



SCHWARZSTONE

G M B H

PRODUKTKATALOG 2026

XYT SOLARREINIGUNGSSYSTEME

PV-REINIGUNGSROBOTER, BÜRSTEN & ZUBEHÖR

Professionelle Reinigungslösungen für Photovoltaikanlagen - präsentiert von Schwarzstone GmbH als offizieller Vertriebspartner für XYT Produkte.

PV-REINIGUNG

ROBOTER

BÜRSTEN

SERVICE

www.schwarzstone.de

Schwarzstone GmbH | Offizieller XYT Vertriebspartner



Offizieller Vertriebspartner

XYT Solarreinigungssysteme für Europa

Schwarzstone GmbH präsentiert professionelle PV-Reinigungssysteme von XYT für Solarparks, Dachanlagen und schwer erreichbare Modulflächen. Der Fokus liegt auf zuverlässigen Robotern, Bürsten- und Reinigungssystemen sowie technischer Unterstützung für B2B-Kunden, Projektgeschäft und Servicepartner in Europa.

PV-Reinigungsroboter

Für Solarparks, Dachanlagen und schwer erreichbare Modulflächen.

Bürsten & Maschinen

Mobile Systeme für manuelle und halbautomatische Reinigung.

Service & Projektgeschäft

Beratung, Beschaffung und technische Unterstützung für B2B-Kunden.



Produktbereiche

01

X8

Autonomer Raupenroboter für große PV-Flächen

02

X7

Ferngesteuerter PV-Reinigungsroboter

03

X6

Hängendes Reinigungssystem für geneigte Anlagen

04

X9

Smart O&M Roboter mit Reinigung und Inspektion

05

X5

Rollbürsten-Reinigungsmaschine

06

X4

Doppelkopf-Solarreiniger

07

X3

Einzelkopf-Solarreiniger

08

X2

Manuelle Teleskop-Reinigungsbürste

09

Komponenten

Kernkomponenten, Zubehör und Konfiguration

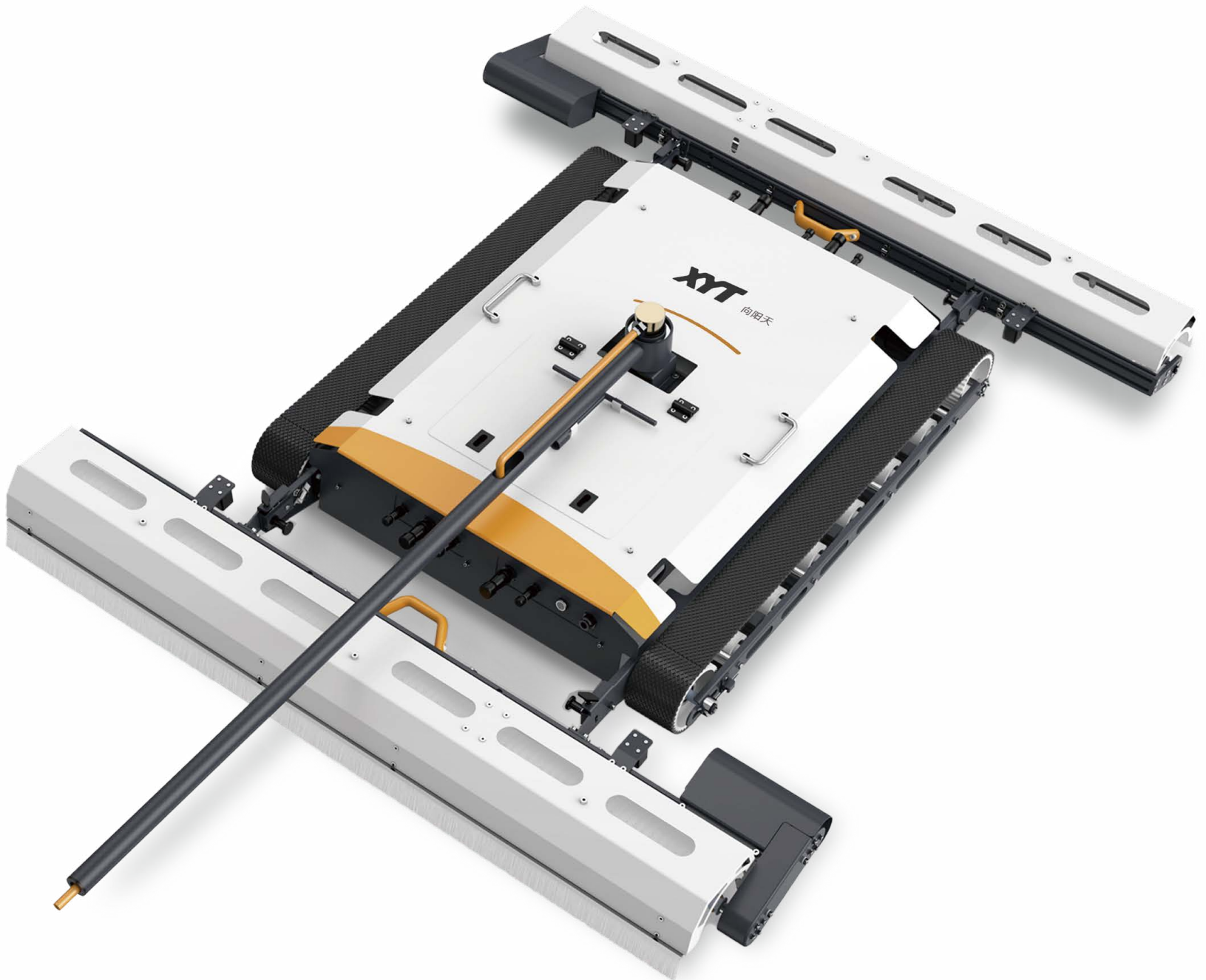
10

Service

Beratung, Beschaffung und Projektunterstützung

Hinweis

Die technischen Produktseiten bleiben als Herstellerangaben erhalten. Schwarzstone GmbH unterstützt bei Auswahl, Beschaffung, Projektplanung und europäischer B2B-Kommunikation.



- **CCTV** Honored Brand - CCTV Exclusive Interview
- Drafting Unit of China's "Design Specifications for Intelligent Cleaning Systems of Photovoltaic Power Stations"
- Certification for Microcracks in Photovoltaic Panels
- EU CE Certification
- ISO International Quality System Certification
- High-Tech Enterprise
- Innovative Small and Medium-sized Enterprises
- Specialized, Refined, Distinctive, and Innovative SMEs

Unbending the will , facing the sun!

XYT | **SINCE 2017**

After nine years of deep industry expertise and continuous technological advancement, XYT has consistently achieved breakthroughs in R&D and manufacturing, completing hundreds of product iterations. Its proven performance under rigorous conditions has earned widespread trust and acclaim from customers.

CONTENTS

01 About XYT

P02 About Us

02 Brand Strength

P03 Honors & Certifications

P05 Quality Systems

P07 Customer Case

P09 Global Operational Network

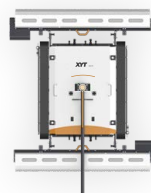
03 Independent R&D

P10 Core Component

P12 R&D Team & Investment

04 Solar Panel Cleaning Series

P14



X8 Solar panel cleaning robot

P17



X7 Solar panel cleaning robot

P20



X6 Solar panel cleaning robot

P23



X9 Solar panel cleaning robot

P26



X5 Solar panel cleaning machine

P29



X4 Solar panel cleaning machine

P32



X3 Solar panel cleaning machine

P35



X2 Spray brush

ABOUT US

XYT, founded in 2017, is a pioneer in developing and applying photovoltaic cleaning robots. With an 8,500m² factory, it offers comprehensive cleaning solutions for all types of PV plants.

Certified with ISO and CE, the company serves over 10,000 power plants across 60+ countries. It integrates R&D and operations to deliver smart cleaning solutions that improve safety and boost global renewable energy development.

9^{year}

Focused on
Solar Panel Cleaning

60⁺

Serving 60+ Countries
& Regions Worldwide

10000⁺

Serving 10,000+
clean power plants



Leading Industry Standards

Redefining Smart Clean Energy Paradigms

XYT | Global Leader in Cleaning Industry



20⁺

Design Patents



10⁺

Utility Model Patents



CE

CE Marking



3 Major Systems

ISO International
Quality System
Certification



10⁺

- National Certifications
- Micro-Crack Inspection
- Electrical Certification



3 大企业认证

- High-Tech Enterprise
- Innovative SME
- Specialized SME



China's Leading PV Panel Cleaning Solution Provider



i XYT led the development of the Group Standard "Design Code for Intelligent Cleaning Systems for PV Power Plants" (T/CIET-1315-2024).

