project incorporates solar panels, motor, and light-dependent resistors (LDRs). Solar panels do not maximize the amount of energy that can be received from sun, when held at fixed angle. Solar panels track sun, so panels always face perpendicular to incoming sunlight. Using motor and light dependent resistors, solar panel will turn to face sun depending on difference of amount of sunlight that reaches each LDR.

## **1 List of Parts**

1. This is the first entry in our list
2. Arduino Uno
3. Breadboard
4. Solar Panels
5. Photoresistors (LDRs)
6. Motor
7. Battery
8. Wooden Base

## 2 Implementation

1. Photoresistors accept light
2. If one resistor receives more light than other, motor will turn solar panels toward photoresistor that is receiving more light.
3. Motor will turn with only 4 steps until difference of amount of sunlight between two LDRs is below certain value.

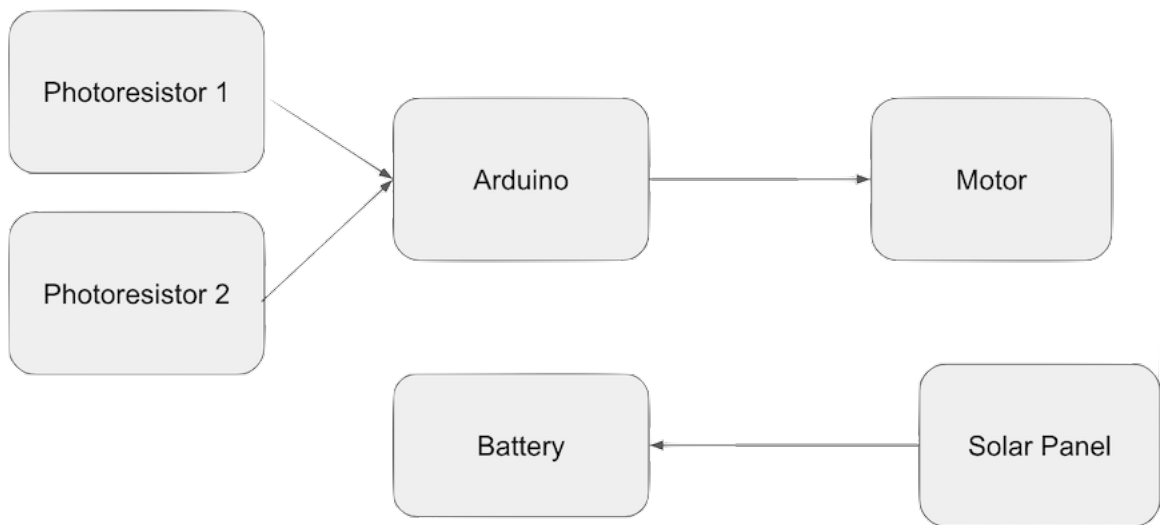


Figure 1: Block Diagram