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**Self-walking full-scene
large-piece welding robot**

Intelligent Welding System

**Explore the future
seek truth from facts
and move forward firmly**

Let Robots Truly Move, Let Business Owners Truly Use Them



Henan Winner Vibrating Equipment Co., Ltd.
Henan Fast Welding Technology Service Co., Ltd.

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Who is Xiaomeng?

Xiaomeng is an intelligent equipment that meets customers' real needs based on industrial internet and big data of processes.

Where does Xiaomeng come from?

Xiaomeng comes from the brave exploration, active practice, bold innovation and fearless persistence of countless powerful people over the years in the in-depth application of intelligence in the large-scale industrialized customized production model.

Where is Xiaomeng headed?

Xiaomeng's mission is to liberate humanity, not to replace it. It aims to free humans from high-risk, high-intensity, and highly repetitive "three-high" jobs, allowing them to engage more in creative work.

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01 Introduction to Xunhan

Henan Fast Welding Technology Service Co., Ltd., a subsidiary of Henan Winner Vibrating Equipment Co., Ltd., is located in Building D1, Aerospace Industrial Park, Hongqi District, Xinxiang City, Henan Province, shouldering the mission of providing customers with excellent welding technical services. With its professional and efficient characteristics, the rapid welding service helps the welding of structural parts of various enterprises, realizes cost reduction and efficiency increase, and ensures fast delivery, which has won wide praise from customers. As the world's leading intelligent welding service provider.

Xun Welding Service not only has advanced technology and an excellent team, but also has a profound corporate culture. Here, "heart" is our service tenet, we devote all our efforts to meet every need of customers; "innovation" is the driving force for our development, and we continue to explore new technologies and service models to lead the industry forward; "Love" is our working attitude, we are full of enthusiasm for the welding industry, and do every detail with heart; "Persistence" is our belief, and we firmly believe that only by perseverance can we go further.

It is this corporate culture that makes Xun Welding Service stand out in the fierce market competition and become a leader in the industry. We will continue to uphold this corporate culture, provide customers with better services, and contribute more to the development of the welding industry.



02 Eight Advantages of Xiaomeng H

- **Self-walking function**
The self-propelled function can flexibly reach the designated welding station, reducing the flipping and handling of welding work.
- **Hydraulic positioning system**
Hydraulic positioning ensures the stability of the robot and ensures the consistency of welding quality.
- **Lifting function**
The lifting function expands the welding range, reduces the difficulty of welding, improves the welding efficiency, and reduces the safety risk of operators.
- **Laser positioning function**
The laser positioning system can use the teach-in program of the first workpiece to repeatedly weld the subsequent workpieces, so as to achieve the effect of reducing programming.
- **Data cloud storage function**
The data cloud storage function can store the current, voltage, welding time and length during welding.
- **Automatic gun cleaning function**
The one-stop gun cleaner can help us quickly complete the wire cutting, cleaning, oil injection and other operations of the welding gun, which greatly improves the operation efficiency.
- **Mobile phone remote control function**
The mobile phone remote control function can remotely detect the running status of the robot in the mobile APP.
- **Real-time monitoring capabilities**
Real-time monitoring system, which can detect the welding process in real time and detect intelligently.

Xiaomeng H-intelligent application

Standard Edition features

- BMS data acquisition
- Robot and welder data acquisition
- GPS data collection
- Touchscreen human-computer interaction function

Upgraded features

- Standard version software features
- Welding video capture
- Self-plans the working trajectory
- Chassis driving anti-collision warning

