IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 2, February 2024

Sun Tracking Solar System

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Abstract: *Solar energy has become an increasingly important and popular renewable energy source. By using a solar tracking system, we can produce an abundance of energy and improve the efficiency of solar panels. The solar panel's efficiency lies in its perpendicular proportionality with the sun's rays. Although cheaper options are also available, its installation charge is high. A prototype solar panel is discussed in this paper based on the sun's rays as the reason for its design and construction. Arduino is used as the main control circuit. As a result of the programming of this device, the LDR sensor, when it detects sun rays, will provide direction to the Servo Motor in order to move the solar panel. Consequently, the solar panel is positioned so that it can receive the maximum amount of sunlight*

Keywords: ESP-32, LDR Sensor, Solar Panel, Servo Motor, Invertor, Display Panel

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