



ROADIANT PRODUCT MANUAL



Digital-Intelligent Road Construction & Maintenance Expert

• Brand New Construction Robots • Intelligent Construction Machinery • Digital Construction Platform

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FROM SMART VEHICLES TO DIGITAL ROADS, THE INNOVATOR LEADING THE INTELLIGENT TRANSPORTATION NETWORK.

ABOUT ROADIAN

ROADIAN - Digital-Intelligent Road Construction & Maintenance Expert

Roadian (Suzhou) Intelligent Technology Co.,Ltd. incubated by a team with years of experience in intelligent connected and autonomous vehicle technology and product development, is an innovative technology company focusing on digital road construction and maintenance solutions.

The company has deep expertise in intelligent robots and digital construction, accumulating a strong technological and product foundation. With a mission of "intelligence, efficiency, and cost reduction," it leverages its advantages in intelligent connected and robotic technologies to meet the digital transformation needs of traditional industries, creating customized solutions for infrastructure construction scenarios.

Currently, it has built a full lifecycle product matrix for road construction and maintenance, covering new intelligent robots, intelligent mechanical equipment, and digital construction management platforms, facilitating the digital upgrade of engineering construction and promoting the implementation of intelligent construction platforms and the digital development of the industry.

Drive the Intelligent Transformation of the Construction Industry. Build the Smart Worksite of the Future

500+

Partner

100,000+km

Total Construction Mileage

11,000+m²

Factory Area

70+

Honors & Certifications

Technical Advantages – Core Technologies Building Industry Barriers

Independent R&D Capability

Core technologies include AI algorithms, multimodal sensing, edge computing, and more.



Patent

More than 36 invention patents in robot control, equipment connectivity, and more.



Core Business - Full chain solution, empowering intelligent transportation construction

WUJU Robotics

Function: Automation of complex operations such as road marking.

Technical Highlights: AI algorithm + multi-sensor fusion, millimeter-level construction accuracy, etc.

Advantages: Shorten the construction period by more than 50%, reduce labor risks, and alleviate traffic congestion



Intelligent Survey Robot (Subgrade)



Intelligent Marking Robot



Sports Field Marking Robot



Road geometry parameter inspection and acceptance robot



Building Layout Robot

Intelligent Machinery

Function: Install sensors/controllers/data analysis modules to upgrade traditional equipment.

Technical highlights: Remote monitoring, intelligent scheduling, energy consumption optimization, etc.

Advantages: Reduce operating costs by more than 30% and extend the equipment lifespan by more than 20%.



Autonomous Compaction System



Intelligent Collision Avoidance System



Intelligent Thermoplastic Extrusion Road Marking Machine

Digital Construction Solution

Function: Integrating robots, kits, and construction data to achieve full-process management.

Technical Highlights: Real-time monitoring, intelligent analysis, dynamic scheduling, etc.

Advantages: Improve management efficiency by over 40% and enable data-driven decision-making.

Airport/Railway Layout Solutions

Intelligent Airport Pavement Layout Solution

Railway Track Layout Solution

Roady21 Smart Traffic Safety Interactive Platform

Professional Team - Top Talents Driving Innovation and Development

Core Management Team

A team of master's and doctoral degree holders from Wuhan University, Huazhong University of Science and Technology, Nagoya University, etc.

R&D Team

Accounting for over 60%, covering fields such as robotics engineering, artificial intelligence, and the Internet of Things



Company Address



Head Office

Suzhou High Speed Rail New City Extraordinary City Center



R&D

Wuhan Kotei Intelligent Connected Vehicle Software Industrial Park



Equipment Production Base

Wuhan Phoenix Mountain Industrial Park
Goyu Intelligent Industrial Park

Partners



CONTENTS

01	WUJU - Intelligent Robot	
	Intelligent Survey Robot(Subgrade)	01
	Pre-Marking Robot	03
	Field Marking Robot	05
	Road geometry parameter inspection and acceptance robot	07
	Building Layout Robot	09
02	Intelligent Machinery	
	Autonomous Compaction System	11
	Intelligent Collision Avoidance System	13
	Intelligent Marking Vehicle	15
	Smart Controller	17
03	Digital Construction Solution	
	Airport/Railway Layout Solutions	19
	Roady21 Smart Traffic Safety Interactive Platform	21
04	New Media Matrix	
	New Media Matrix	23

WUJU - Intelligent Survey Robot(Subgrade)



Intelligent Survey Robot (Subgrade) is an auxiliary construction robot that can automatically carry out road surveying, marking and piling, mainly serving the side pile, middle pile, vertical control, accurate leveling, pipe culvert excavation and other measurement and piling procedure involved in the pilling and excavation of subgrade construction, and improving the overall construction efficiency and quality through efficient and accurate surveying and piling.