Customized features

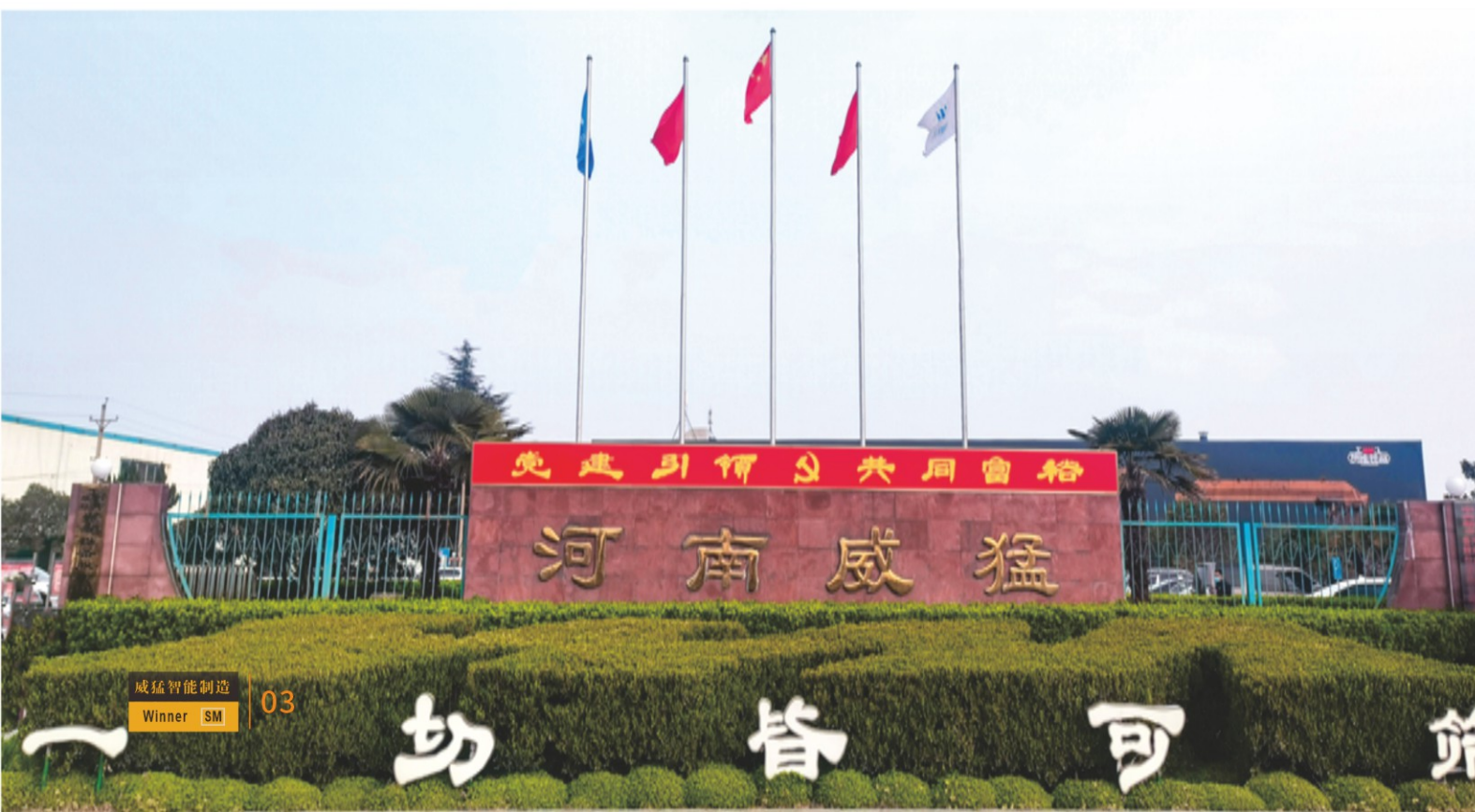
- Any feature of the Standard or Upgraded Edition
- Deployment of Ningmeng AI Agent
- Face Recognition Security Alarm System
- User-specific features

03 Introduction to Weimeng

Henan Winner Vibrating Equipment Co.,Ltd., "National Manufacturing Single Champion Demonstration Enterprise", "National Enterprise Technology Center". The predecessor of the company was founded in 1954 and restructured as a state-owned enterprise in 1994. The company specialises in the research and development, design, manufacturing and sales of high-end intelligent equipment in the field of green and low-carbon.

The company started from vibration, grew up in screening, and now has achieved high-end intelligent equipment. High-end intelligent equipment providers and service providers who are committed to serving and promoting the development of global green and low-carbon fields. The company has always adhered to the corporate culture of innovation and learning and the enterprise spirit of self-reflection. With intellectual property rights as the centre and the eight-character policy of "green, low-carbon, digital and intelligent" as the grasp, it has built a new company's double-frequency screen design platform (summer) and thermal energy utilisation intelligence. There are three major platforms: platform (business) and circular economy technology platform (week). Relying on the "new manufacturing management model of flexible production". Focus on the five major fields of "screening and sorting field, circular economy field, scrap steel pretreatment field, intelligent bulk material processing field, and intelligent robot equipment field", and promote "intelligent, efficient, energy-saving and environmentally friendly" products.