- | | | |
|---|---|---|
| <p>✔ System Design Guidelines</p> <p>Pioneering a three-in-one architecture for weather sensing, dynamic routing, and cluster coordination.</p> | <p>✔ Smart O&M Specification</p> <p>Standardizing the data interface between robot diagnostics and the plant management system.</p> | <p>✔ Security Framework</p> <p>Setting industry benchmarks for zero module damage, Class 10 wind resistance, and IP68 protection.</p> |
|---|---|---|



Honored brand with special CCTV coverage

Nine years. Hundreds of iterations. Technology forged excellence

Recognized as a National High-Tech Enterprise and featured on CCTV, XYT earns market trust with exceptionally reliable and low-maintenance products. This reliability stems from continuous innovation and patent-grade technical precision.

QUALITY

Excellence in Every Detail, Quality at Every Step.



FROM A SINGLE SCREW TO COMPLETE MACHINE DELIVERY –
REDEFINING CLEANING EQUIPMENT MANUFACTURING STANDARDS.



12

INSPECTION PROCESS

XYT's principle, "Excellence in Every Detail," is ensured by a comprehensive quality system.

This spans from stringent supply chain and production controls to full product validation and a "one-unit-one-code" traceability system.

The system is certified to CE and ISO 9001, driving continuous improvement.

01

Cleaning Test

02

EMF High/Low
Temperature Test

03

Power Output
Stability Test

04

Motor Temperature
and Load Testing

05

Driver Temperature
Performance Test

06

Motor Speed and
Overload Test

07

Driver Accelerated
Life Test

08

Motor Durability
Simulation Test

09

IP Rating Test

10

Heat Source Corrosion
Resistance Test

11

Wear Inspection

12

Component Drive
Reliability Test

CUSTOMER CASE

XYT, ENGINEERED FOR SOLUTIONS!

XYT's all-scenario cleaning solutions are built for complex PV sites—from mountains and rooftops to fishing-solar farms.

Lightweight and adaptive, they boost cleaning efficiency by over 40% even in extreme conditions, ensuring optimal power generation.

X8

VOYAH Vehicle
Rooftop Power

📍 Wuhan



X6

Yutai Fishery-Solar
Power Station

📍 Shandong



X5

Mountainous Power

📍 Yunnan



X7

JAC Vehicle
Rooftop Power

📍 Shandong



X6

Gao'an Fishery-Solar
Power Station

📍 Jiangxi



X4

Alloy Steel Plant
Rooftop Power

📍 Yanzhou





NEVER FIGHTING ALONE!

We go to the source. The answer is in the field; the solution, in every dialogue. We define challenges with our users, and we solve them—together—until it's perfect.

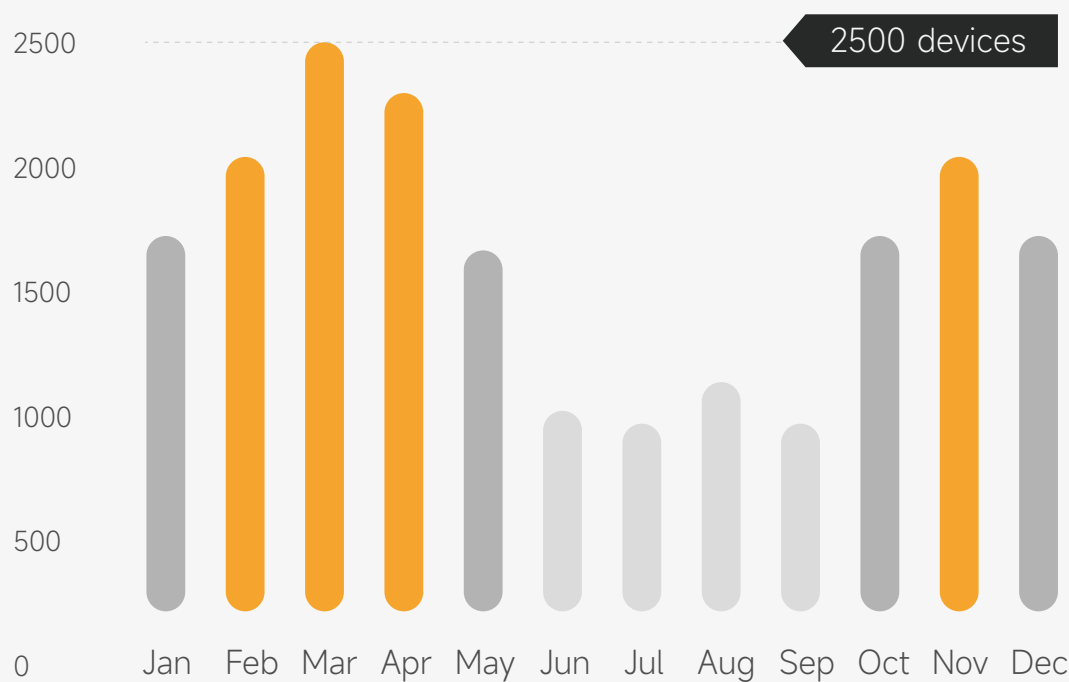
Global Operational Network

One Hub, Global Reach

- XYT, headquartered in Shandong with a global reach, is committed to delivering leading solar panel cleaning solutions and high-quality products worldwide. We leverage strong technological innovation and resource integration to serve our international clients.

Annual Sales Visualization

Monthly Average Sales (Past 3 Years)



60⁺

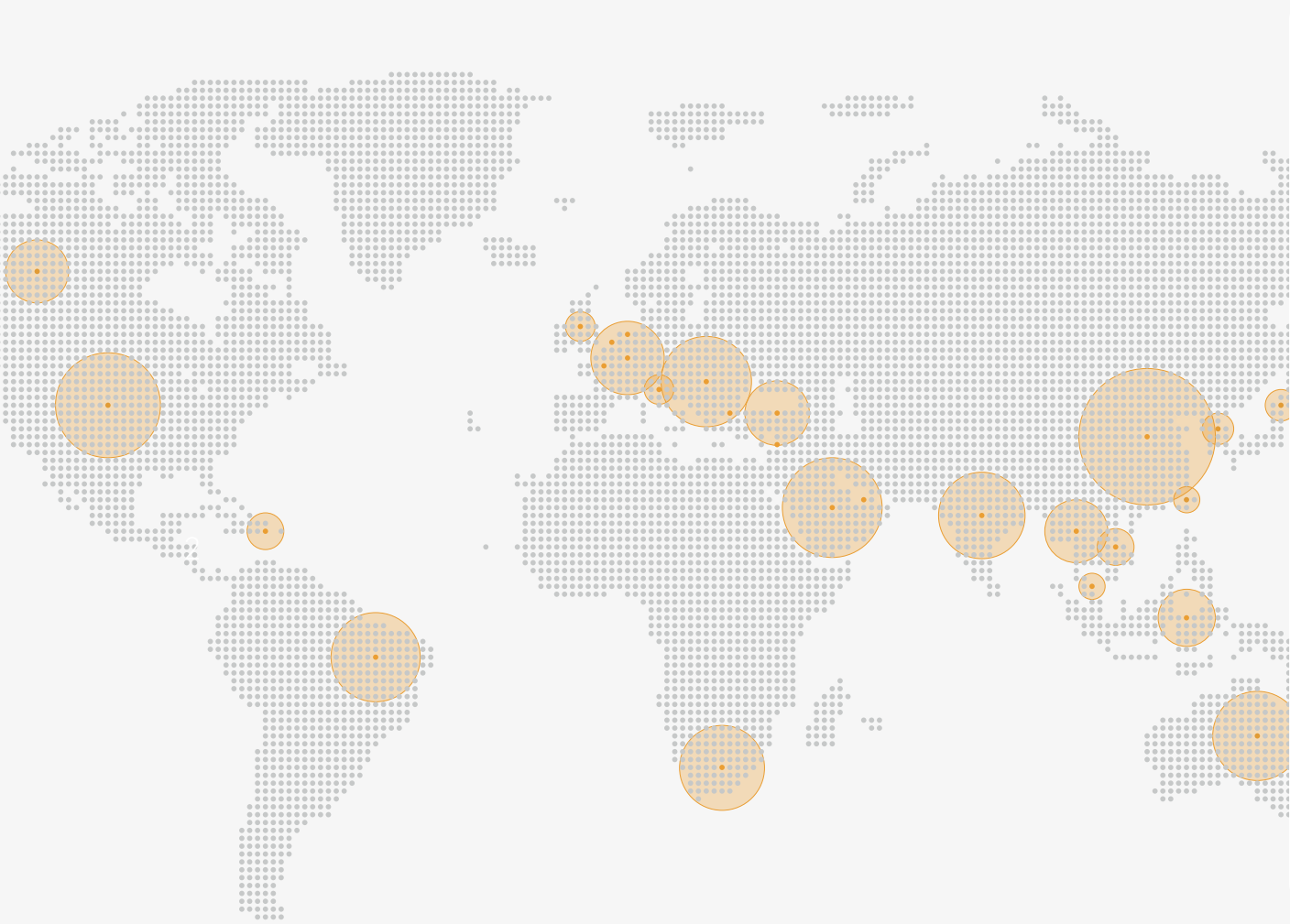
Served Countries & Regions

99.3%

Our Customer Satisfaction Rate

10000⁺

Our Client Portfolio



NANJING & SHANDONG

Arab	Bangladesh
Australia	Mexico
Brazil	South Africa
Belgium	Japan
Puerto Rico	Switzerland
Germany	Thailand
France	Türkiye
Nethelands	Italy
Lebanon	Indonesia
Malaysia	Britain
Macedonia	Vietnam
America	...