Parameter

Robot Body					
Dimension LWH	≤947mm*786mm*650mm	Motor Parameters	Brushless DC 2x400W	Front/Rear Wheelbase	582mm/582mm
Max Speed	≤1.5m/s	Min Turning Radius	In-place rotation	Battery Parameters	Lithium battery 48V 15Ah
Suspension	Single swing arm independent suspension	Wheel Diameter	255mm	Drive Type	Four-wheel two-wheel drive
Battery Operating Temperature	-10~45℃	Weight	≤100kg	Control Terminal	Android tablet
Communication	CAN	Safety Equipment	Servo brake anti-collision bar	Protection Rating	IP22
Accuracy					
RTK Positioning Accuracy	Horizontal: ±(8+1*10-6D)mm		Vertical: ±(15+1*10-6D)mm		
Static Positioning Accuracy	Horizontal: ±(2.5+0.5*10-6D)mm		Vertical: ±(5+0.5*10-6D)mm		
Functions					
Function Items	Project management, user management, RTK calibration, measuring/plotting center lines/edge lines/lane lines, leveling, drawing standard grids, earthwork volume measurement				

Feature

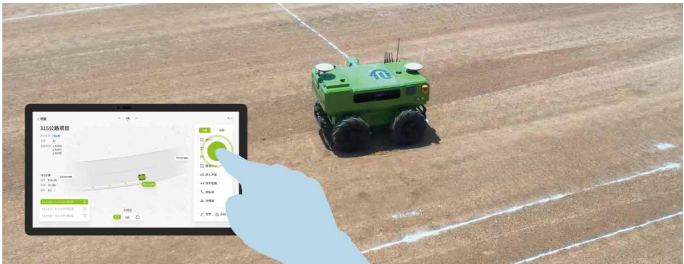
Fully Automatic Complex Survey Task Completion

Edge Line Layout, Center Line Layout, Earthwork Grid Layout, Culvert Excavation Line Layout, Cross-Section Measurement, Earthwork Volume Measurement, Center Stake Elevation, Measurement, Precision Grading



Big Data Analysis

The AI engine analyzes project progress and quality in real-time to assist in project decision-making.



Digital Drawings

Robot can adapt to complex terrains, integrate diverse survey functions, be equipped with a large-capacity battery and material box, achieve high-precision positioning, intelligent navigation, and autonomous path planning. It is a master of line-drawing in highway construction, an efficient survey tool, and a trustworthy construction drawing printer for engineers.



Application Scenario



Edge Line Layout



Center Line Layout



Leveling



Standard Grid Layout



Pile Number Marking



Pipe-culvert Layout

WUJU - Pre-marking Robot

Perfect combination of high-precision positioning and robotic operation

Up to 10 hours on a single charge, With quick-swap battery support

Intuitive and easy-to-use app

Maximum speed 3.6km/h

Reliable and repeatable cm-level marking accuracy

Adapts to various rough terrains like grass and gravel roads

Supports import of multiple design file formats

High efficiency, 10 times faster than manual operation

Multifunctional design, compatible with various spray equipment sizes

The Pre-marking Robot is an auxiliary robot that can automatically survey, mark and paint on the ground, aiming at improving operation efficiency, safety and quality.

Parameter

Robot					
Dimension(L*W*H)	582mm*550mm*485mm	Motor	400W*2	Maximum Gradeability	20°
Weight Without Paint	30kg	Maximum Speed	3.6 km/h	Minimum Turning Radius (mm)	0°(Turn in place)
Wheelbase(mm)	400mm	Battery Type	Lithium 48V/15Ah	IP Grade	IP3x
Drum Volume	10L	Battery Operation Time	10 hours	Operating Temperature	-10°C~60°C
Pre-markings					
Drawing Speed	3.6 km/h	Drawing Material	latex paint/Titanium White Slurry	Drawing Accuracy	≤1.5cm
Drawing Types	point, line, curve, arrow, text, letter, shape				
Controller					
Controll Device	Android tablet				
Controll Software	Supports a variety of line drawing tasks, including point sampling with real-time drawing capability, importing road parameters, integrating CAD drawings, and perimeter tracing. Supports operation in both online and offline modes.				