At the same time, the company closely follows the national policies and industry dynamics, develops overseas markets with the help of the "Belt and Road" policy, and successfully realises business transformation and upgrading.



04 Patents of Xiaomeng



Self-walking full-scene large-piece
welding robot
The world's first

WINNER

05 Product Information

	
Name	Self-propelled full-scene large-scale welding robot (Xiaomeng a harrier)
Model	WMM-10iD/8LHH500
Net weight	1780KG
Dimensions	2830*1605*1550mm
Minimum turning radius	4800mm
Battery parameters	48v, 70Ah
Number of batteries	1
Maximum driving safety speed	10Km/h
Cruising range	15-20Km(Winter)/20-30Km(Summer)
Horizontal weld width	LT650-H3850mm
Vertical welding height	LT915-V3725mm
System power	26.8KW
Repeatability accuracy	±0.03mm
Welding method	Argon (80%) +Carbon dioxide (20%) or carbon dioxide
Welding posture	Horizontal welding, flat welding, vertical welding, Overhead Welding
Wire specifications	Diameter φ0.8mmφ1.6mm-welding wire
The robot itself	FANUC M-10iD/8L

05 Product Information

	
Name	Self-propelled full-scene large-scale welding robot (Xiaomeng a leopard)
Model	WMM-10iD/8LHF500
Net weight	1270KG
Dimensions	2054*1385*1652mm
Minimum turning radius	1100mm
Battery parameters	48v, 140Ah
Number of batteries	1
Maximum driving safety speed	3Km/h
Cruising range	19Km
Horizontal weld width	LT650-H4012mm
Vertical welding height	LT915-V3270mm
System power	26.8KW
Repeatability accuracy	±0.03mm
Welding method	Argon (80%) +Carbon dioxide (20%) or carbon dioxide
Welding posture	Horizontal welding, flat welding, vertical welding, Overhead Welding
Wire specifications	Diameter φ0.8mmφ1.6mm-welding wire
The robot itself	FANUC M-10iD/8L

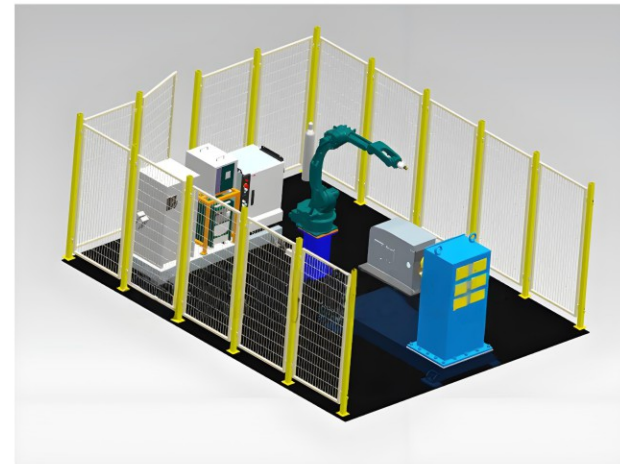
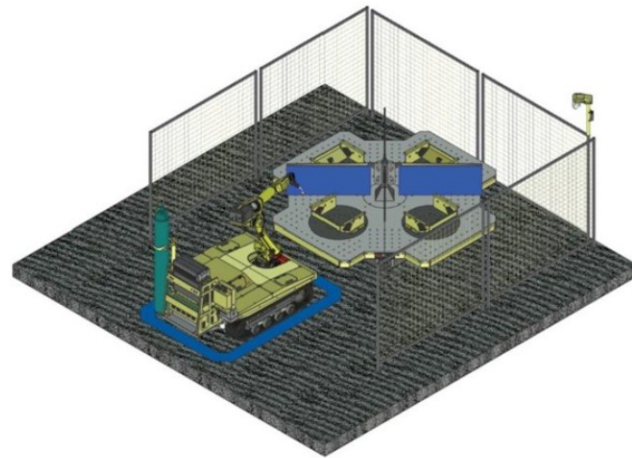
05 Product Information

	
Name	High-altitude Welding Robot (Xiaomeng a harrier Pro)
Model	WMM-10iD/8LHG500
Net weight	3880KG
Dimensions	4200*1320*2360mm
Battery parameters	48v、140Ah
Number of batteries	1
Maximum driving safety speed	2Km/h
Cruising range	1-3Km((Winter))/1-5Km(Summer)
Horizontal weld width	2700mm
Vertical welding height	5000mm
System power	26.4KW
Repeatability accuracy	±0.03mm
Welding method	Gas Metal Arc Welding
Welding posture	Horizontal welding, flat welding, vertical welding, Overhead Welding
Wire specifications	Diameter φ0.8mmφ1.6mm-welding wire
The robot itself	FANUC M-10iD/8L