2^{YEAR}
FREE WARRANTY

2-YEAR FREE WARRANTY ON 3 CORE COMPONENTS

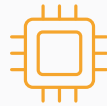
XYT selects core components with extreme rigor, backed by long-term testing. We stand by this with a 2-year core parts warranty. Our commitment extends beyond delivery—we ensure lasting reliability, continuously improving to protect your operation with total peace of mind.

This warranty applies exclusively to models X6, X7, and X8. For full details, please refer to the product warranty manual.



Brush-Head Drive Motor

Every brush stroke rewrites PV cleanliness standards. Our brushless motors eliminate carbon dust (< 0.1mg/10k cycles, 99% less) with 100% reliable thermal protection, proven through 100,000-cycle testing.



Main Control PCB System

Industrial protection + smart prediction safeguard PV cleaners. The industrial-grade PCB ensures extreme environment reliability through optimized design, nitrogen soldering & protective coating.



Traversal Drive Motor

All-terrain drive motor with-stands deserts to poles. Industrial brushless (IP65), tested 2,000h with 30,000h bearing life.



R&D TEAM AND INVESTMENT

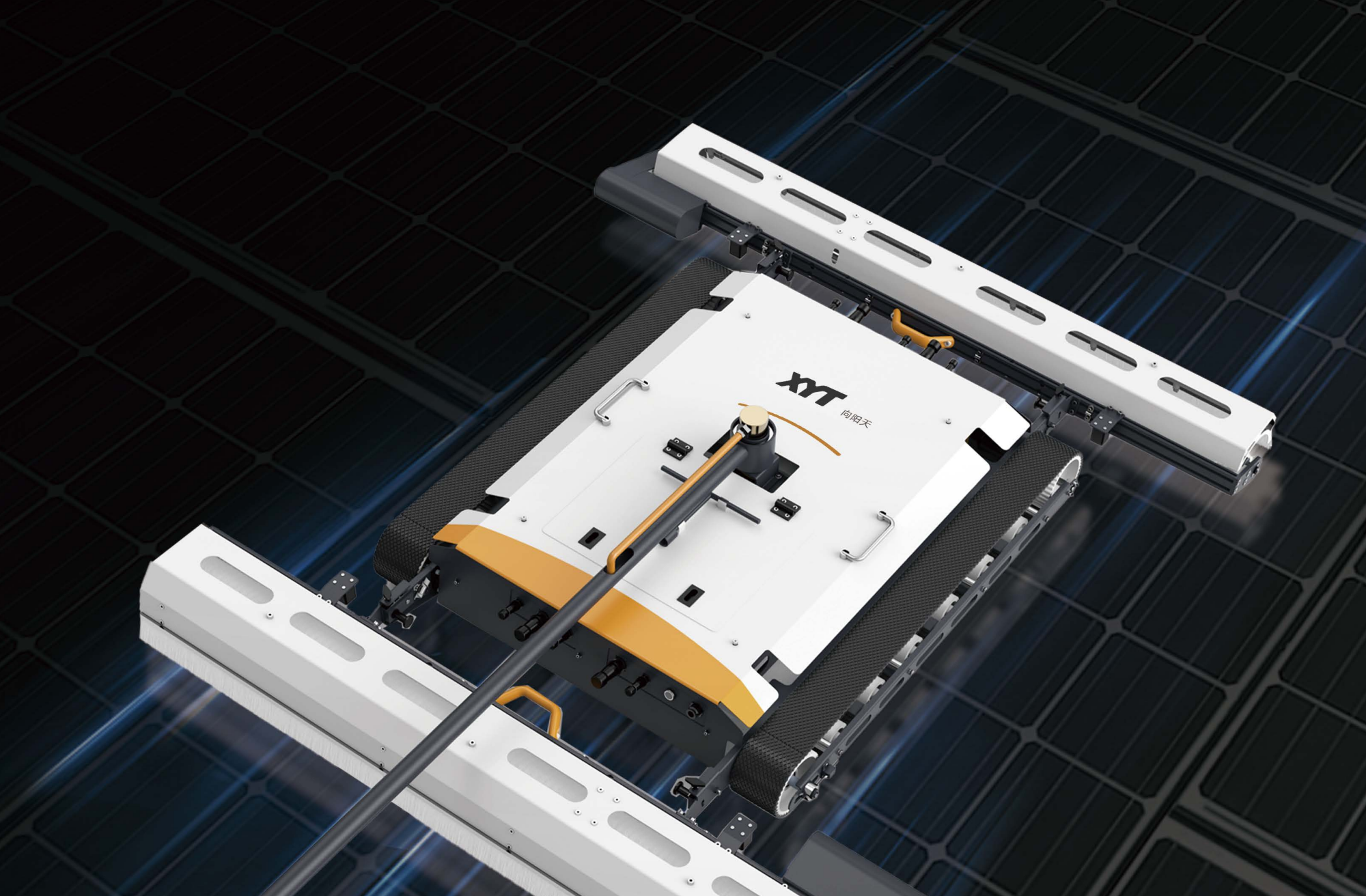


Pure PV · Smart Future

— XYT's Innovation Landscape

R&D team	Expert-Backed & Talent-Driven 50+ R&D Team 60% Cross-Disciplinary in MechE & E-Control
R&D equipment	Lab & Equipment Multi-Test Platform: Climate/Salt Spray/Accelerated Aging Test Chambers etc.
R&D investment	Funding & Mechanism · 100000000+ yearly R&D (50% revenue) · Dedicated fund for fundamental tech innovation.

R&D Team	R&D Investment Ratio	R&D Investment
50+	50%	100000000+



X8

The X8 remote-controlled crawler PV cleaning robot is built for hard-to-reach power plant areas. With a 1.8-meter cleaning width and integrated auto-tracking and path planning, it makes cleaning effortless and efficient.



Auto Speed
Control



Anti-Fall



Full Auto



Durable

X8 KEY FEATURES



1

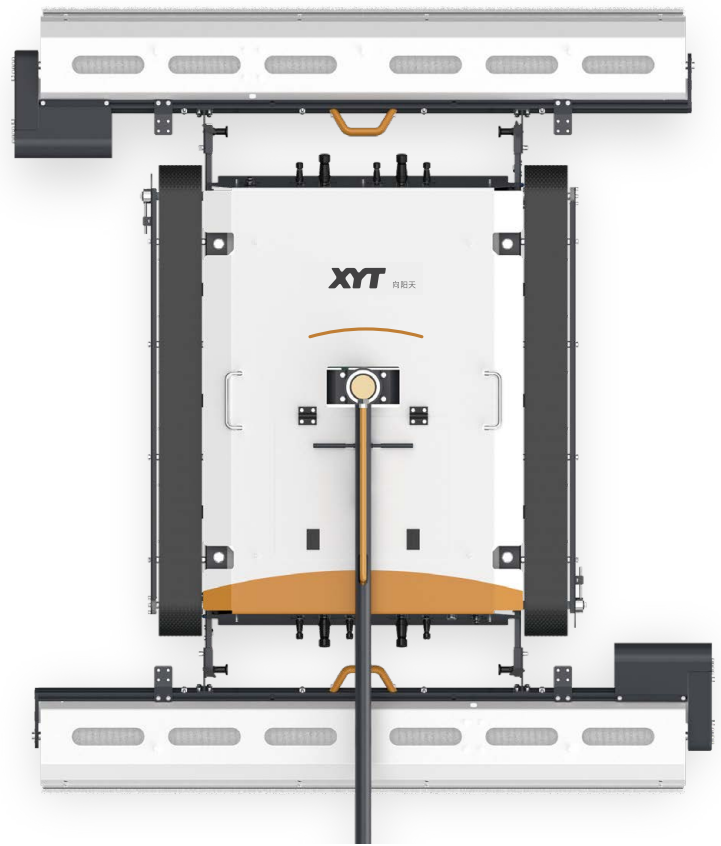
Automatic Correction

The system intelligently corrects course deviations — caused by slippage or external forces — within seconds, ensuring stable cleaning paths.

3

Higher Speed Double Efficiency

Speed is adjustable up to 40 m/min, with presets of 30 or 20 m/min for heavy soiling like bird droppings. Light dust allows faster cleaning for efficiency.