Application Scenario

Expressway
Accurately measure road surface flatness and cracks to ensure safe high-speed driving and improve road maintenance efficiency.

Municipal Road
Efficiently detect road surface defects and settlement to assist in urban road maintenance and ensure citizen travel safety.

Parking Lot
Quickly scan parking space layout and ground conditions to optimize parking space planning and improve management efficiency.

Special Markings
High-precision recognition of road markings and special markings to ensure clear and compliant traffic signs.

Sports Field
Accurately measure field flatness and slope to meet professional sports field standards and enhance the sports experience.

Airport Runway
Comprehensive detection of runway surface conditions to ensure safe takeoffs and landings and meet high aviation standards.

Case

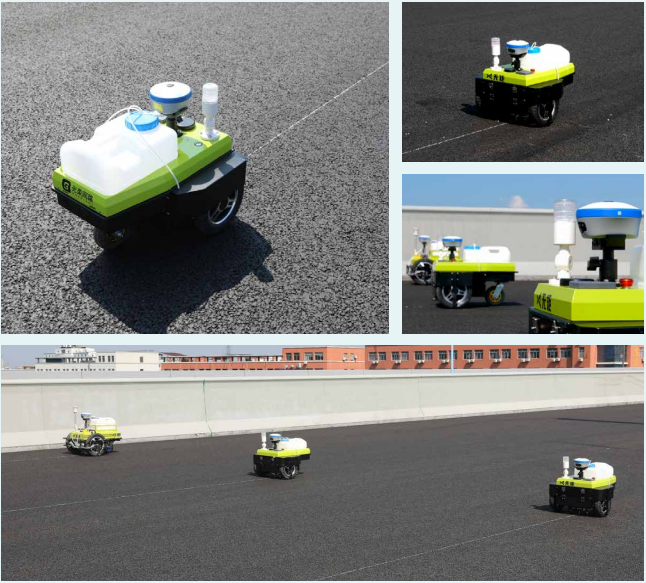
The Fuyang Section of the Xuhuai-Fuyang Expressway

The Xuhuai-Fuyang Expressway is an important transportation artery connecting Xuzhou, Huaibei and Fuyang, and it is also a key component of Anhui's "Five Verticals and Ten Horizontals" expressway network. The Fuyang section is 49 kilometers long and is built to the standard of a new four-lane expressway.



Yuyao Xihuan South Road Elevated Road

The supporting road of the Southwest Park of Yuyao Economic Development Zone is the first urban elevated expressway in Yuyao. It starts at the intersection of Liangzhou Line and Nanlei Road, with a total length of 8.448 kilometers. It adopts a combination of elevated and ground roads.



WUJU - Field Marking Robot



The Roadiant Sports Field Marking Robot is an intelligent piece of equipment specifically designed for the construction and maintenance of sports fields. It integrates high-precision navigation and positioning, AI path planning, and intelligent control technology to achieve end-to-end digital management from measurement to construction. This helps create standardized and efficient modern sports projects, enabling businesses to reduce construction costs by 30% and shorten construction timelines by 50%.

Parameter

Robot					
Dimension(L*W*H)	650mm*750mm*540mm	Motor	400W*2	Maximum Gradeability	20°
Weight Without Paint	45kg	Maximum Speed	3.6 km/h	Minimum Turning Radius (mm)	0°(Turn in place)
Wheelbase(mm)	400mm	Battery Type	Lithium 48V/7.5Ah	IP Grade	IP3x
Drum Volume	10L	Battery Operation Time	8 hours	Operating Temperature	-10°C~60°C
Survey					
Drawing Speed	3.6 km/h	Drawing Material	latex paint/Titanium White Slurry		
Drawing Width	5cm~15cm, Adjustable	Sports Field Type	Soccer,American football	Drawing Accuracy	≤1.5cm
Controller					
Controll Device	Android tablet				
Controll Software	Built-in models for various types of sports fields;Supports custom editing of sports field models; Adjustable line width;User-friendly and easy to operate.				