05 Product Information

	
Name	Boom Welding Robot (Xiaomeng a eagle)
Model	WMM-10iD/8LHY500
Net weight	3360KG
Dimensions	3647*1318*1796mm
Battery parameters	48v、140Ah
Number of batteries	1
Maximum driving safety speed	10Km/h
Cruising range	15-20Km(Winter)/20-30Km(Summer)
Horizontal weld width	Rotation of ±275 Degrees
Vertical welding height	3200mm
System power	26.4KW
Repeatability accuracy	±0.03mm
Welding method	Gas Metal Arc Welding
Welding posture	Horizontal welding, flat welding, vertical welding, Overhead Welding
Wire specifications	Diameter φ0.8mmφ1.6mm-welding wire
The robot itself	FANUC M-10iD/8L

06 Competitor Comparison



Xiaomeng H+ positioner

Flexible movement: no need to move large workpieces
Lifting capability: wider vertical working range
Simple programming: even beginners can get started
Outdoor operable

VS

Competitor Products

Fixed position, suitable for small-batch workpieces
Fixed height
Requires professional personnel
Fixed position, non-movable

Features: Xiaomeng H+ positioner.

Definition: The subversive of traditional welding workstation.

Advantages

1. Xiaomeng H can move freely back and forth, left and right, up and down, which makes the welding range of the workstation larger and can cover more workpiece sizes.
2. Xiaomeng H can be opened separately for other non-standard welding operations.

One set of equipment, two application scenarios, kill two birds with one stone.

07 Weld Seam Comparison



Machine Welding



Manual Welding

Finished Product Display



Vertical Welding



Circular Multi-layer Multi-pass Welding



Lap Welding



Circular Surfacing Welding



T-joint Fillet Welding

This is the future of welding!

08 Platform-Based and Ecological Management Model



Fast Welding industry internet platform

○ Create Didi in the industrial field

Provide Fast Welding services

Fast welding service provides one-stop welding service for enterprises by providing comprehensive welding solutions, high-quality consumables supply and professional talent support. It is helpful for enterprises to reduce operating costs and improve welding quality, so as to stand out in the fierce market competition.

Build a Fast Welding platform

Through the input of raw material suppliers, welding robot users, welding service providers, and financial leasing, the whole process of welding tasks is docked and managed after the system background is organized, and the data collected in this process is output in terms of welding knowledge sharing, process regulations, and industry news information.

○ Innovative Practices

Technological Innovation

The latest welding technologies and intelligent algorithms ensure the consistency and stability of weld quality.

Scenario Innovation

It can not only provide suitable welding solutions for most industries, but also launch customized welding service plans in response to the needs of specific industries.

Management Innovation

By introducing Internet of Things technology, Xunhan can monitor the operating status and location information of equipment in real time, providing data support for equipment management.

Product Innovation

Modular design enables quick adaptation to different welding scenarios and requirements.

Model Innovation

Welding equipment and service resources are integrated and optimally allocated, with flexible rental and purchase plans provided.

Service Innovation

It provides one-stop services including equipment selection, technical consultation, installation and commissioning, maintenance, intelligent fault diagnosis, and remote maintenance.

09 Introduction to Xiaomeng System

Overview of Xiaomeng's System

Applied Equipment	Welding Robot	Cutting Robot	Coating Robot	Intelligent Sorting Robot
System Name	Xunhan	Suqie	Yitu	Beiduofen
Naming	WAW	WFC	WEC	WHS
English Full Name	AW-Agile Welding	FC-Fast Cut	EC-Easy Coat	HS-Hyper Sort

○ WAW System

It uses a 3D camera for photo-taking and modeling, identifies weld seams through point cloud computing, imports big data on welding processes, and generates executable welding processes via artificial intelligence.

Through methods such as vision (2D and weld pool cameras), sound, and ultrasonic waves, real-time feedback on weld inspection results is provided based on the inspection algorithms and models independently developed by Xunhan.

It automatically generates the optimal walking trajectory for the Xiaomeng Robot and determines the optimal welding position based on this trajectory.

