

## Solar-LIT Intelligent PV Robotic Solution



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# Intelligent PV Robotic Solution

- ↑ Efficient and Reliable
- ↑ Increase Power Generation
- ↑ Worry-free O&M



Empower Photovoltaics to Take the Lead

# The Leading Supplier of Intelligent PV Robotics

Xiamen Lanxu Intelligent Technology Co., Ltd. (referred to as Solar-LIT), founded in 2017, is a leading global provider of intelligent robotic solutions for the entire PV plant lifecycle. Through module installation robots, cleaning robots, smart O&M platforms, and supporting services, the company provides an integrated solution from installation to O&M, effectively increasing power generation efficiency, reducing operational costs, and upgrading PV O&M intelligence.

Solar-LIT insists on independent innovation and in-house manufacturing of core components, holding multiple industry-first technologies. Its products are certified by SGS, CE, and TÜV, compatible with global mainstream mounting systems, with a cumulative installation capacity exceeding 40.6 GW. The company has been awarded titles such as "National High-Tech Enterprise," and national "Smart PV Pilot Demonstration Enterprise." It also actively participates in drafting industry standards and holds numerous patents. Currently, Solar-LIT has established 7 global service centers and a joint venture in Saudi Arabia. With a mature global business network, Solar-LIT is accelerating its international layout, committed to becoming the world's most trusted partner for intelligent PV O&M.

**40.6 GW** Installed Capacity

**35+** Supply for Country / Regions

**7.6WM<sup>2</sup>** Factory floor area



\*The above data is as of Q1 2026. Relevant product data are obtained from tests conducted by Solar-LIT Laboratory and are for reference only.

## Our Mission

**Empower Photovoltaics to Take the Lead**

## Authoritative Certifications

SGS / CE / TÜV / CGC / Saber  
 ISO 9001: Quality Management | ISO 14001: Environmental Management  
 ISO 27001: Information Security | ISO 45001: Occupational Health & Safety  
 GB/T 29490-2013: Intellectual Property Management



## Fully Automatic Railed Cleaning Robot

Reliable, high-frequency cleaning for GW-scale power plants

Tile

Metal Roof

Frameless



Rail-mounted robot operating in desert



### High Efficiency

99.5+% dust cleaning efficiency every day at low cost, proven by track records over years



### Excellent Mobility

Capable of 30° slope climbing & 45° twist, adaptable to undulating terrains and installation offsets



### Self-Powered

Powered by self charging modules - independent to the plants

### Parameter - Automatic Railed Cleaning Robot

Cleaning Speed	18±2 m/min	Module Tilt	0 ~ 60°
Cleaning Efficiency	≥ 99.5%	Twist Angle (optional)	± 45°
Cleaning Method	Dry cleaning	Installation Type	Tracker / Fixed Tilt
Cleaning Frequency	On demand	Slope Climbing	30°
Charging Method	Self-charging panels on top of robots / at docking stations	Slope Climbing for Effective Cleaning	18°
Protection Rating	IP65	Vertical Obstacle Crossing	75 mm
Anti-corrosion Rating	≥ C4	Horizontal Obstacle Crossing	50 mm

## Portable Solar Roof Cleaning Robot

Flexible adaption to complex layout of C&I solar

Residential

Small-scale

Rooftop



Portable cleaner operating on rooftops



### Easy transportation between roofs

Lightweight design , detachable roller brush



### Compatible with dry and water cleaning

97% cleaning efficiency to maximize energy yield



### Multi-technology safety protection

3x anti-fall mechanism, AI recognition+depth camera+ultrasonic sensor to detect edges

### Parameter - Portable Portable Cleaning Robot

Cleaning Method	Dry Cleaning	Water Cleaning	Gap Crossing	80 mm
Coverage Rate	950m <sup>2</sup> /h	800m <sup>2</sup> /h	Obstacle Crossing	40 mm
Operating Runtime	4 hours	3 hours	Protection Rating	IP65
Cleaning Efficiency		97%	Anti-corrosion Rating	C4
Brush Length		1.2 m	Ambient Temp. (Operation)	Dry Cleaning: -20 ~ 60°C Water Cleaning: 0 ~ 60°C
Brush Rotation Speed		130 RPM	Dimensions (L * W * H)	825 mm * 670 mm * 260 mm
Module Tilt		0~12°	Main Body Weight	31 kg
			Brush Weight	6.4x2 kg

## Solar module Installation Robot

1.5x Efficiency, 50% Cost Reduction – Accelerating Utility-Scale Solar Construction

Ground

Carpport



### Peak Efficiency, Installs 100+ modules/hour

Delivers 1.5x faster deployment than conventional methods, significantly shortening project schedules.



### Maximum Precision – Lower cost, higher safety

Intelligent control ensures repeatable, accurate placement—reducing labor, rework, and installation cost.