Feature

Centimeter-Level Precision, Centimeter-Level Standards

Utilizing Beidou/GNSS dual-mode positioning combined with LiDAR fusion navigation technology, and dynamic error compensation algorithms, it achieves ±1cm line marking accuracy, ensuring that field markings for soccer, basketball, tennis, and other venues strictly adhere to international competition standards.

Intelligent Template Library, One-Key Operation

Built-in library of 30+ mainstream field templates, supports CAD drawing import and custom editing. Parameters can be set via a touchscreen, with operations starting within 10 minutes, boosting construction efficiency by 60%.

Full-Process Intelligent Control

Equipped with an advanced AI system for automatic task planning and flexible adjustment of marking paths. The adaptive material supply system precisely controls dispensing, eliminating issues like frayed lines and uneven thickness found in traditional manual applications.

User-Friendly Interactive Design

7-inch color touchscreen with a graphical user interface, supporting gesture zoom and voice prompts. Personnel with zero experience can operate independently after just 2 hours of training, significantly reducing reliance on manual labor.

Flexible Adaptation for Multiple Scenarios

Modular design supports various ground materials including synthetic rubber, asphalt, and concrete. Multiple operation modes are available, ensuring stable performance in harsh environments and meeting all-weather, all-terrain construction needs.

Digital Construction Management

Real-time upload of construction data to a cloud platform, automatic generation of work reports (including trajectory maps, paint consumption, construction duration, etc.), and remote monitoring via mobile devices, enabling transparent management of project progress and quality.

New Benchmark for Green Energy Efficiency

The intelligent flow control system precisely matches paint usage, saving 15% in materials compared to traditional equipment. Low-power motors and circulating cooling technology reduce energy consumption by 30%, promoting green construction practices.

Continuously Evolving Intelligence

Supports online OTA upgrades, continuously optimizing path planning, obstacle avoidance strategies, and other functions through algorithm iterations, ensuring the device remains intelligent and maintains long-term industry-leading performance.

Case



WUJU - Road Geometry Parameter Inspection and Acceptance Robot



Road Geometry Parameters Inspection and Acceptance Robot overcomes the pain points of traditional inspection methods. Capable of autonomous inspection operations, it integrates multiple advanced sensors and proprietary core technologies. It conducts static data collection with high-precision positioning and millimeter-level measurement accuracy, covering the entire highway cross-section. It simultaneously collects seven core parameters in a single operation, enabling data visualization and automated report generation on a cloud platform. Highly adaptable to various environments, it increases operational efficiency by 200% compared with traditional methods, allowing for full-section inspection and facilitating intelligent and efficient quality management in road engineering.

Parameter

Robot					
Dimensions L * W * H	920mm*700mm*1000mm	Motor Parameters	400W*4	Maximum Gradeability	30°
Front/Rear Wheelbase	605mm/605mm	Maximum Speed	1.5m/s	Turning Radius （mm）	0
Wheelbase	650mm	Battery	Lithium 24V30Ah	Suspension Type	Four-wheel independent suspension
Wheel Diameter	328mm	Drive Type	Four-wheel differential	Charger	AC220V
Weight	85kg	Minimum Braking Distance	0.2m	Remote Controller	2.4G / 200m
Detection parameters					
RTK Positioning Accuracy	Horizontal: ±(8+1×10 ⁻⁶ D)mm		Elevation: ±(15+1×10 ⁻⁶ D)mm		
Static Positioning Accuracy	Horizontal: ±(2.5+0.5×10 ⁻⁶ D)mm		Elevation: ±(5+0.5×10 ⁻⁶ D)mm		
3D laser scanning	High-precision 3D scanning, modeling and simulation		Laser Survey Accuracy	0.5mm@1m, 5mm@5m, 15mm@10m	
Total station measurement accuracy	±2mm +2ppm to ±5mm +5ppm				
Controller					
Control Terminal	Android tablet				
Software	Enables project and user management, and supports detection of longitudinal elevation, centerline deviation, width, cross slope, side slope, and flatness.				