By leveraging digital twin technology, the synchronous operation of virtual welding and Xiaomeng Robot welding is realized; with the help of big data analysis and the learning algorithms of Xiaomeng Robot, real-time analysis is conducted on equipment operation data, and equipment failures are predicted simultaneously. Additionally, it can be integrated with the workshop management system to achieve digital management of smart factories.



10 Introduction to Ningmeng AI Platform



LIME MENG AI is an artificial intelligence work assistant independently developed by Ruo Neighborhood Intelligence under Winner Co., Ltd., which can be privatized and professionally deployed. It has powerful knowledge search and integration ability, can quickly and accurately respond to all kinds of complex problems, and provide users with comprehensive and accurate information.

In the future, LIME MENG AI will act as Xiaomeng's "smart brain", and operators can easily search for knowledge and quickly solve various problems encountered in the welding process by chatting with Ningmeng AI. Whether it is the optimization and adjustment of welding parameters or the welding challenges of special materials, LIME MENG AI can provide professional solutions with powerful algorithms and data processing capabilities.

LIME MENG AI endows Macey with more intelligent human-computer interaction experience and more efficient problem-solving ability, which makes welding work more intelligent and convenient, injects new vitality into the development of welding field and leads the industry to a new era of intelligence.

○ LIME MENG Intelligent Agent

Solve complex matters with inherent patterns



11 Xiaomeng Home

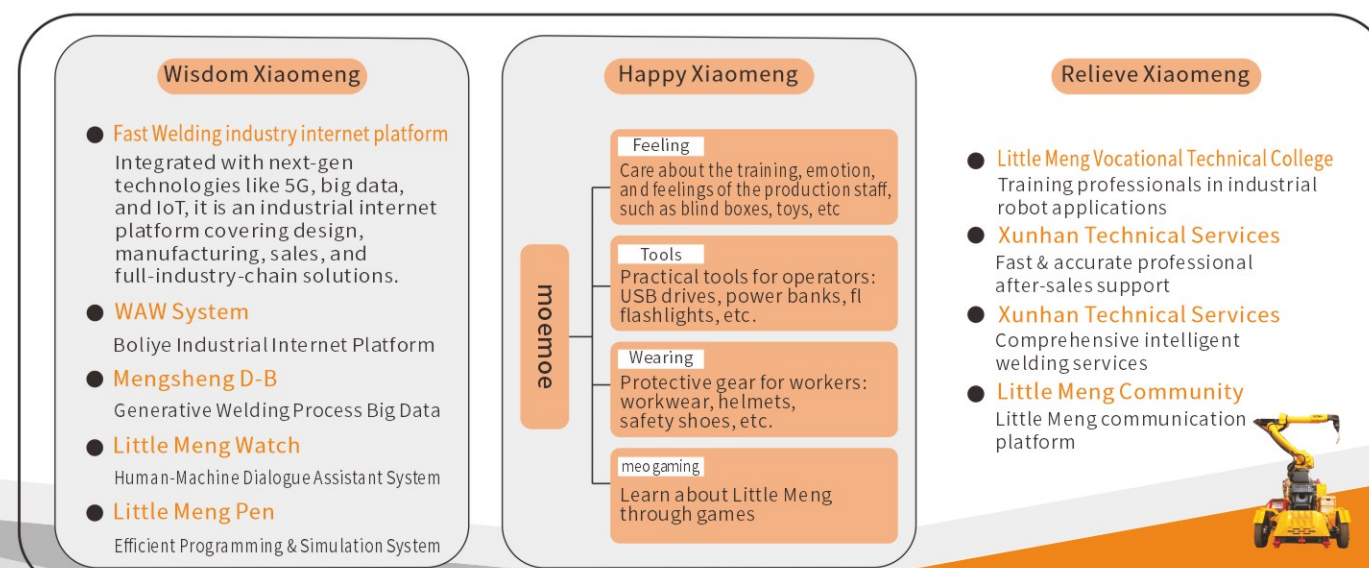
Xiaomeng's home is a platform specially created for Xiaomeng welding robot students for technical exchanges, experience sharing, and points incentives, which not only have our own knowledge base, but also other students' experience and skills, and experience sharing can be learned.



