



**SunClean**

**SunClean Tech Pvt. Ltd.**



Robotics for Reliable Solar Power  
Powering a Cleaner, Smarter Future

[www.SunClean.in](http://www.SunClean.in)



# SunClean Handy – V1

## Manual Cleaning Support System



Parameter	Specification
Cleaning Type	Manual + Wet Cleaning
Brush System	Dual Rotary Brushes
Operation Mode	Battery / External
Weight	Lightweight / Portable
Water Usage	Controlled Flow System
Application	Rooftop / Small Solar Plants
Power Source	Electric (Single Phase)

- Entry-level cleaning solution for basic operational needs
- Lightweight, practical, and easy to handle across rooftop plants
- Dual-Rotary Brush System ensures deep, uniform cleaning
- Wet Cleaning Mechanism ensures deep cleaning
- Plug-and-Play Operation with battery option, ideal for daily use

### Why SunClean Handy – V1 ?

- Ideal for small solar plants (<1 MW)
- Lowest entry cost for solar cleaning automation journey
- Quick deployment without technical complexity
- Reliable performance for daily cleaning operations

# SunClean Portable – V2

## Semi-Automatic Portable Cleaning Robot



Parameter	Specification
Cleaning Type	<b>Semi-Automatic + Wet Cleaning</b>
Control System	Push-Button Operation
Sensor System	Edge Detection Sensors
Mobility	Portable / Modular
Deployment	Multi-Table Compatible
Water Usage	Controlled Wet Cleaning
Power Source	Battery / Electric
Additional Feature	Optional Trolley System

- Push-button control system enables simple manual operation
- Integrated edge sensors ensure automatic stop at boundaries
- Portable modular design supports multi-table deployment flexibility
- Wet cleaning option for deep cleaning performance
- Optional trolley system enables easy lifting and repositioning

### Why SunClean Portable – V2 ?

- Ideal for medium-scale solar plants (1 MW - 20 MW)
- Entry into automation without high capital investment
- Flexible usage across multiple solar tables
- Safe and efficient cleaning with minimal training

# SunClean Hybrid – V3

## Time-Based Operating Cleaning Robot



Parameter	Specification
Cleaning Type	Fully Autonomous Cleaning
Operation Mode	Time-Based Programmable
Battery Type	LiFePO4 Battery
Charging System	Integrated Solar Panel
Sensor System	Edge Detection Sensors
Docking	Dedicated Parking Platform
Control Requirement	No App Required

- Programmable Time-Based operation enables scheduled cleaning cycles
- Integrated solar panel charges onboard LiFePO4 battery during operation
- Edge detection sensors ensure automatic stop at panel boundaries
- Dedicated docking platform ensures safe parking and system readiness
- Fully autonomous operation without dependency on mobile application

### Why SunClean Hybrid – V3 ?

- Ideal for medium to large scale solar plants
- Fully automated cleaning without operational complexity
- Zero dependency on external control systems or apps
- Sustainable, solar-powered operation reducing energy costs

# SunClean Infinity – V4

## Fully-Automatic Robotic System



Parameter	Specification
Cleaning Type	Fully Automatic Robotic Cleaning
Control System	IoT-Based Platform
Battery Type	LiFePO4 Battery
Charging System	Integrated Self-Charging
Communication	Wireless
Safety Rating	IP65
Monitoring	Remote Dashboard Control

- Fully-Automated cleaning with dedicated IOT Based Platform
- LiFePO4 battery for long working with integrated self-charging
- Designed for large-scale and performance-driven plants
- Reduces operational downtime and labour dependency
- Long range communication system with IP65 safety

### Why SunClean Infinity – V4 ?

- Ideal for utility-scale solar plants (>20 MW)
- End-to-end automation with intelligent system control
- Real-time visibility into cleaning operations
- Maximum energy yield through consistent performance

# SunClean Rail-Bot – V5

## Track based Cleaning Rail-Bot



Parameter	Specification
Cleaning Type	Automated Rail-Based Cleaning
Mobility	Rail Track Mounted System
Control System	IoT-Based
Navigation	Rail-Guided + Sensor-Based
Operation Logic	Sequential
Coverage	Multi-Table
Power Source	Battery / Hybrid System

- Rail-mounted robotic system with dedicated IOT Based Platform
- Automated table-to-table traversal using integrated rail mechanism
- Sequential row cleaning with programmed return path logic
- Centralized mobility enables multi-table cleaning with single unit
- Sensor-based navigation ensures accurate positioning and operation

### Why SunClean Rail-Bot – V5 ?

- Ideal for utility-scale solar plants (>50 MW)
- One robot manages multiple solar tables efficiently
- Ideal solution for large-scale automation and cost optimization
- Maximizes cleaning coverage with minimal infrastructure overhead

# SunClean APMC – V6

## Annual Cleaning Maintenance Contract



Parameter	Specification
Service Type	Annual Contract
Execution Mode	On-Site Manpower
Cleaning Frequency	Monthly / Customized
Equipment Used	SunClean V1-V5 Machines
Coverage	Rooftop to Utility-Scale Plants
Contract Duration	1 Year (Extendable)

- Annual contract-based cleaning ensures consistent plant efficiency
- On-site trained manpower deployed with advanced cleaning machines
- Scheduled maintenance cycles aligned with site-specific dust conditions
- Performance-driven service model maximizing energy yield and reliability

### Why SunClean APMC – V6 ?

- Ideal for all kind rooftop or ground mounted solar plants
- Ideal clients seeking OPEX-based cleaning solutions
- Guaranteed cleaning consistency throughout the year
- No need to manage manpower, equipment, or scheduling
- Direct impact on energy generation and ROI




## About Us


SunClean Tech Private Limited develops advanced robotic solutions for efficient solar panel cleaning.


Our innovative, water-saving systems improve energy output, reduce operational costs, and enable smart, sustainable solar maintenance across all plant scales.

## Contact Us

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