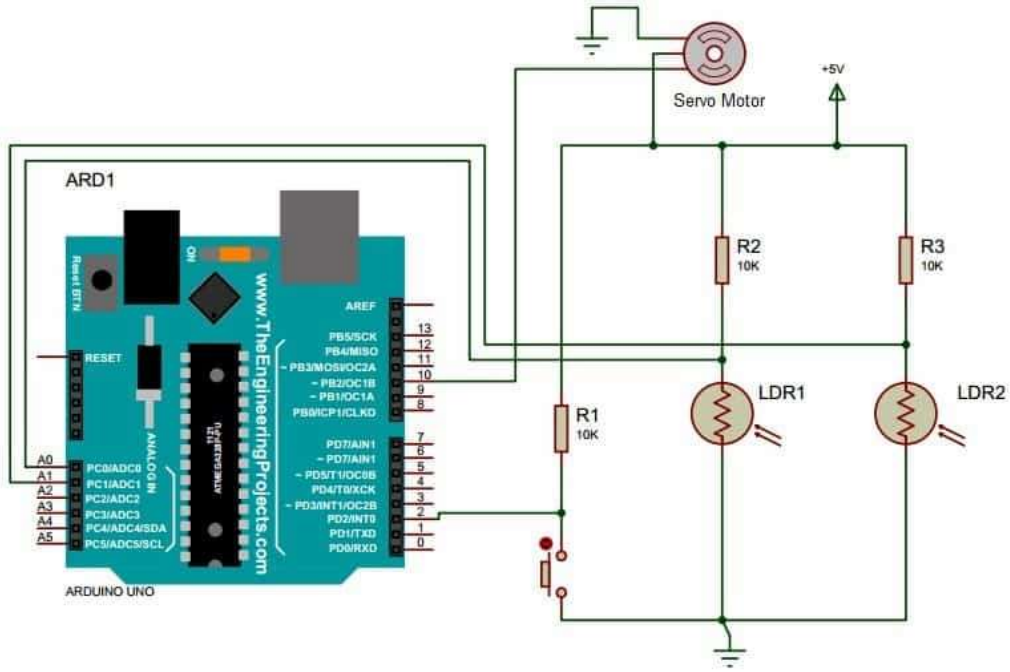
Circuit Diagram

The circuit diagram for the Arduino Based Solar Tracker Using LDR & Servo

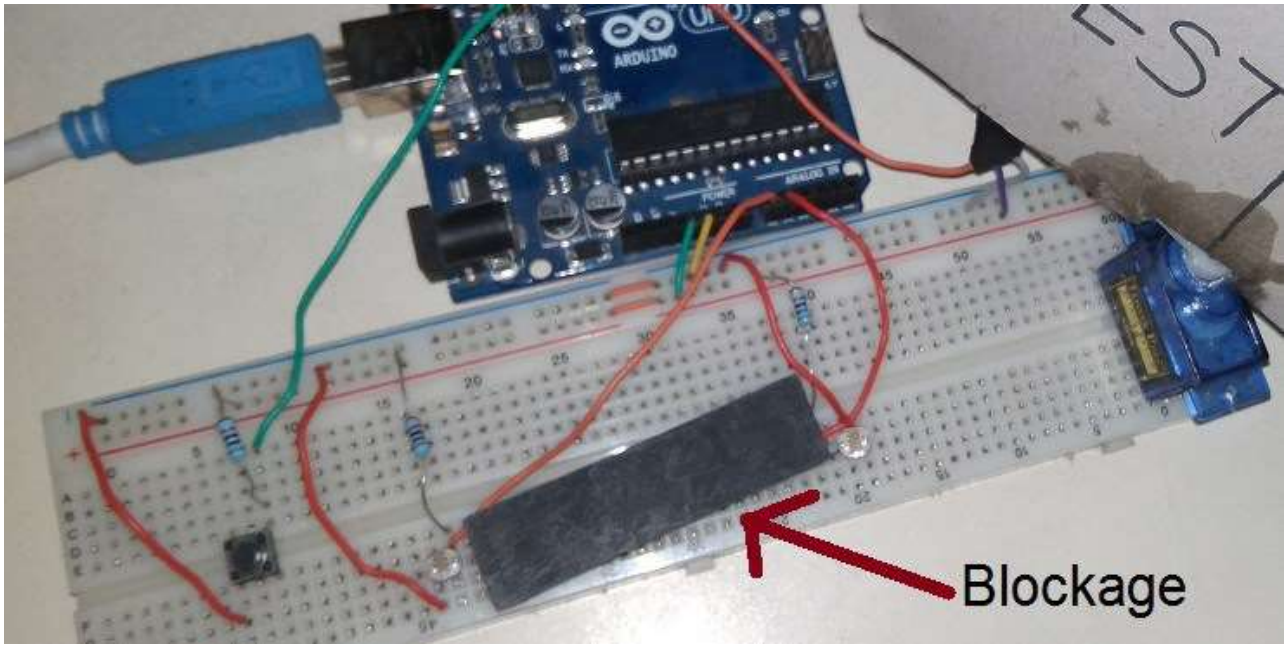
Motor is given below. Assemble the circuit as shown below.