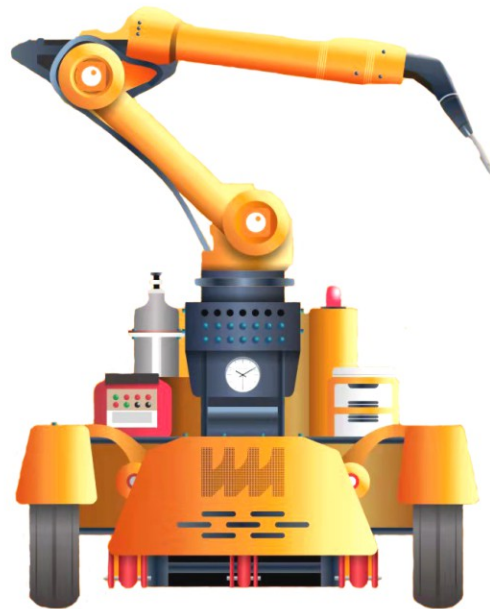
○ Xiaomeng: Focusing on three scenes, talk about three changes



In fact, there are three Xiaomeng in the world

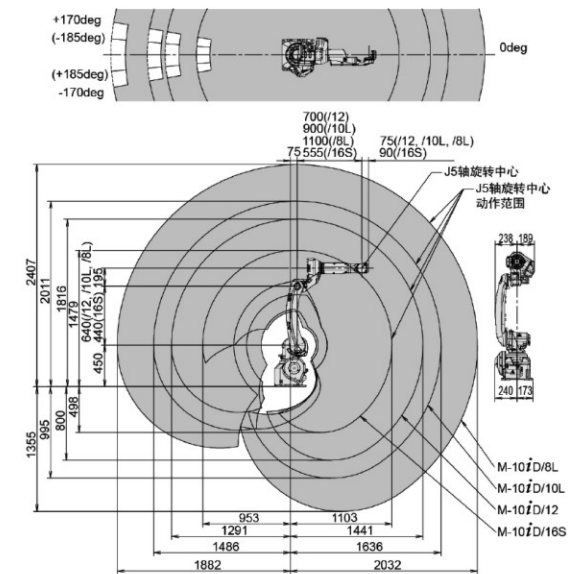


12 Arc Welding Function of Xiaomeng H



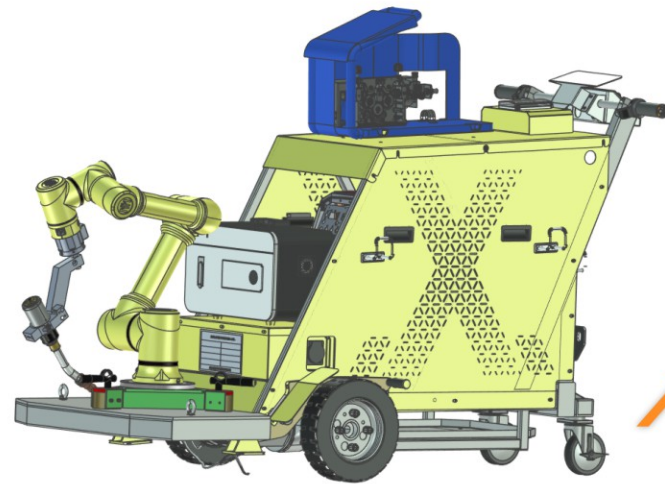
function	introduce
Contact Positioning	It can automatically find out the offset between the actual position of the workpiece and the teaching position through the touch of the workpiece's memory contact sensor, and compensate for this offset in the subsequent actual welding process.
Arc tracing	During the swing process, the weld seam is tracked according to the current change.
Multi-layered and multi-channel	It only needs to teach the basic path once, and the stacking times and stacking rules of the welding path are designed through instructions to meet the welding needs.
Collision detection	In case of accidents or operation errors, emergency avoidance to avoid equipment damage to the greatest extent.
Pendulum welding function	Support sinusoidal, arc, figure-8 swing welding, you can choose the period or length to set the swing reference.
Intermittent soldering function	It supports high-speed intermittent welding function for fish scale welding.
Dry run function	After completing the trajectory teaching, it can enter the dry running function, at this time, the robot does not start the arc, but only runs the robot trajectory, which is convenient for quickly detecting the correctness of the trajectory.