2

Auto-Path for Easy Operation (Optional)

Smart path planning enables 18,000 m² daily cleaning with >99% coverage, cutting labor and O&M costs to guard your revenue.

4

Edge Detection & Auto-Return Power-Off Lock / Auto-Brake

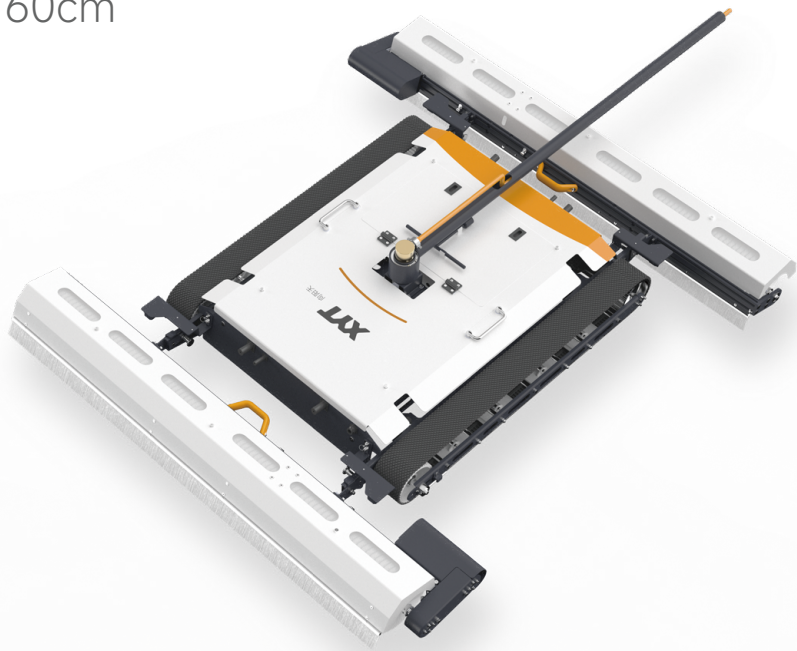
4 high-precision sensors detect panel edges for automatic stop and return. Travel motors lock within 0.5s during power loss to prevent rolling.
Note: Safety ropes are mandatory on 15-20° slopes.

SPECS

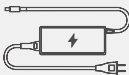
Robot	X8 (Dual-Brush Version)	X8 Plus (Dual-Brush Version)
Cleaning Width	1400mm	1800mm
Dimensions	1720*1550*300mm	1720*1950*300mm
Battery Runtime	SR 3h / LR 6h	SR 2.5h / LR 5h
Unit Weight	61.1KG	63.5KG
Brush Weight	14.5KG	16.5KG
Battery Weight	8KG	
Charging Time	8h (Per Lithium Battery)	
Travel Speed	20/30/40(Max) m/min (±2m)	
Suitable PV Tilt Angle	L 20° / M15° / H 10°	
Horizontal Reach	60cm	

Remote Control

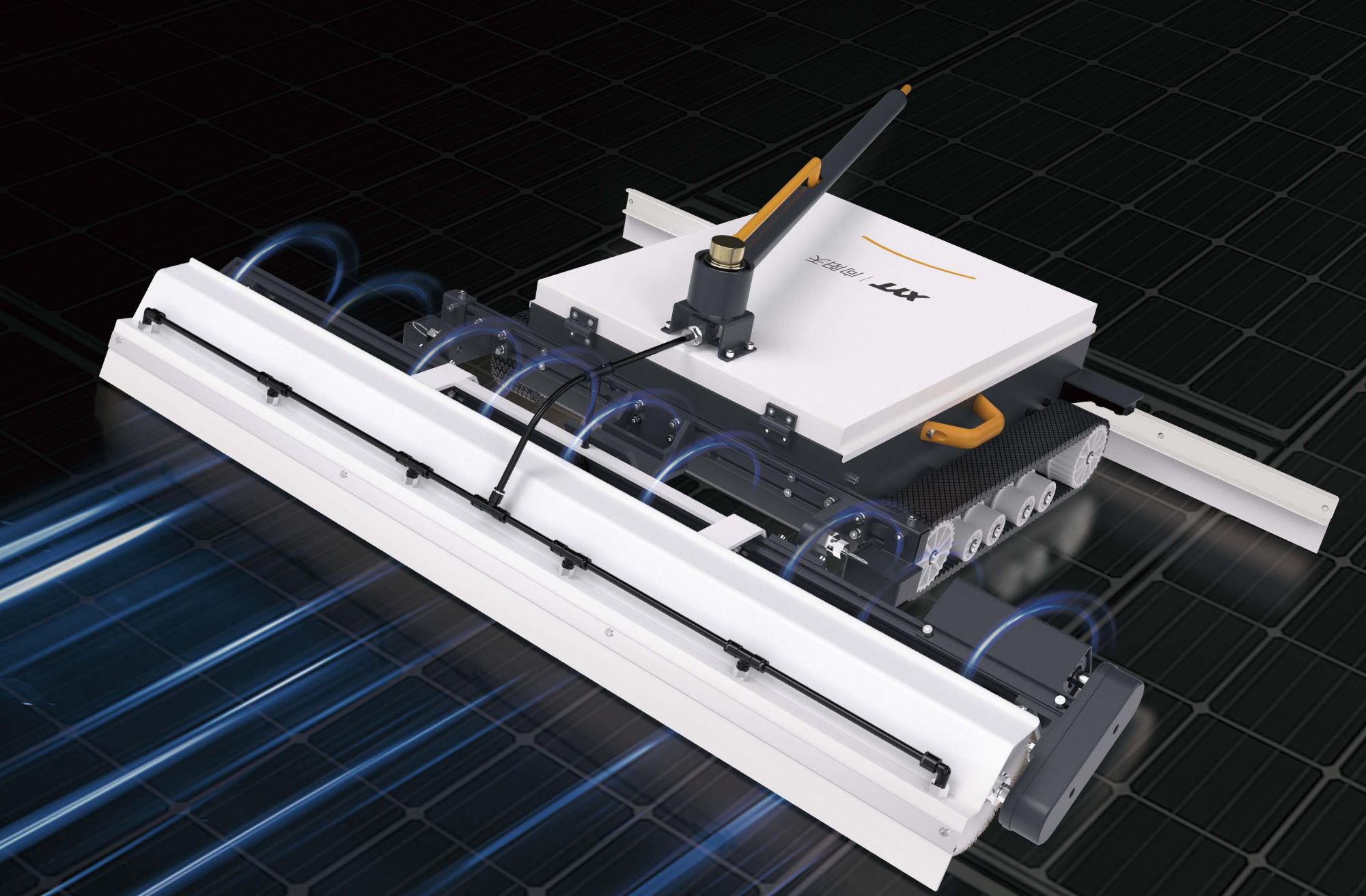
- Battery life: 30h
- Charging time: 6-8h
- Compatible charging voltage range: 5V/1A
- Remote Control Charging Port Type: TP-C



Configuration

- User Manual
- Remote Control
- Lithium Battery
- Charger
- Toolkit
- Backpack

X8 / X8Plus Single Roller + scraping	Standard	×1	×1	×1	×1	×1	×1
	Long-Range	×1	×1	×2	×2	×1	×2
X8 / X8Plus Dual Roller + scraping	Standard	×1	×1	×1	×1	×1	×1
	Long-Range	×1	×1	×2	×2	×1	×2



X7

The X7 tracked, remote-control PV cleaning robot is tailored for the challenging environments of solar power plants. It addresses hard-to-reach areas where manual or pole-based cleaning is impossible. This robot enables efficient remote cleaning, significantly reducing labor costs compared to traditional methods.



Anti-Drop



Efficient

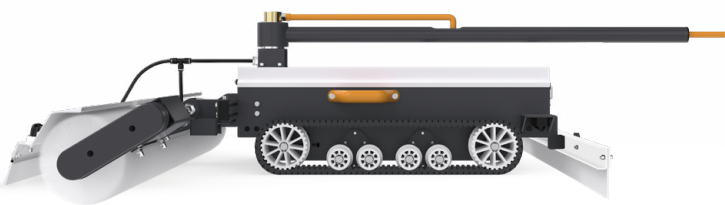


Lightweight



Crossing
Ability

X7 KEY FEATURES



1

Automatic Correction

The system intelligently corrects course deviations — caused by slippage or external forces — within seconds, ensuring stable cleaning paths.
Note: For model X7Pro and above.

3

Higher Speed Double Efficiency

Speed is adjustable up to 40 m/min, with presets of 30 or 20 m/min for heavy soiling like bird droppings. Light dust allows faster cleaning for efficiency.
Note: For model X7Pro and above.



2

Auto-Path for Easy Operation (Optional)

Smart path planning enables 12,000 m² daily cleaning with >99% coverage, cutting labor and O&M costs to guard your revenue.
Note: For model X7Pro and above.

