

Experimental Solar Energy System Aims to Increase Power Output Per Panel Area

An independent engineering project on Kickstarter is exploring a new solar panel and tracking system design intended to increase long-term power output



New Albany, Ohio Mar 5, 2026 (Issuewire.com) - A new Solar Energy System project launched on Kickstarter by inventor Bob Dildine (Robert Dildine) is testing an alternative approach to photovoltaic system design, focusing on how panel orientation, materials, and system architecture can affect real world energy generation over time.

Unlike conventional rooftop solar installations, the system is built around flat, square solar panels mounted on a dual-axis tracking structure, designed to continuously orient toward the most productive available sunlight throughout the day. The tracking mechanism operates in multiple software driven modes, including a search function to locate optimal light conditions, an active tracking mode for continuous adjustment, and a flat safety mode that reduces wind loading during storms or nighttime conditions. Each panel measures approximately one square yard and is designed to operate as part of a larger square array. Key structural components including the stanchion, frame, and panel housings are planned to be fabricated from stainless steel, a material selected for corrosion resistance and long service life. According to the project creator, the architecture is intended to support operation over multiple decades, potentially approaching a century with proper maintenance.

Testing Beyond Conventional Benchmarks

In earlier proof-of-concept testing, the prototype system constructed from aluminum reportedly exceeded the traditional 120 watts per square meter reference scale on multiple occasions. Dildine notes that the prototype surpassed this benchmark 27 times, based on measurements using open-circuit voltage and short circuit current, a method historically used by photovoltaic manufacturers. While modern efficiency standards now rely on full spectrum solar irradiance measurements supported by organizations such as ASTM, NREL, and NASA, the project continues to reference the earlier visible-light-based standard to maintain consistency with its original data set. The creator emphasizes that the current build aims to produce more frequent exceedances under comparable conditions while also generating more comprehensive performance data.

Focus on Longevity and Data Collection

The current Kickstarter campaign will fund a new build using stainless steel construction and higher-quality photovoltaic cells, along with upgraded testing equipment. The objective is to determine fabrication costs, measure output across varying weather conditions, assess reliability, and calculate long term payback timelines. The system's design acknowledges that while mechanical structures are intended for extended service life, electronic components and motors will require periodic maintenance or replacement, similar to other engineered systems. Due to its complexity, the project is expected to carry a higher upfront cost than traditional solar solutions, with value emerging over extended operational periods rather than rapid returns. Automated test equipment is planned as part of the project, enabling continuous data collection and more accurate performance projections. According to the creator, improved data transparency is a key goal of the campaign.

Early Stage Campaign

The Solar Energy System is currently in the early stages of its Kickstarter campaign, with a \$100,000 funding goal and testing projected to continue through 2026. The project ships within the United States and is positioned as an experimental build focused on validation rather than mass-market deployment.

More details about the Solar Energy System, including technical background and campaign updates, are available on the project's Kickstarter page:

campaign link: <https://www.kickstarter.com/projects/577221721/solar-energy-system>

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