13 Ontology Parameters of Xiaomeng H

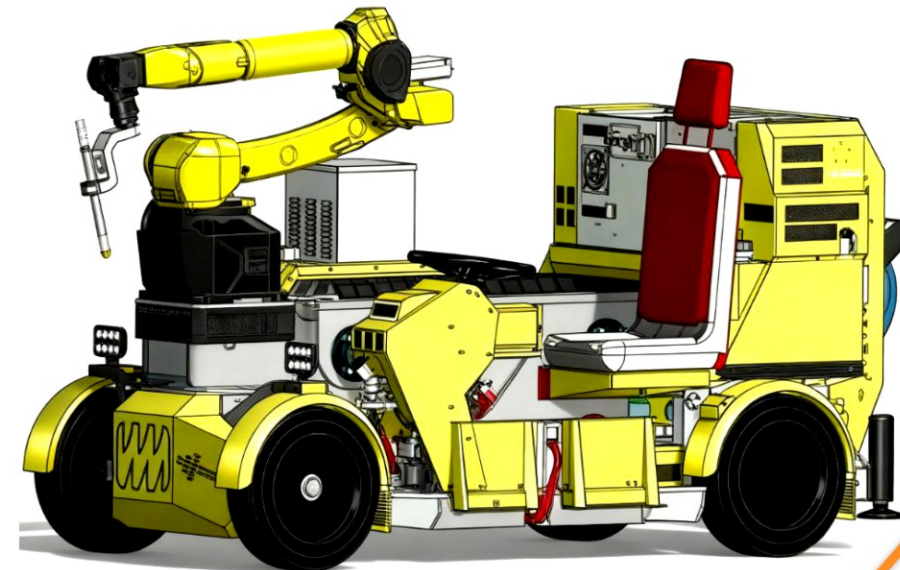


Project			Performance characteristics
name			FANUCM-10ID/8L
construct			Vertical Multi-Joint
Number of Axes			6
Wrist handleable mass			8Kg
Position repeatability			±0.03mm
Achievable radius			2032mm
Installation Method			Ground、overhead suspension、inclined angle
The weight of the robot			180Kg
Action Scope	Basic Axis	J1 Axis (Rotation)	340°/370°(Options)
		J2 Axis (Front and Rear)	235°
		J3 Axis (Vertical and Horizontal)	455°
	Axial Arm	J4 Axis (Rotation)	380°
		J5 Axis (Swing)	360°
		J6 Axis (Torsion)	900°
Maximum Speed	Basic Axis	J1 Axis (Rotation)	5.93 rad/s 6.4 rad/s(Options)
		J2 Axis (Front and Rear)	4.10 rad/s
		J3 Axis (Vertical and Horizontal)	7.94 rad/s
	Axial Arm	J4 Axis (Rotation)	6.63 rad/s
		J5 Axis (Swing)	6.28 rad/s
		J6 Axis (Torsion)	15.71 rad/s
Load Capacity	Allowed Torque	J4 Axis (Rotation)	16.1 N·m
		J5 Axis (Swing)	16.1 N·m
		J6 Axis (Torsion)	5.9 N·m
	Allowed moment of inertia	J4 Axis (Rotation)	0.63 kg·m2
		J5 Axis (Swing)	0.63 kg·m2
		J6 Axis (Torsion)	0.061 kg·m2