Inspection Item

Subgrade Construction



Pavement Construction



Thickness

Longitudinal elevation

Centerline deviation

Width

Flatness

Cross slope

Inspection basis

JTG 3450-2019 Field Test Methods of Highway Subgrade and Pavement

JTG F80/1-2017 Inspection and Evaluation Quality Standards for Highway Engineering

CJJ 1-2008 Construction and Quality Acceptance Specifications for Urban Road Engineering

JTG 5210-2018 Highway Performance Assessment Standards

Application Scenario



Highway subgrade construction inspection and acceptance



Highway pavement surface construction inspection and acceptance



Municipal road pavement construction inspection and acceptance



Regular inspection of key road sections, for proactive maintenance

WUJU - Building Layout Robot



The Building Layout Robot is a smart layout device designed for application in various large-scale construction scenarios, including commercial buildings, high-rise residential structures, road and bridge projects, and complex industrial plants. It can accurately extract key marking information such as building structures, pipelines, doors, and windows from imported BIM models or CAD drawings. By leveraging an advanced multi-sensor fusion positioning system, the robot achieves millimeter-level precision in architectural marking and positioning, flawlessly printing various construction markers with pinpoint accuracy.

Parameter

Robot			
Dimension(L*W*H)	370mm*380mm*500mm	Motor	100W*2
Operating Temperature	0℃~40℃	Maximum Speed	3.6 km/h
Battery Operation Time	8h	Battery Type	Lithium 24V5Ah
Weight Without load	19kg	Maximum Gradeability	5°
Turning Radius (mm)	0 (Turn in place)	IP Grade	IP22

Feature



The entire system is suitable for layout operations in various scenarios, including indoor and outdoor floors, walls, and ceilings.

Application

The Building Layout Robot has been deployed to handle on-site layout tasks in projects by companies such as China Construction Eighth Engineering Division, China Construction Dongfang Decoration, China Overseas Building, and Anhui Construction Engineering Sanjian Group.



Wushang Dreamtime Plaza



Digital Economy Industrial Park



Bay Eco International Hotel



Sheraton Zhaoqing Hotel

Autonomous Compaction System

The Autonomous Compaction System (ACS) utilizes a range of advanced technologies including autonomous driving, machine group collaborative scheduling, 3D digital paving, dynamic obstacle avoidance, and intelligent compaction. Compared to traditional manual operation, the use of autonomous compactors results in significant savings in labor, mat

Feature



24-hour autonomous driving with unmanned operation throughout the process.



Multi-device collaborative operation and fleet coordinated scheduling.



Full-process online display with real-time 3D interface monitoring.



Automatic parking and obstacle avoidance ensure safety during the process.

Smart Device

Equipped with high-precision wide-detection sensors to perceive the surrounding environment and comprehensively obtain job site information.

Utilize precision motors and reliable structures for precise control, improving mechanical operation efficiency and quality.

Achieve precise decision-making through high-performance autonomous driving controllers and provide optimized operation strategies.

Connected platform



Automatically import drawings and present the operation process in 3D graphics.

Make the process quality visible, and use different colors to mark the compaction times.

Conduct real-time on-site monitoring and fully record the real-time management of the operation scenario.

Provide timely alarms for anomalies, with real-time alerts for equipment malfunctions and operational irregularities.

