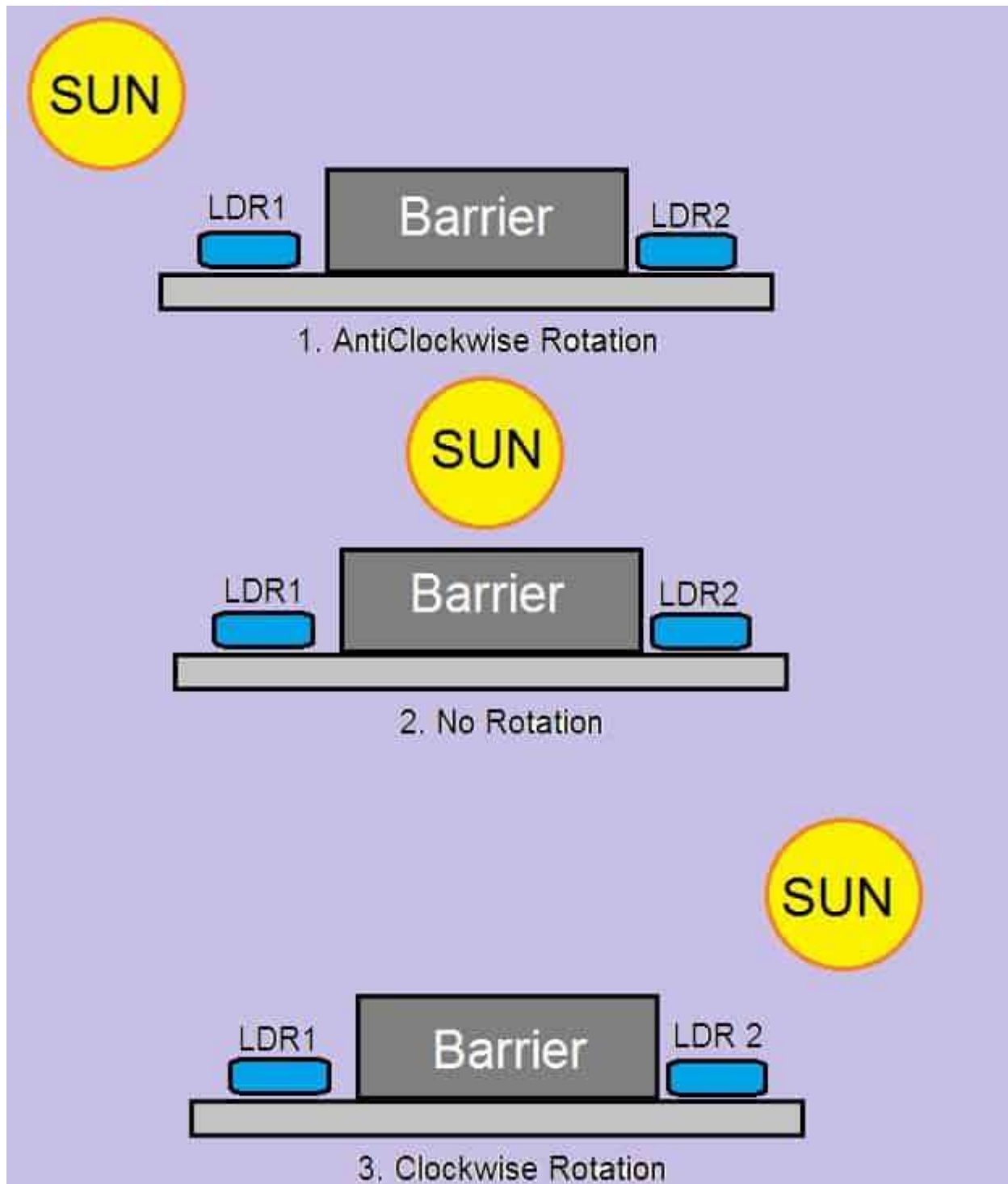


Report:

Two LDR's (Light Dependent Resistor) LDR1 & LDR2 are connected to Analog pins of the Arduino. A solar plate is attached in parallel to the axis of the servo motor and both the sensors are kept on the solar plate as shown in the figure above

The design & the arrangement is done in such a manner that the movement of the sun is from LDR1 to LDR2, as shown in the image below.



In hardware part, 2 light dependent resistor (**LDR**) has been used to trace the synchronize of sunlight **by** detecting brightness level of sunlight. For rotation

solar energy is one of the fastest growing industries in the world; today more than 65 GW energy is produced by solar power. Since solar energy is renewable, it is a good power source, especially for developing countries.

In this project, I am going to show you how to **make a solar tracker using Arduino Nano**. The solar panel tracker is designed to follow the sun movement so that maximum light intensity hits on the solar panel, thus increasing the power efficiency.

Use of a solar tracker circuit in the field of energy production will increase its efficiency by almost 25%. This system can also be successfully implemented in other solar energy based projects water heaters and steam turbines.

There are basically two types of Arduino sun trackers. One of them is the single axis solar tracker and the other is dual axis. Single axis solar tracking system moves the solar panel from east to west in a day to point in the direction of the sun. Dual axis solar trackers uses the motor to move the solar panel in all four directions (North-South & East-West).

South to north is not a viable or big movement, because this movement covers only 20 degrees in half year and in remaining half year it moves from north to south and we can set this, manually in a week. Since the East-West tracking is more important, I will be explaining more of the single axis solar tracking