4

Edge Detection & Auto-Return Power-Off Lock / Auto-Brake

4 high-precision sensors detect panel edges for automatic stop and return. Travel motors lock within 0.5s during power loss to prevent rolling.
Note: Safety ropes are mandatory on 15-20° slopes.
Note: For model X7Pro and above.

SPECS

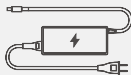
Robot	X7	X7 Pro
Cleaning Width	1200mm	1400mm
Travel Speed	20m/min (±2m)	20/30/40(Max) m/min (±2m)
Suitable PV Tilt Angle	≤20°	L 20° / M15° / H 10°
Run Time	SR 4-5h / LR 8-10h	SR 4-5h / LR 8-10h
Charging Time	6-7h	8h
Dimensions	1300*1000*350mm	1550*1150*350mm
Unit Weight	23KG	30KG
Brush Weight	7.5KG	11KG
Battery Weight	4*2KG	8KG
Horizontal Reach	15cm	25cm

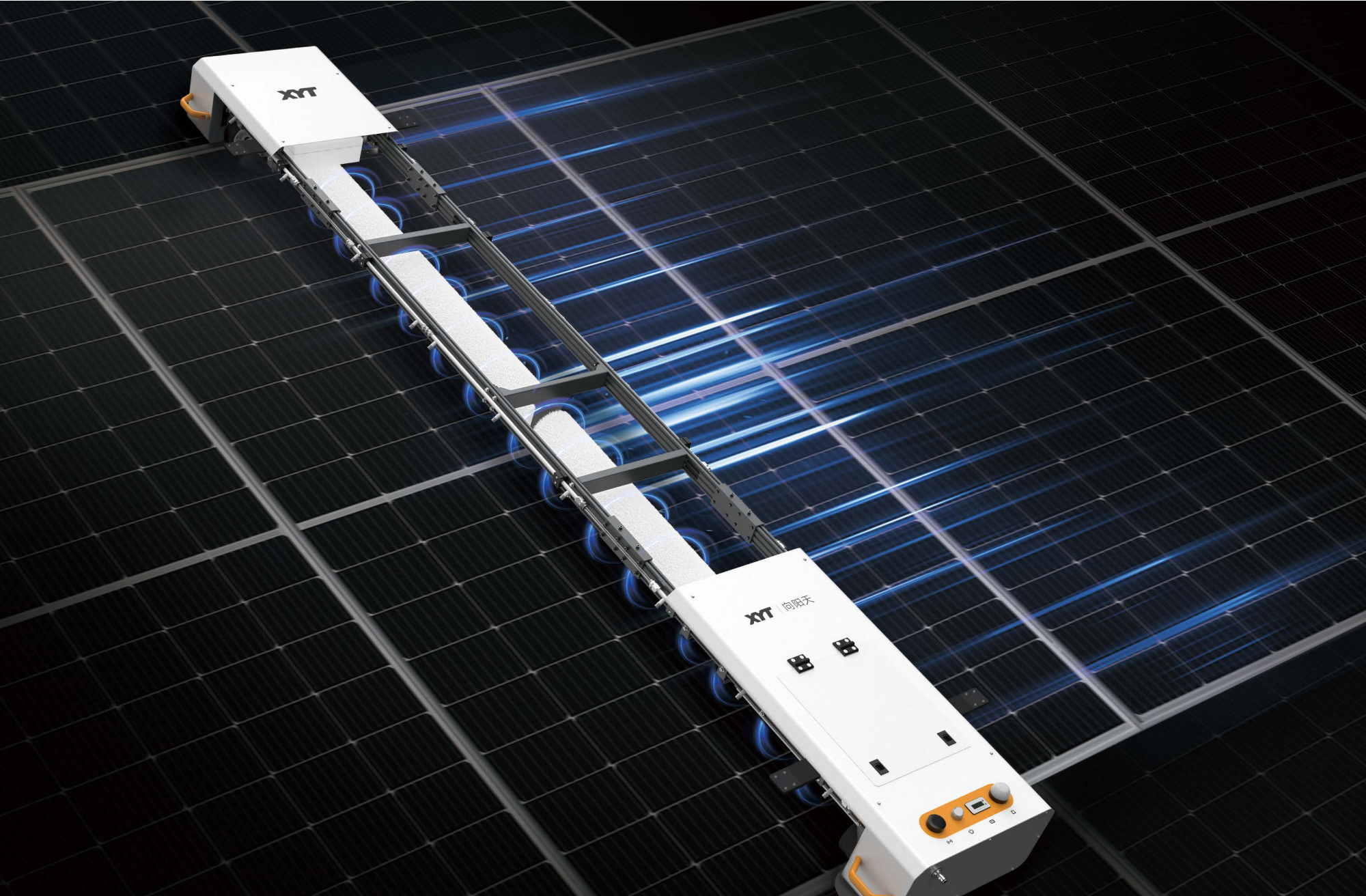
Remote Control

- Battery life: 30h
- Charging time: 6-8h
- Compatible charging voltage range: 5V/1A
- Remote Control Charging Port Type: TP-C



Configuration

							
X7	Standard	×1	×1	×2	×2	×1	×2
	Long-Range	×1	×1	×4	×4	×1	×4
X7 Pro	Standard	×1	×1	×1	×1	×1	×1
	Long-Range	×1	×1	×2	×2	×1	×2



X6

The X6 remote-controlled suspended PV cleaner glides over panels and adapts to diverse terrains up to 50°. It cleans 76% faster than traditional methods, setting a new efficiency benchmark.



General



Efficient

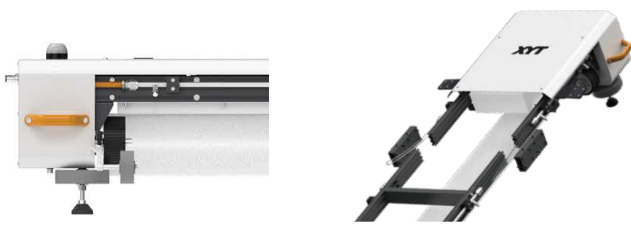


High pass
rate



Cross the
bridge

X6 KEY FEATURES



1

One X6 fits all solar panel sizes

The innovative patent-pending X6 features a modular three-section design (upper, middle, lower) that adapts to various solar panel sizes, slashing procurement costs. Replacement is quick and easy, taking just 20 minutes.

3

Wide Gaps. Support Beams. Faster Cleaning.

Equipped with two telescopic bridges to span gaps up to 60cm, improving cleaning efficiency without manual relocation. Custom sizes available.



2

Any Terrain. Unmatched Efficiency

The product operates by being suspended on PV modules and is suitable for power stations with slopes up to 50°. It is compatible with various plant types — including mountainous, utility-scale, fishery-PV, and agro-PV — delivering large-scale, high-angle, and highly effective cleaning.

4

Upgraded rapid board feeder, achieves board loading in just 20s

Top triple-pulley design maximizes effort reduction. With just two operators, it enables equipment positioning within 20s, significantly boosting efficiency and reducing labor costs.

SPECS

Model	PV size(MM)	Brush size(MM)	Net weight(KG) Battery Not Included
X601	1640-1650	1640	40
X602	1990-2000	2000	45
X603	2268-2278	2278	50
X604	2370-2384	2384	55
X605	3310-3320	1640*2	60
X606	4010-4020	2000*2	65
X607	4566-4576	2278*2	70
X608	4768-4788	2384*2	75
Customized	Custom sizes available	Custom sizes available	-

X6 Robot

Speed: ≤15m/min	Step Obstacle: ≤40mm
Tilt: ≤50°	Gap Span: ≤600mm (with accessory)
Runtime: 6-8h	Height Misalignment: ≤30mm
Charging: 7-8h	Operating Temp: -20°C to 60°C
Battery: 6.5kg/unit.	Cleaning Modes: Dry / Wet