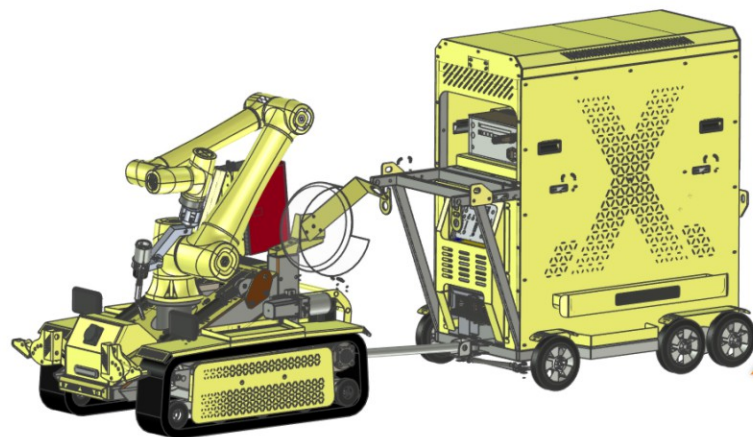
14 Xiaomeng Series Products



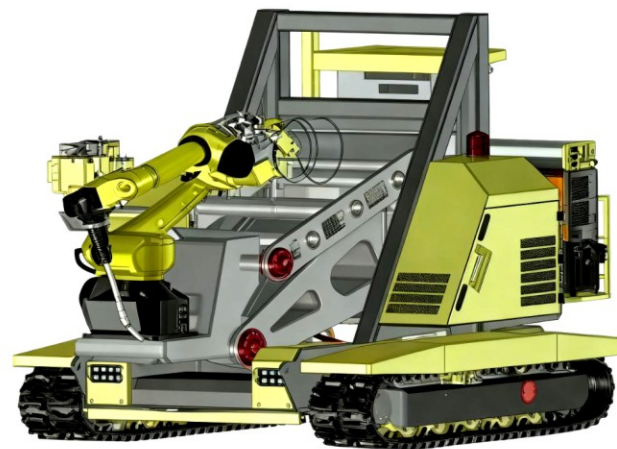
Self-propelled Full-scenario
Small-area Welding Robot
Xiaomeng-X



Self-propelled Full-scenario
Plasma Cutting Robot
Xiaomeng Q-Wolf



Self-propelled Full-scenario
Small-area Welding Robot
Xiaomeng-xPro



Self-propelled Full-scenario
Large-component Welding Robot
Xiaomeng-Tiger I



Self-propelled Full-scenario
Flame Cutting Robot
Xiaomeng Q-fox

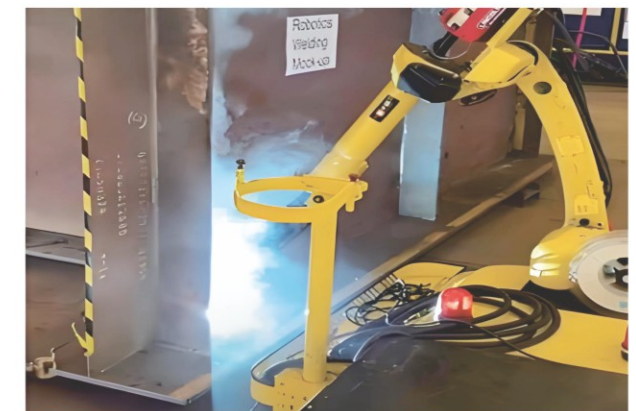
15 Demonstration of Practical Cases

Transformer Industry



Self-propelled Full-scenario
Submerged Arc Welding Robot
Xiaomeng H-MAI

Shipbuilding Industry



Self-propelled Full-scenario
Spider Wall-climbing Robot

Steel Structure Industry

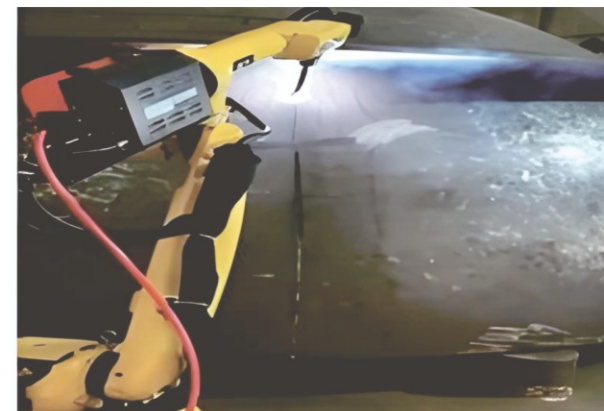


VR Coating Robot
Xiaomeng-T

Container Energy Storage Cabinet Industry



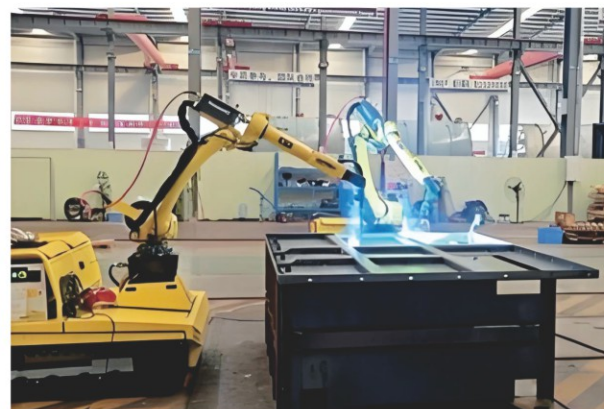
Pressure Vessel Industry



Transportation Industry



Dual-Machine Collaboration



Steam Turbine Industry



Petrochemical Industry



Outdoor Welding



Steel structure industry



Industrial Furnace Industry



Environmental Protection Equipment



16 Cooperating Enterprises

