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Design of portable solar water pump



Overview

This paper proposes a solar-powered portable water pump (SPWP) for IoT-enabled smart irrigation system (IoT-SIS). A NodeMCU microcontroller with a Wi-Fi interface and soil moisture, temperature, and h.

What is a solar-powered water pump?

A solar-powered water pump is a water pump that uses energy generated by a solar panel, so it is cost-effective and environmental-friendly. The solar water pump can run continuously for most of the daytime, directly from solar cells and during nighttime using a battery. Besides, this solar water pump is portable and free of power lines.

How a portable solar water pump works?

The portable solar water pump was placed in the direction that sunlight incident directly on the solar panel. The solar water pump was connected and controlled by the application on the mobile phone. 3.6. System operational procedure.

Can a solar-powered portable water pump control IoT-enabled smart irrigation system?

An IoT smart irrigation system (IoT-SIS) is developed to monitor the surroundings and control the pump over the Internet. The IoT-SIS-SPWP system is implemented in a real environment for practical analysis and functionality testing. This paper proposes a solar-powered portable water pump (SPWP) for IoT-enabled smart irrigation system (IoT-SIS).

What is a solar pumping system?

Solar pumping system is an integration of different components which generates power from the sun and operates on direct current to drive water from a particular source over a distance to another location.

Design of portable solar water pump



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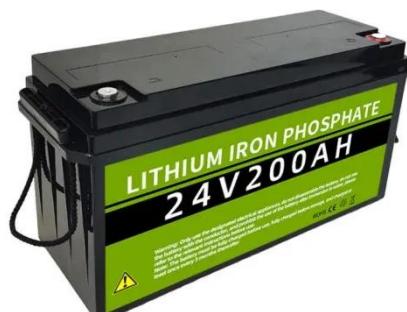
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