Project Design & Consideration:

1. Fix the cardboard at the top of the Servo Motor that will face towards the SUN and rotate:

2. Put a Blockage between the 2 LDR by keeping it at distance of at least 5 cm.

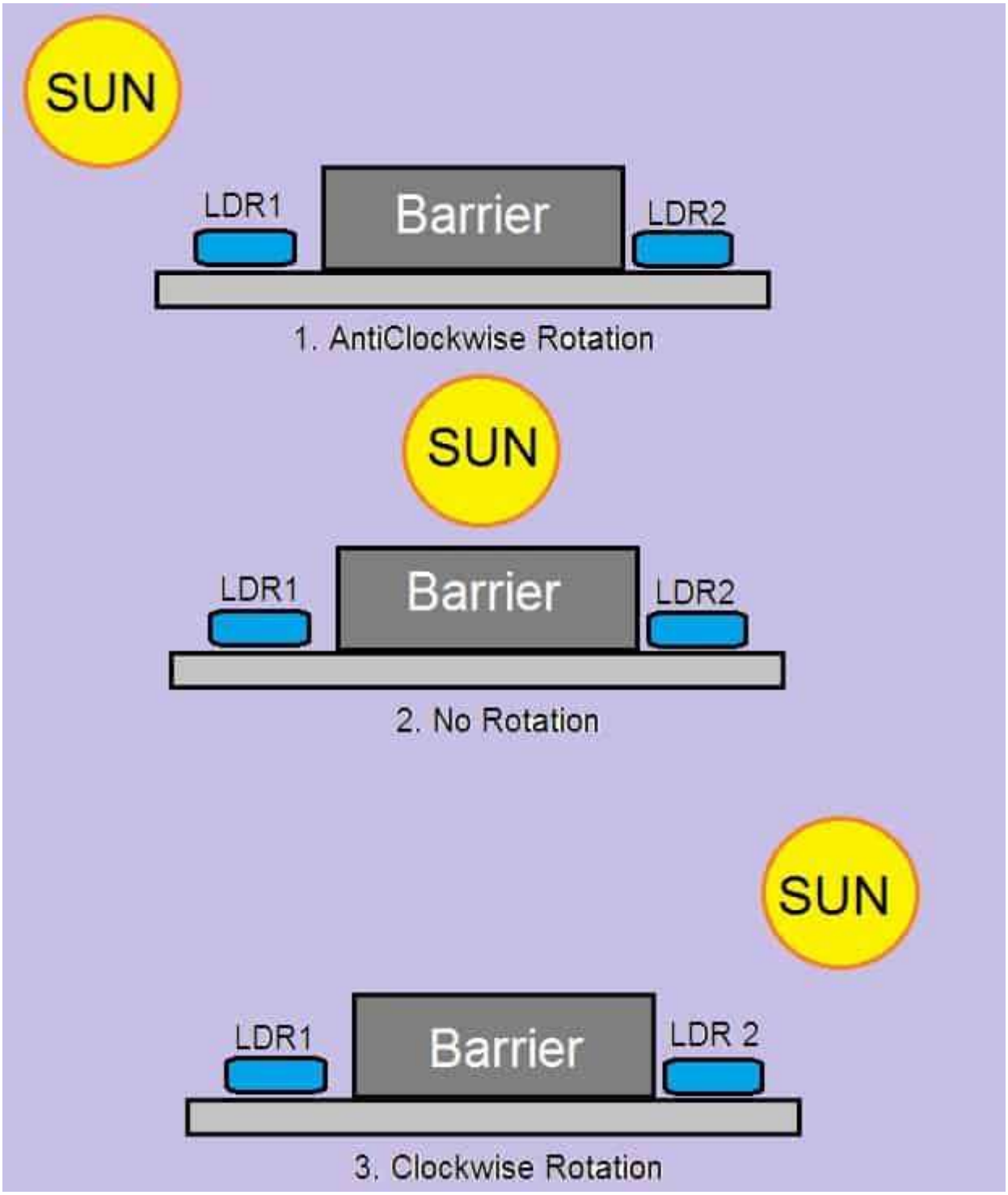


Working of the Project:

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.



There are three cases that are to be followed:-

Case 1: Sun is in the left side

Light on LDR1 is high because the shadow of barrier falls on LDR2 so solar plate moves clockwise.

Case 2: Sun is in right Side

Light on LDR2 is high because the shadow of barrier falls on LDR1 so solar plate movie anticlockwise.

Case 3: Sun is in the Center

Light on both LDR's is equal so, plate will not rotate in any direction.