Configuration



Telescopic arm
60cm bridge kit

×2



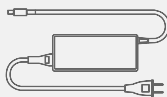
Remote Control

×1



Lithium Battery

×2



Charger

×2



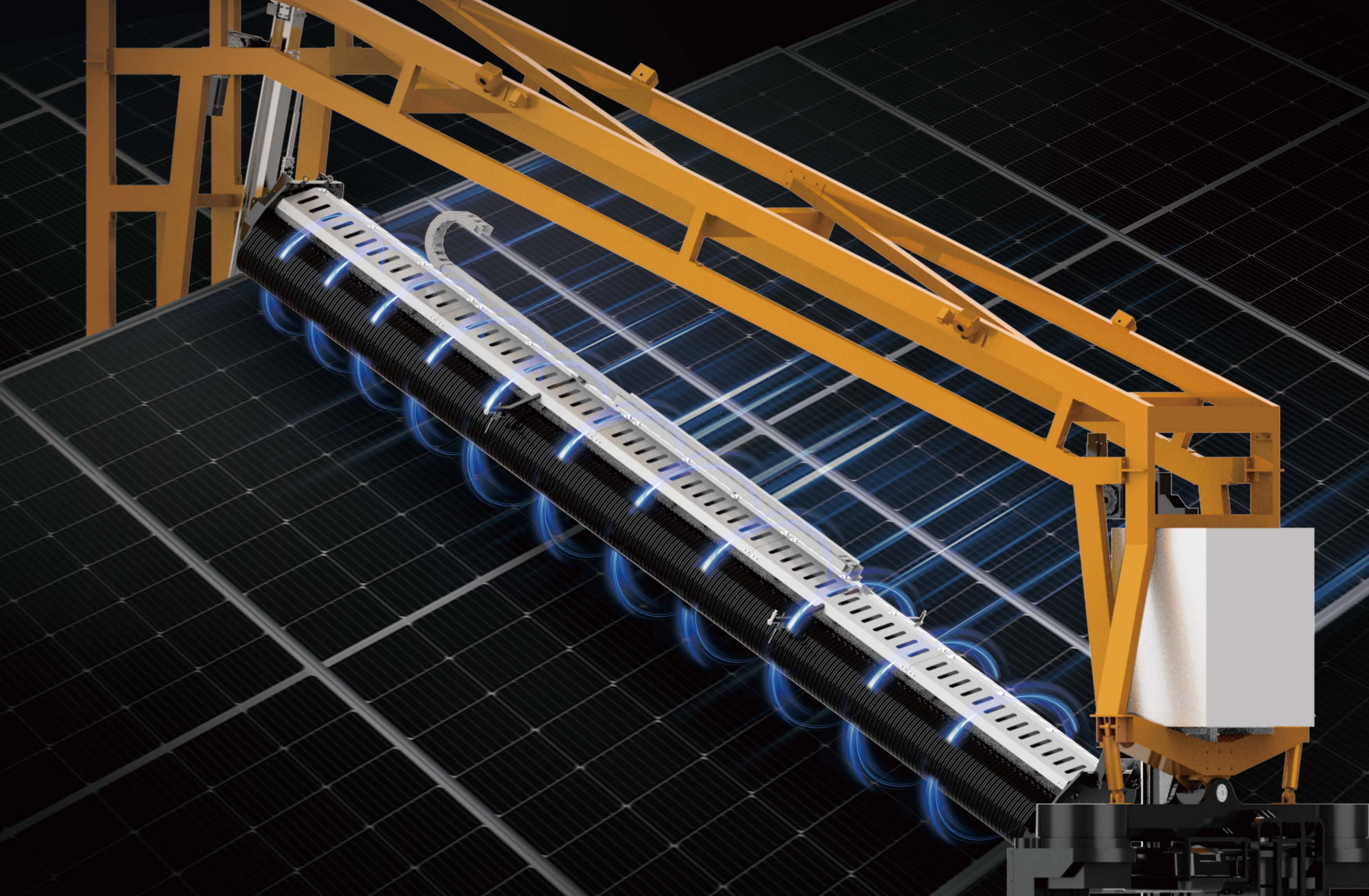
Tool Kit

×1



Backpack

×2



X9

The JH-2 Smart O&M Robot is an intelligent cleaning device designed for centralized solar PV plants. It combines panel cleaning and inspection to enhance power generation, reduce operating costs, and ensure stable plant performance.



Smart
Inspection



High
Efficiency

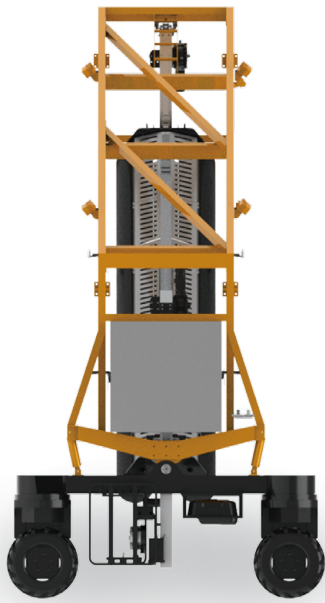


Smart
Connectivity



obstacle
crossing

X9 KEY FEATURES



1

Dual Brushes + Suction

Enclosed, dust-free cleaning with counter-rotating dual brushes for one-pass efficiency.

2

Smart Inspection

Integrated AI inspection with dual cameras for automated, real-time fault detection and report generation.

3

Gradeability & Obstacle Crossing

4-wheel electric drive enables slope and obstacle climbing during fully-loaded operation.

4

Smart Connectivity

Wireless link control for real-time robot communication and platform integration, ensuring uninterrupted operation and data flow.

SPECS



X9 Robot

Max Speed: ≥ 60 m/min

Obstacle Climbing: ≥ 10 cm

Gradeability: $\geq 10^\circ$

Operation Modes: Remote Control, Autonomous

Cleaning Capacity: $\geq 12,000$ m²/h

Cleaning Rate: $\geq 95\%$

Operating Temp: -20°C to 60°C

Max Runtime: ≥ 12 h

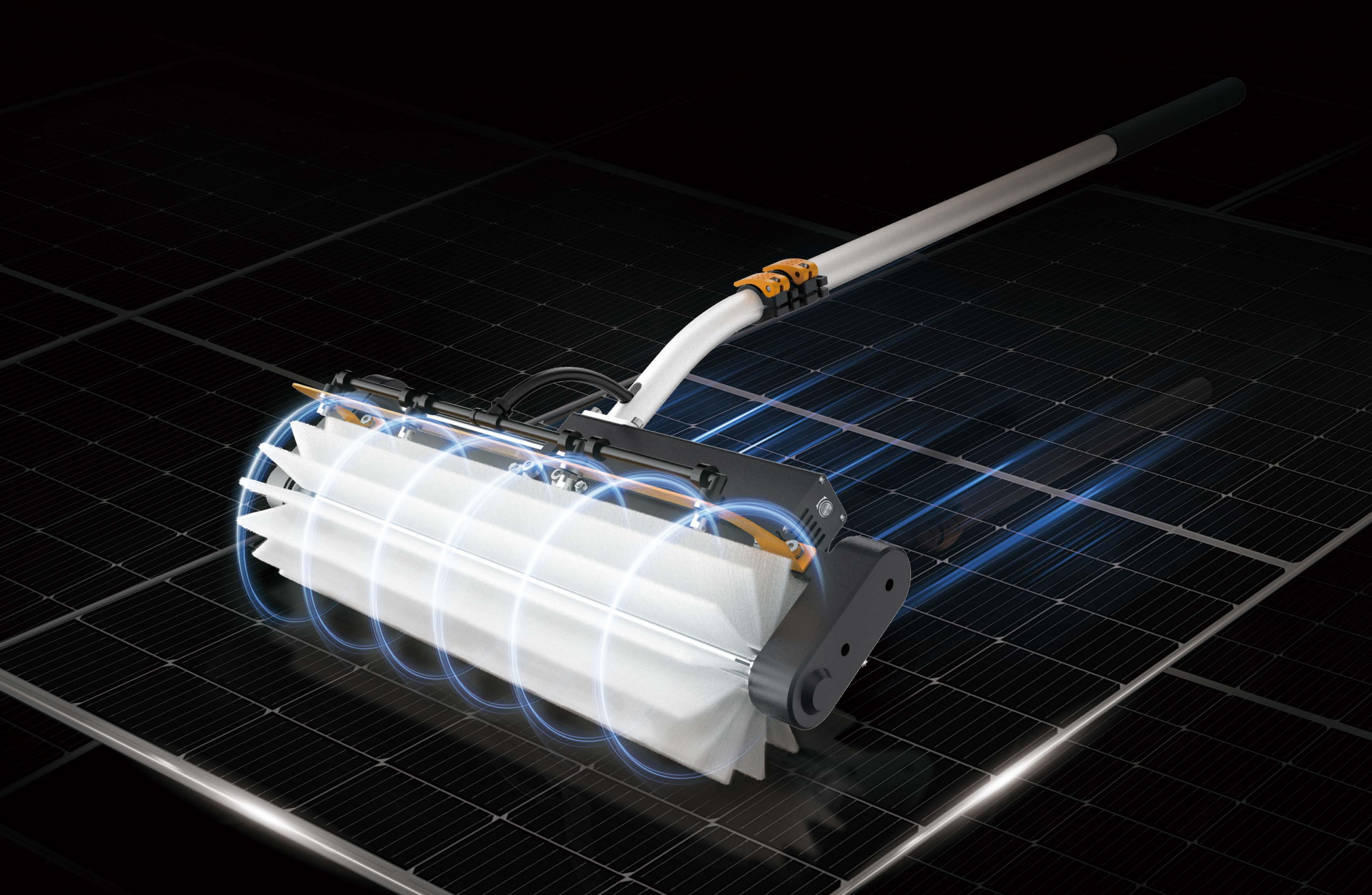
Fault Detection Resolution: 10mm x 10mm (Visible Light Camera)

30mm x 30mm (Infrared Camera)

Adaptive Adjustment Range:

JH-2S: For panels with ground clearance of 30–140cm, tilt angle adapts to 25° – 41°

JH-2M: For panels with ground clearance of 10–55cm, tilt angle adapts to 33° – 40°



X5

X5 rolling brush solar panel cleaning machine, patented product, suitable for cleaning various solar panels within. This product has a fast brush head speed, light weight, easy operation, high efficiency, and can be used in one machine for both dry cleaning and washing.



