PHOTON
(Light Tracking System)

Ahmed Allehebi, Muteb Al-Harthi , Muayyad Al-Hashemi , Khaled Al-Daady
Supervised by Prof. Saleh Basalamah
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جامعة أم القرى
UMM AL-QURA UNIVERSITY

Inspiration

The Sakaka Solar Power Plant consists of 1.2 million solar panels arranged over 6 km² of land. The site was meticulously selected by a specialized Saudi technical team to ensure the highest possible quality.

PHOTON?

PHOTON is the is an elementary particle that is a quantum of the electromagnetic field, including electromagnetic radiation such as light, which is the basic ground and the most effective element in this project.
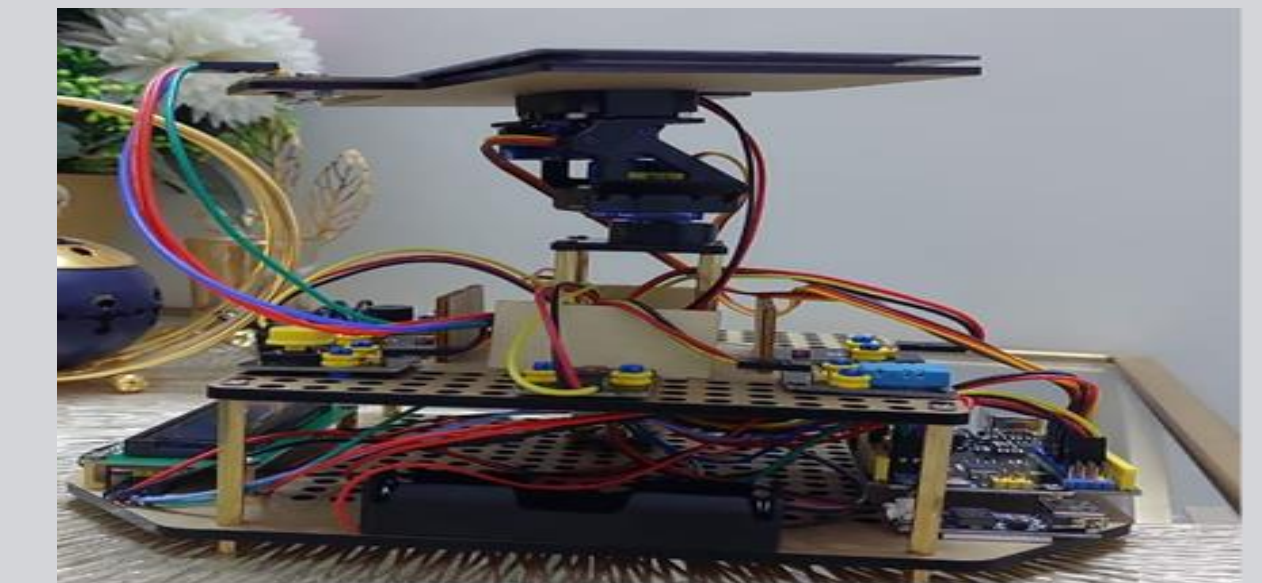
Objectives

• The solar panel in the project will track and follow light source.

• The project will display the degree of temperature, humidity, light intensity on an LCD screen.