Application Scenario



Road Construction

Reduce costs, improve quality and enhance efficiency



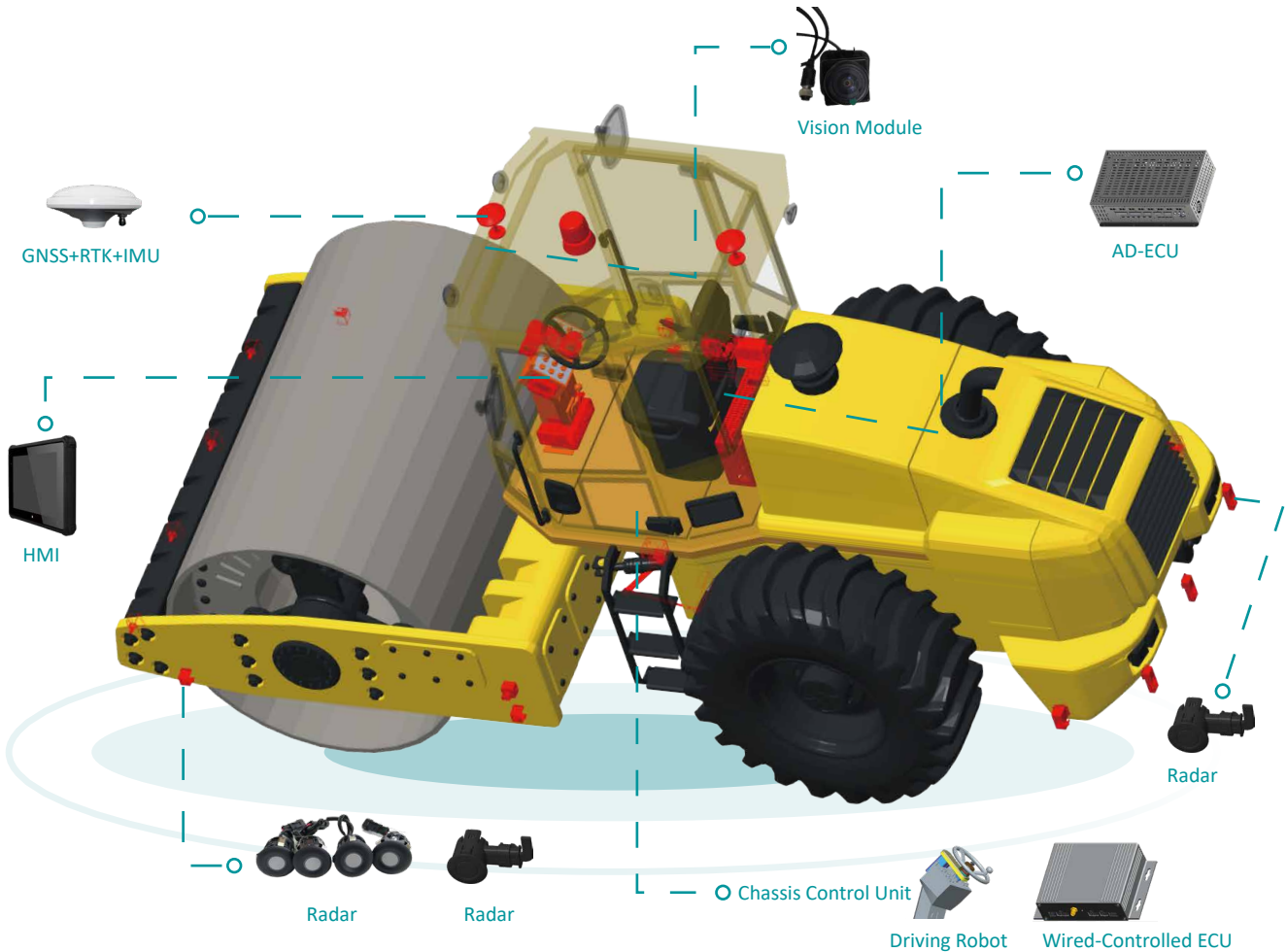
Road Emergency Rescue

Reduce safety risks



Operation in High - risk Road Sections

Reduce casualties



Intelligent Collision Avoidance System

Intelligent Collision Avoidance System is composed of radar sensor, 360° panoramic view, braking controller, HMI, safety redundancy system, etc. It realizes the perception and detection of personnel, machinery, equipment, vehicles and other obstacles around the construction machinery through vision and radar sensor, and carries out grading warning and active braking according to the potential collision risk level.



• Radar

Surrounding detection, high sensitivity and long detection range (0.5m-5m).

• 360° panoramic view

Support 3D view, HD resolution, FOV >4m



• Safety bumper

Easy installation without changing the original structure



• HMI

Synchronous display of radar and 360° panoramic fusion image, supporting audible and visual alarm



• Braking Controller

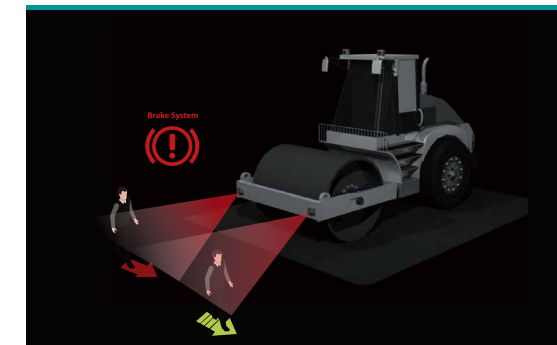
Derived from quality of vehicle regulations, optimized for complex scene of construction machinery and safety redundancy design

Feature



Graded Collision Warning

Grading warning, from early warning to active braking.