Dry/Wet



Waterproof

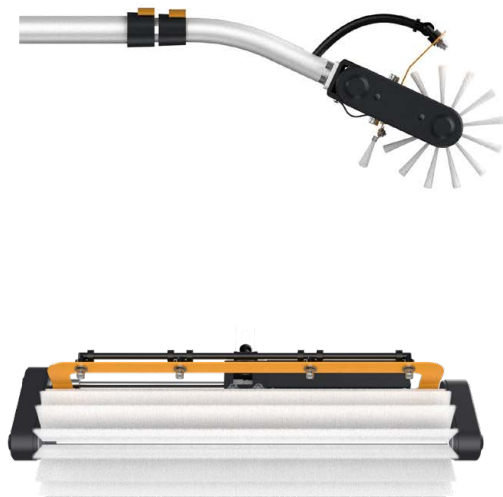


Efficiency



Self-Driving

X5 KEY FEATURES



1

Effective for both dry and wet cleaning

A dual-mode brush designed for effective dust removal (dry) and squeegee-like water clearance (wet), preventing splash-back and ensuring a high-efficiency clean in both modes.

2

Rain-resistant & fully waterproof

Built for outdoor cleaning with reinforced waterproof protection. Its core components—a molded waterproof motor and export-grade waterproof connectors—deliver submersible-grade sealing to effectively prevent water ingress, short circuits, and oxidation, ensuring reliable operation even in rain.

3

Pure copper brushless motor — Built to Last

Outlasts brushed motors with 10,000+h lifespan and dust/water resistance for tough conditions.

4

Self-driven brush for easy operation by all users

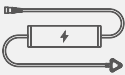
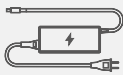
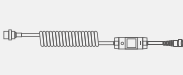
The self-propelled brush head drives the cleaner forward for effortless push-pull operation with the telescopic pole.



SPECS

X5 Cleaner	Powered	Lithium Battery	Dual-use
Runtime	-	3.5-4.5h	3.5-4.5h
Charging Time	-	6-7h	6-7h
Li-ion Voltage	-	24V	24V
Li-ion Capacity	-	26AH	26AH
Cable Length	14 / 16 / 18m	5 / 7 / 9m	14 / 16 / 18m
Hose Length	5 / 7 / 9m	5 / 7 / 9m	5 / 7 / 9m
Motor Voltage	24V	24V	24V
Motor Power	150W	150W	150W
Motor Speed	680r/min	680r/min	680r/min
Cleaning Width	60cm	60cm	60cm
Brush Material	PBT	PBT	PBT
TEL Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
TEL Length	3.5 / 5.5 / 7.5m	3.5 / 5.5 / 7.5m	3.5 / 5.5 / 7.5m

Configuration

								
Powered	■	■	■	■	-	-	-	-
Lithium Battery	■	-	-	-	■	■	■	■
Dual-use	■	■	■	■	■	■	■	■



X4

X4 Dual-Head Solar Cleaner delivers efficient cleaning with dual-motor driven, counter-rotating brushes and built-in water spray. Suitable for large-scale applications including commercial rooftops, agro-photovoltaic systems, fishing-solar farms, and mountainous solar plants.



Stable



Efficiency



Waterproof



Durable

X4 KEY FEATURES




All Rights Reserved

1

Balanced dual-head power enhances stability

Dual-brush counter-rotation delivers balanced power for stable, straight-line operation — more controlled and effortless than single-brush or roller designs.

2

Water-curtain rapid cleaning - thorough and highly efficient

X4 features 4 fan-spray nozzles (front/rear) that form a powerful water curtain, rapidly flushing contaminants off panels and improving cleaning efficiency by 75%.

* Function exclusive to brushless motor version.

3

Pure copper brushless motor — Built to Last

Outlasts brushed motors with 10,000+h lifespan and dust/water resistance for tough conditions.

4

Rain-resistant & fully waterproof

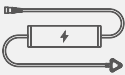
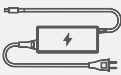
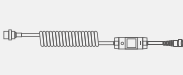
Weatherproof design with sealed motor and connectors for reliable operation in rain. Prevents water damage and corrosion.

SPECS



X4 Cleaner	Powered	Lithium Battery	Dual-use
Runtime	-	3.5-4.5h	3.5-4.5h
Charging Time	-	6-7h	6-7h
Battery Voltage	-	24V	24V
Battery Capacity	-	26AH	26AH
Cable Length	14 / 16 / 18m	5 / 7 / 9m	14 / 16 / 18m
Hose Length	5 / 7 / 9m	5 / 7 / 9m	5 / 7 / 9m
Motor Voltage	24V	24V	24V
Power (BDC/BLDC)	240/300W	240/300W	240/300W
Speed (BDC/BLDC)	300/350r/min	300/350r/min	300/350r/min
Cleaning Width	65cm	65cm	65cm
Brush Material	PBT	PBT	PBT
TEL Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
TEL Length	3.5/5.5/7.5m	3.5/5.5/7.5m	3.5/5.5/7.5m

Configuration

								
Powered	■	■	■	■	-	-	-	-
Lithium Battery	■	-	-	-	■	■	■	■
Dual-use	■	■	■	■	■	■	■	■



X3

X3 Single-Head Solar Cleaner features a built-in water outlet for pressurized brushing and efficient cleaning. Lighter and more maneuverable than dual-head models, it's ideal for compact solar installations with limited working space.



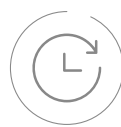
Easy to
handle



Retractable



Waterproof



Durable

X3 KEY FEATURES



1

Self-Adapting Angle - Prevents Brush Deviation

During cleaning, the brush self-adapts to the panel's tilt within an adjustable range, ensuring full contact and even pressure distribution for straight, easy-to-control operation.

2

Adjustable length up to 7.5m

The telescopic pole features a quick-lock mechanism for adjustable length, available in 3.5/5.5/7.5m models. Cleans everything from your feet to distant panels, spanning up to 4 rows in vertical arrays.

* Custom lengths available – contact us.

3

Pure copper brushless motor — Built to Last

Outlasts brushed motors with 10,000+h lifespan and dust/water resistance for tough conditions.

4

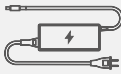
Rain-resistant & fully waterproof

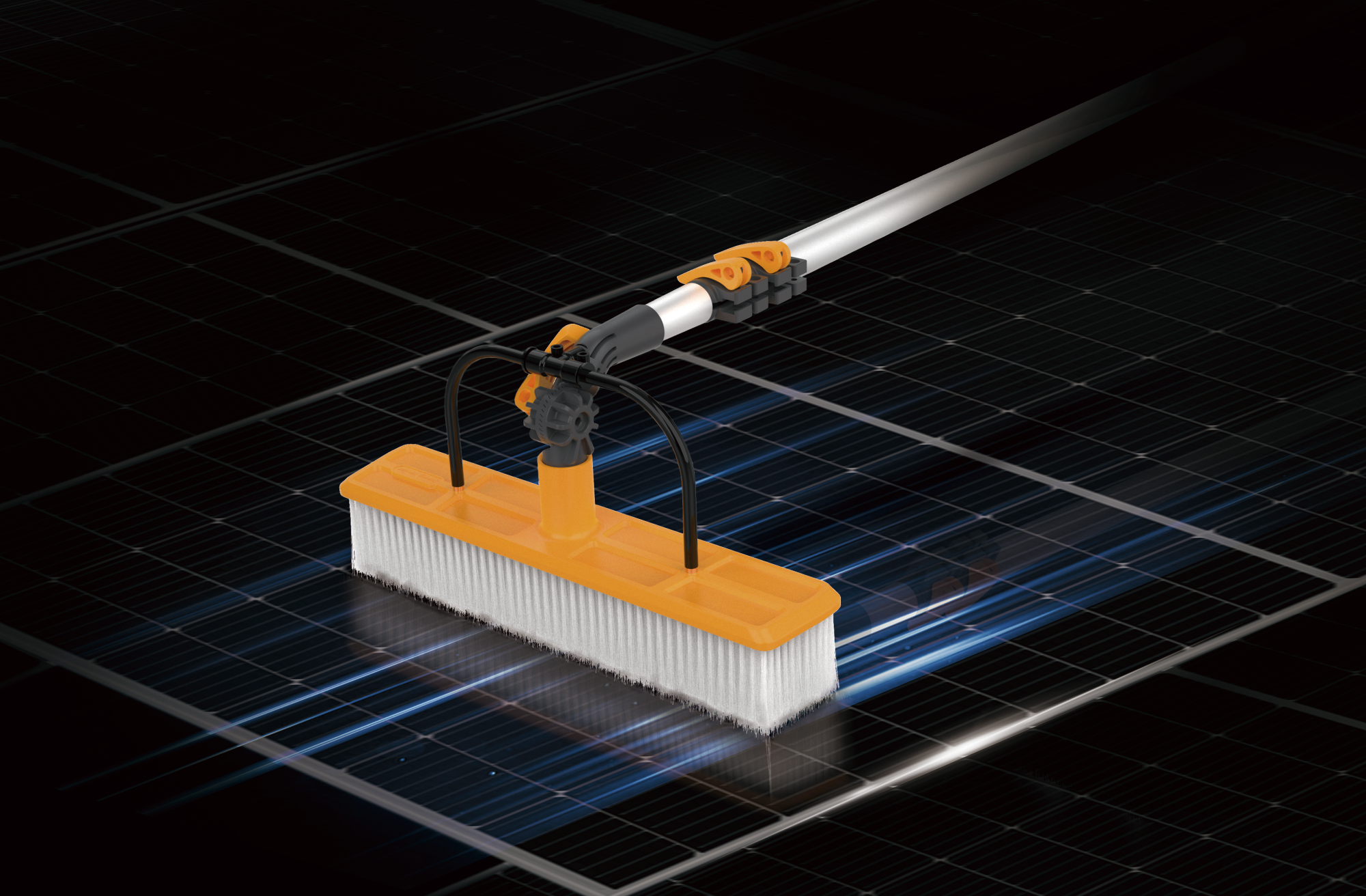
Weatherproof design with sealed motor and connectors for reliable operation in rain. Prevents water damage and corrosion.