Methodology
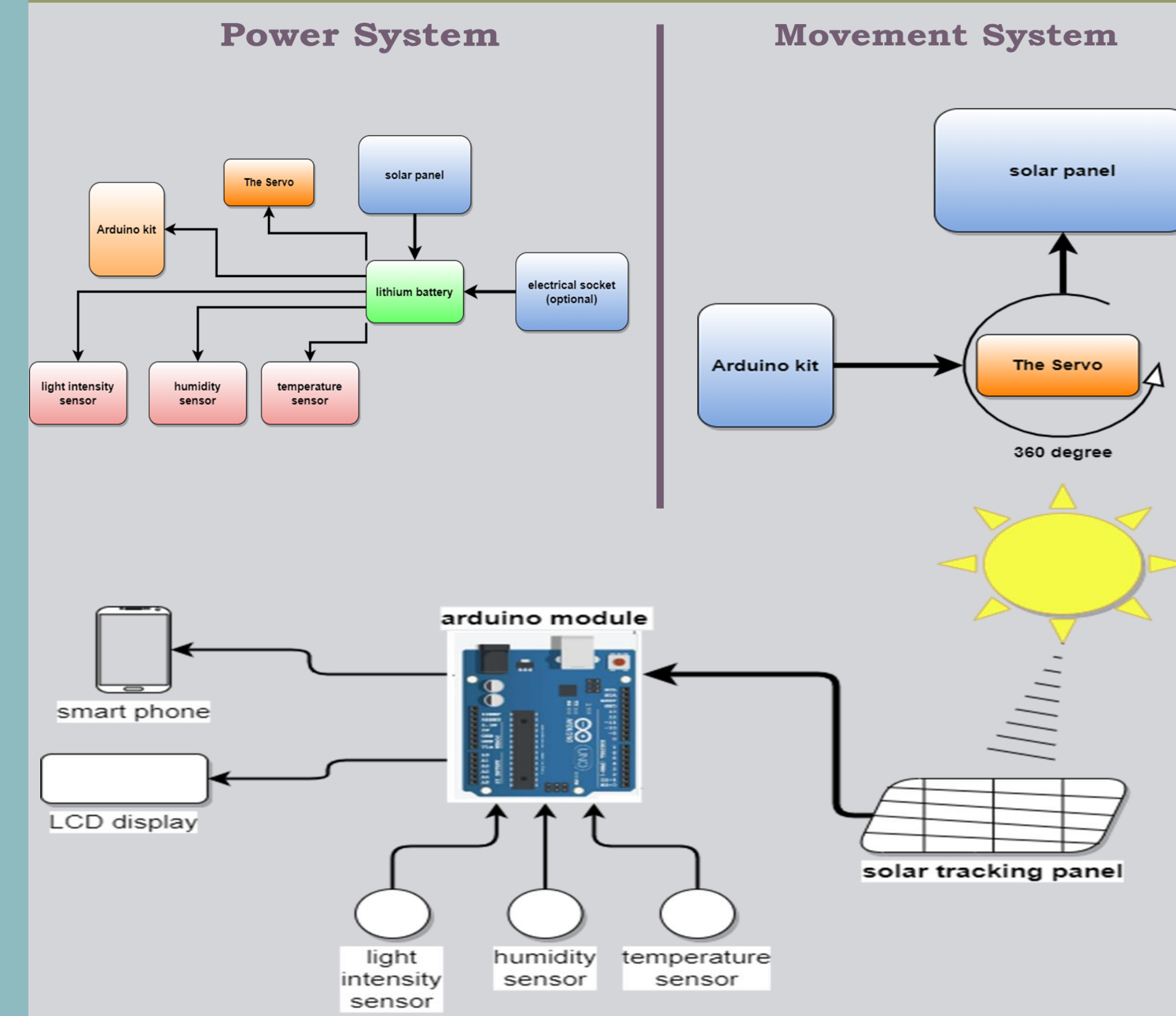
Results

After uploading the test code and powering it up, the servos rotate to the initial angle. And when the ambient light sensor detects changes in light intensity, servos rotate to the position where the light is the strongest and LCD1602 shows the value of the light intensity and temperature and humidity detected by the BH1750 and XHT11 respectively.

Abstract

The light tracking system launched based on Arduino, aims to convert light energy into electronic energy, charging power devices and, displays the surrounding environment temperature and humidity, The solar tracker controlled automatically by, Photoresistor and Digital Light Intensity Modules, which helps to gain more energy using solar panel, its rotation movements controlled by servos.

Conclusion

Our project is an alive example of the multiple services that AI presents. by applying the use of different source of energy, to give more option to the user based on different situations, which gives our project a great probability to expand in our community, to achieve the most important reasons for any project which is **"Making human lives easier"**.

Future work

- Maximize the battery to work efficiently for more time and having better performance.
- Add a payment methods to enable charging ports for profit use.
- Connect it to an phone application to present the reads of sensors online.
- Improve the exterior design of the product by a professional design engineers.
- Add wheels on the product and wireless control to move it around easily.

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