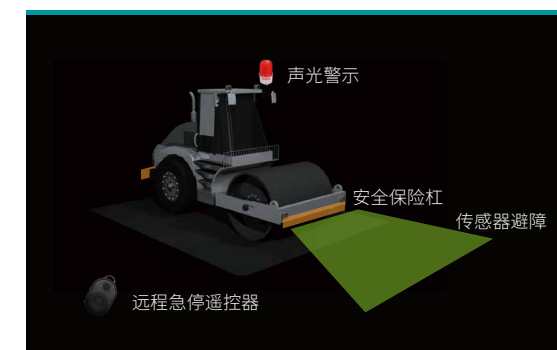
Active Emergency Braking

Actively control the brake to avoid injury when operator not taking the brake action.



Integrated blind area monitoring

Integrate the radar detection results the panoramic view to provide the driver with the most intuitive surrounding environment information



Multiple safety redundancy

Multiple warning and protective devices, including audible and visual warning, obstacle avoidance sensor, safety bumper, and remote emergency stop control.



360° panoramic view

360° HD panoramic view, supporting bird view, and independent pictures as of front, rear, left



24 hours

System supports 24 hours operation with comprehensive security.

Intelligent Marking Vehicle

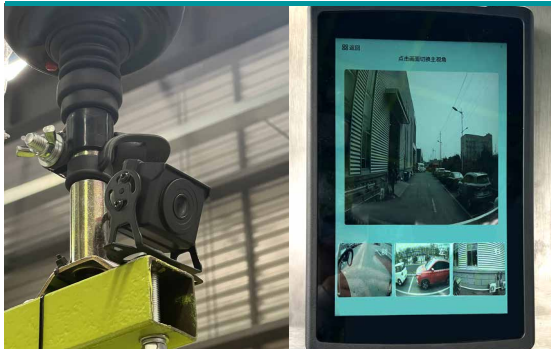


The Intelligent Marking Vehicle(Thermoplastic Extrusion) is a new-generation automated marking system that integrates traditional material melting, line marking, and intelligent driving. By importing design drawings or collecting real-time points, the machine can autonomously complete road marking tasks. Equipped with various sensors, it ensures high marking accuracy while ensuring driving safety. The system supports seamless switching between autonomous and manual driving modes, enhancing operational safety and adaptability.

Parameter

Vehicle Parameters			
Dimension L*W*H	6003mm*2384mm*2780mm	Rated Power	74KW/99HP@2600RPM
Weight (fully loaded)	7250kg	Compressor Capacity	0.49m³/min 0.8MPa
Fuel tank capacity	180L	Drive angle	30°
Material tank capacity	500L	Minimum Turning Radius	4.9m
Fuel	Heating Oil No. 1 or No. 2 (U.S./Canada) Standard Light Diesel (China)	Static Transmission Gearbox	CVT
		Speed	0~24KM/H
Controller			
Controller	10.1-inch Vehicle-Mounted Triple-Protection LED Control Screen (High-Temperature Resistance, Waterproof, Dustproof, High Brightness, High Reliability)		
	Supports multiple marking programs, providing convenient editing tools and a user-friendly graphical preview display. Supports intelligent line-following operations; after adding the line-following module, it can automatically complete road re-marking tasks. Supports intelligent automatic marking operations; after upgrading the system, it achieves automatic longitudinal and lateral movement control and real-time marking operations. Supports intelligent safety parking to ensure safe mechanical operation during production.		

Feature



360° Surround View Assistance

Real-time image display from four independent high-definition cameras (front, rear, left, and right) ensures safe vehicle operation.



Intelligent Automatic Marking

Handles various automatic and manual marking tasks. With the addition of an automatic line-following feature, it achieves automated road re-marking operations.



Remote diagnosis in progress

Intelligent Diagnostics and Safety

Equipped with dedicated sensors throughout the vehicle for real-time monitoring and diagnostics, providing maintenance recommendations. One-click access to after-sales warranty service ensures convenient repairs.



Intelligent Safety Parking

Supports smart parking to ensure safe mechanical operations during production.



