Solar Panel Surface Cleaning Method

Tech ID: 34162 / UC Case 2023-710-0

BRIEF DESCRIPTION

A novel self-powered mechanical cleaner designed to enhance the efficiency of solar panels by regularly removing dust and debris.

FULL DESCRIPTION

Researchers at UCI have developed an innovative solution to maintain solar panel efficiency through a self-powered mechanical cleaner. The device is engineered to automatically remove dust and other deposits from the surface of solar panels, ensuring optimal operation and energy conversion. Unlike existing methods that require manual labor or suffer from durability and reliability issues, this device offers an easy-to-install, maintenance-free, and cost-effective alternative for solar energy users.

SUGGESTED USES

- Rooftop solar installations
- Solar farms

ADVANTAGES

- Automatically keeps solar panels clean, ensuring maximum efficiency.
- Easy and low-cost installation on existing solar panels.
- Durable and maintenance-free
- Operates at night, preventing interference with energy collection.
- Reduces the risk of damaging panels compared to manual cleaning methods.
- Cost-effective solution compared to manual or other patented automatic cleaning methods.

PATENT STATUS

Patent Pending

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OTHER INFORMATION

CATEGORIZED AS

- **Energy**
  - Solar
- **Engineering**
  - Other

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