SPECS



X3 Cleaner	Powered	Lithium Battery	Dual-use
Runtime	-	6-7h	6-7h
Charging Time	-	6-7h	6-7h
Battery Voltage	-	24V	24V
Battery Capacity	-	26AH	26AH
Cable Length	14 / 16 / 18m	5 / 7 / 9m	14 / 16 / 18m
Hose Length	5 / 7 / 9m	5 / 7 / 9m	5 / 7 / 9m
Motor Voltage	24V	24V	24V
Power (BDC/BLDC)	120/150W	120/150W	120/150W
Speed (BDC/BLDC)	300/350r/min	300/350r/min	300/350r/min
Cleaning Width	30cm	30cm	30cm
TEL Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
TEL Length	3.5/5.5/7.5m	3.5/5.5/7.5m	3.5/5.5/7.5m
Water Pump	24V/100W	-	24V/100W

Configuration	 User Manual	 Power Adapter	 Water-Power Combo Cable	 Suction Hose	 Control Box	 Teleswitch	 Lithium Battery	 Charger	 Electric control spring wire	 Backpack
Powered	■	■	■	■	■	■	-	-	-	-
Lithium Battery	■	-	-	-	-	-	■	■	■	■
Dual-use	■	■	■	■	■	■	■	■	■	■



X2

A handheld manual cleaning brush with 3.6-11.4m telescopic pole and internal water supply for efficient cleaning. Ideal for solar panels, high-rise glass, facades, and floors.



Adjustable



Telescopic

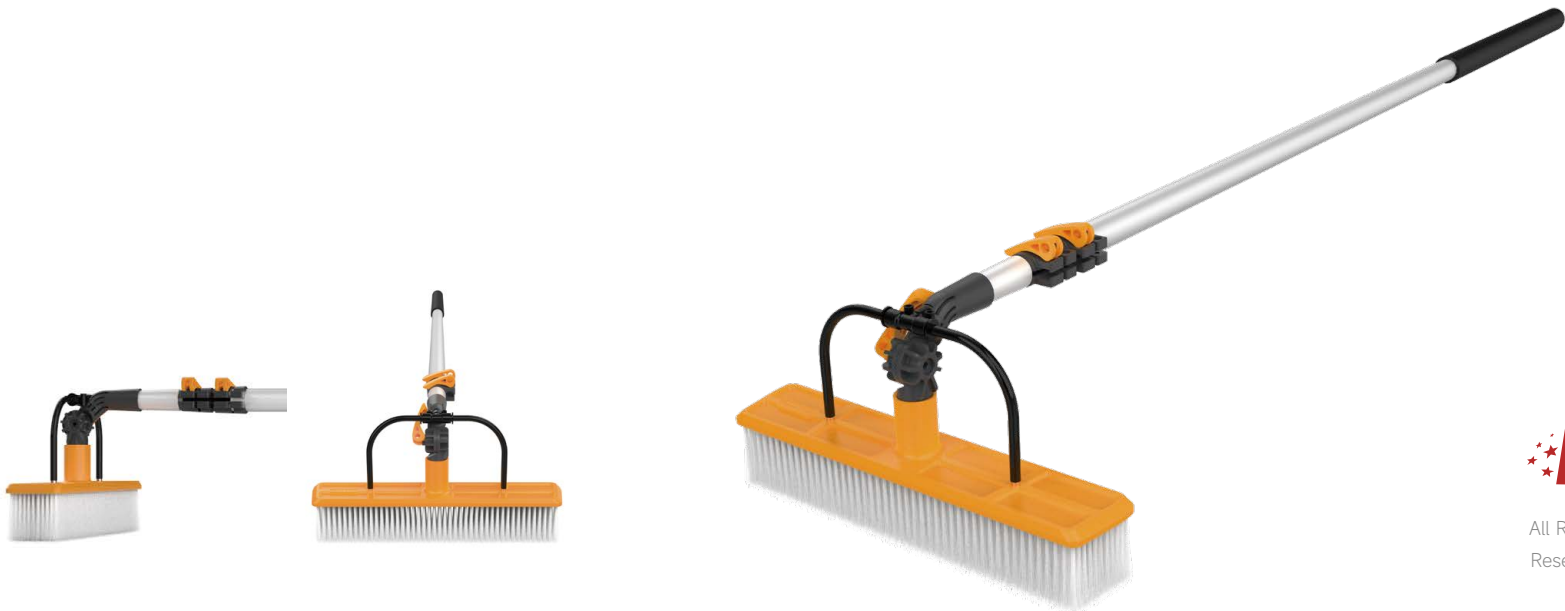


Lightweight



High-Quality

X2 KEY FEATURES



1

Adjustable Brush Angle

Wide-angle brush adjustment enables thorough and convenient cleaning. Patented hundred-blade rotating design.

2

Adjustable length up to 11.4 m

Telescopic poles use high-strength aluminum alloy and carbon fiber for durability with light weight. Carbon fiber models come in 10m and 11.4m lengths, while aluminum alloy options include 3.6m/ 4.8m/ 6m/ 7.5m/ 9m.

3

Lightweight Design

Brush head weighs only 520g. Versatile for solar panels, elevated surfaces and more.

4

Quality Materials – Dependable Performance

Pure Copper Dual Nozzles; Pressure-Resistant PU Hose; High-Quality Telescopic Pole; Lightweight High-Strength Panel; Premium Brush Fibers; Long-Lasting Durability

SPECS

X2 Cleaner

Standard Edition / Dual-Use Edition

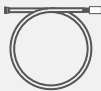
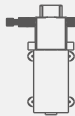
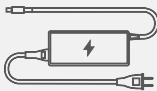
TEL Material	Aluminum Alloy					
TEL Length (m)	3.6		4.8		6.0	7.5 9.0
Hose Length (m)	23.6		24.8		26	27.5 29
Brush Width (cm)	35 / 55					

TEL Material	Carbon Fiber	
TEL Length (m)	10	11.4
Hose Length (m)	30	31.4
Brush Width (cm)	35 / 55	



Water Pump

Voltage	DC 24V
Power	120W
Power Adapter	AC100-240V , DC 24V

Configuration	 User Manual	 Water Flow Control Valve	 Tap Connector	 Anti-Freeze Hose	 Water Intake Hose	 Self-Priming Water Pump	 Power Adapter
Standard	■	■	■	-	-	-	-
Dual-Use	■	■	■	■	■	■	■



SCHWARZSTONE

G M B H

Kontakt & Projektanfragen

Schwarzstone GmbH - Offizieller XYT Vertriebspartner

Web www.schwarzstone.de

E-Mail office@schwarzstone.de

Leistungen Beschaffung, Beratung, B2B-Projektunterstützung

Region Deutschland und Europa

PV-Reinigungssysteme für professionelle Anwender

Wir unterstützen Unternehmen bei der Auswahl passender XYT Reinigungssysteme für Solarparks, Dachanlagen, Industrieprojekte und Serviceflotten.