### All-Terrain & All-Weather Reliability

Works reliably across terrains, elevations, and weather—supports fixed-tilt and tracker systems.



InstallerBot operating on complex terrain

### Parameter - Module InstallerBot

Installation efficiency	30 s / module	Climbing angle	35° (no-load)
PV module identification	3D depth camera	Operation mode	Human-Piloted
PV module damage rate	< 0.02%	Overall vehicle dimensions	7900mmx2100mmx2550mm
Load capacity	≤ 37 PV/ 1.5 T	Overall machine weight	7T
Robotic arm length	5.8 m	Battery capacity	24V /120Ah
Power type	Diesel	Operating temperature	-20°C ~ +60°C
Operating angle	-90 ~ 90°	Altitude	≤ 3000 m
Travel mode	Track drive	Max. wind speed	15m/s
Travel speed	2.5~ 4.5 km/h	Protection level	IP 65
Suction cup diameter	12.5 cm	Bracket type	Tracker / Fixed

## SCADA System for Intelligent Monitoring & Control

### 1 Real-time Monitoring

Complete control over cleaning status, robot location, battery, and faults, enabling quick anomaly detection and response

### 2 Effortless Maintenance

Integrate data from weather, power stations, MMS, and robots for real-time operational strategy.

### 3 Effortless Maintenance

Automatic alerts for part replacements, simplifying maintenance work.

### 4 Efficient Communication

Simultaneous command over thousands of robots with sub-second response times.



### 5 Flexible Deployment

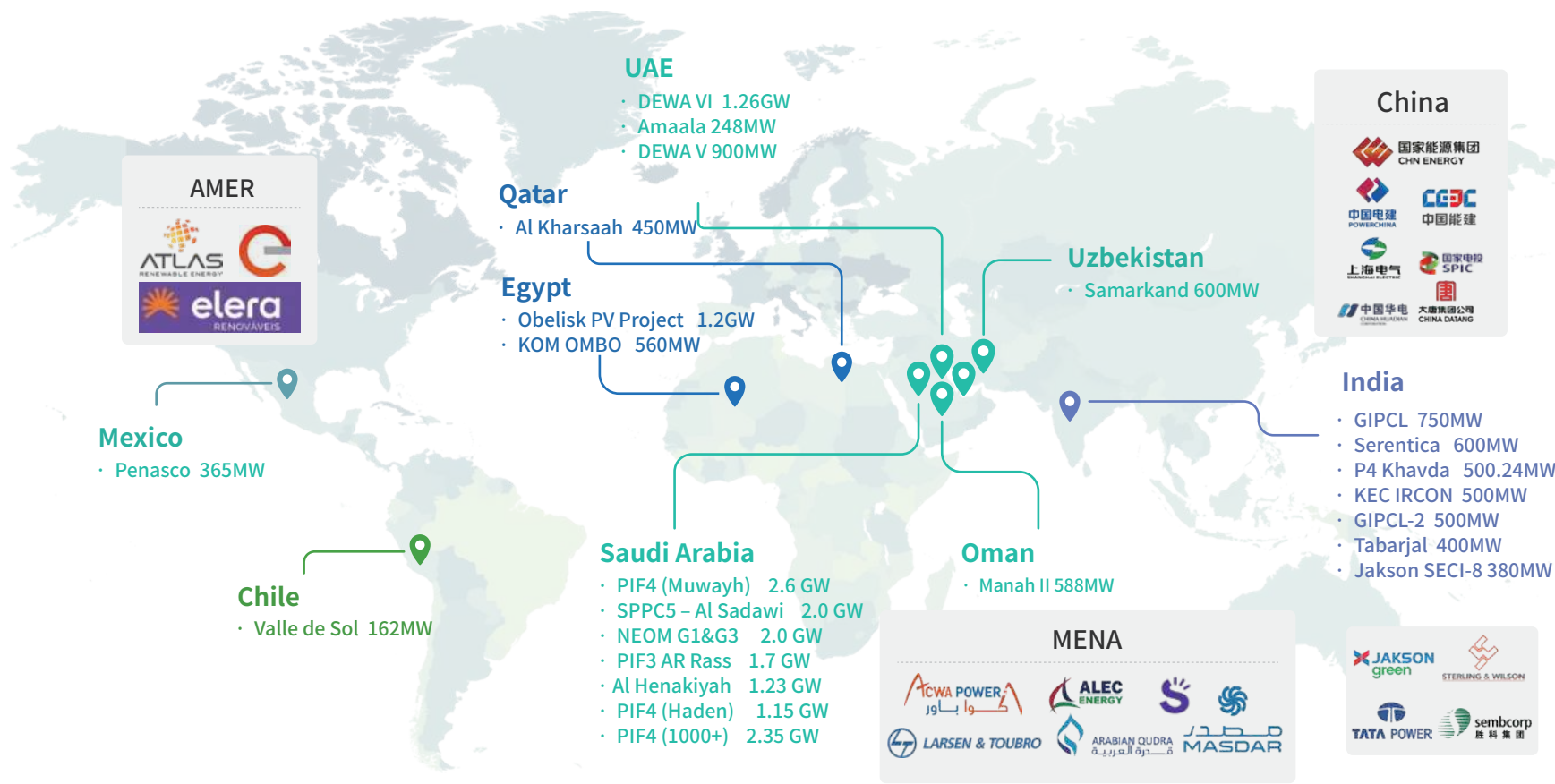
Local or cloud deployment, to achieve the optimal balance between data control and usage convenience.

### 6 Multi-Platform Access

Accessible via Web and APP, manage cleaning tasks anytime, anywhere.

# Global Applications

Trusted by Top-Tier Clients, Localized for Every Market



# Empowering 40.6GW Solar Plants

<p><b>PIF 3 RASS2</b> <b>KSA 1300MW</b></p> <p>Represent Saudi Arabia's largest solar development initiative to date.</p>	<p><b>SPPC5 - Al Sadawi</b> <b>KSA 2000MW</b></p> <p>Support Saudi Arabia's goal of deriving 50% of its electricity from renewable energy sources as outlined in the "Vision 2030"</p>	<p><b>Sudair</b> <b>KSA 1800MW</b></p> <p>4000+ robots installed and commissioned within 2 months</p>	<p><b>DEWA V</b> <b>UAE 900MW</b></p> <p>The first utility-scale solar plant to reach COD adopting both trackers and automatic cleaning robots</p>
<p><b>Scatec Obelisk</b> <b>Egypt 1125MW</b></p> <p>This is Egypt's first large-scale solar-plus-storage project and represents a significant milestone in the country's energy transition strategy.</p>	<p><b>Sinopec NW Oilfield</b> <b>China 50MW</b></p> <p>185 dry-hanging cleaning robots, efficiently delivered within 30 days</p>	<p><b>Jeddah</b> <b>UAE 388MW</b></p> <p>Innovative design allows the robots to cross 600mm gaps without flexible bridges</p>	<p><b>Manah II</b> <b>Oman 588MW</b></p> <p>Fully automatic cleaning to avoid soiling during heavy sandstorms in spring and autumn</p>
<p><b>DEWA VI</b> <b>UAE 1800MW</b></p> <p>The project will provide clean energy to approximately 540,000 Dubai households and reduce carbon emissions by 236,000 tons annually.</p>	<p><b>Guoshen Zhundong Power</b> <b>China 300MW</b></p> <p>Mass shipment of the first batch of dry-hanging snow cleaning robots</p>	<p><b>Huolin Gol</b> <b>China 100MW</b></p> <p>Operates stably in -30°C extreme cold environments and robustly handles module mismatch</p>	<p><b>Huadian Salt-Solar</b></p> <p>C5-M corrosion protection grade, safeguarding efficient power generation for offshore photovoltaic systems</p>

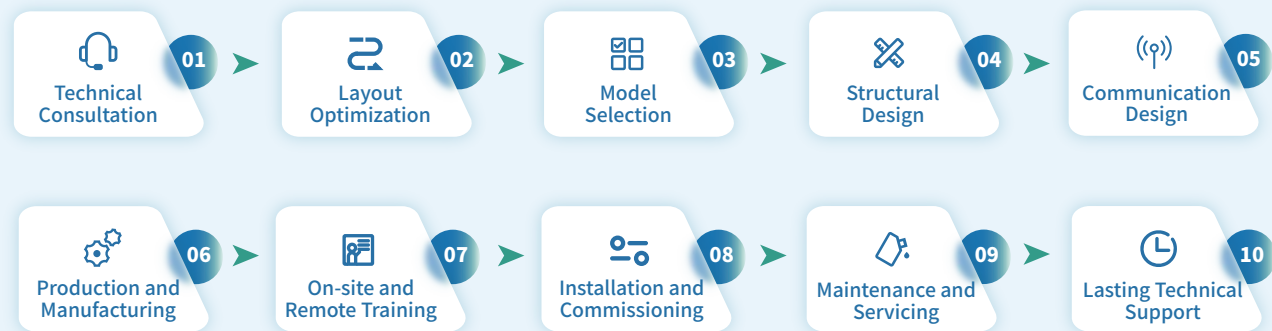
## Reliability Beyond 30 Years

- Lightweight design
- With soft roller brushes
- Fully compatible with mainstream modules and MMS



## Empower Photovoltaics to Take the Lead

## Full Lifecycle Service



- Spare Parts
- Technical Consulting
- Upgrades & Retrofit
- O&M Service
- Remote Support