Smart Equipment Management

Equipment operation data can be managed via the cloud, including remote positioning, geofencing for pre-setting operational zones, and offering customized leasing services to customers.



Smart Equipment Upgrades

Regular OTA (Over-the-Air) software updates provide safer and smarter functionality.

Smart Controller

Basic Version



Screen sizes:			
4.3 inch	7 inch	10.1 inch	
480*272	800*480	1024*600	

- Backlight brightness:400 nit
- Touch type:Resistive
- Processor: Dual-core processor

Functions

- Independent control of 2 material ports
- Independent control of 2 glass bead spray guns
- 5 preset line patterns
- One-key line pattern switching
- Control of extrusion hydraulic feed motor
- Automatic control of material temperature / thermal oil temperature
- Supports 20 languages
- Suitable for hand-push and small ride-on marking machines

Pro



- Screen size: 10.1 inch
1280*800
- Backlight brightness:700 nit
- Touch type:Capacitive
- Processor:Quad-core processor

Functions

- Independent control of 10 material ports
- Independent control of 3 glass bead spray guns
- 99+ preset line patterns
- Customizable line pattern editing
- One-key line pattern switching
- Speed control of extrusion hydraulic feed motor
- Automatic control of material temperature / thermal oil temperature
- Automatic pressure control of screw air compressor
- Supports multiple languages
- Suitable for medium/large ride-on marking machines

Pro Max



- Screen size: 10.1 inch
1280*800
- Backlight brightness:1000 nit
- Touch type:Capacitive
- Processor: Multi-core processor with built-in NPU (1 TOPS AI computing power)

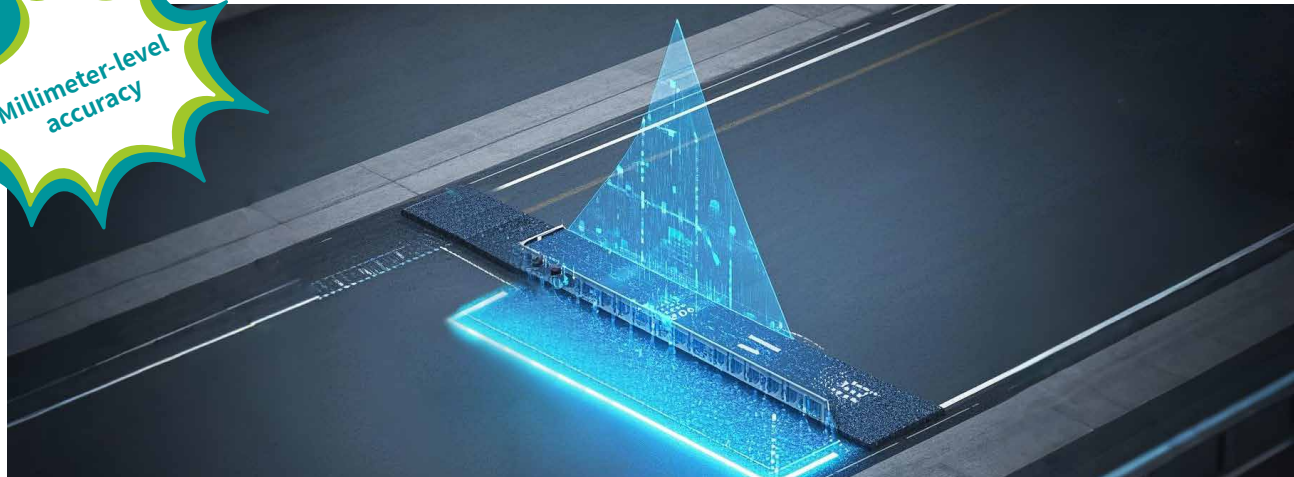
Functions

- Independent control of 10 material ports
- Independent control of 3 glass bead spray guns
- 99+ preset line patterns
- Customizable line pattern editing
- One-key line pattern switching
- Speed control of extrusion hydraulic feed motor
- Automatic control of material temperature / thermal oil temperature
- Automatic pressure control of screw air compressor
- Hydraulic travel cruise control
- 4G network support, real-time equipment status display on cloud server
- Supports multiple languages
- Suitable for medium/large ride-on marking machines



Digital Construction Solution – Highway Geometric Parameter Measurement & 3D Scanning Robot

Millimeter-level
accuracy



LiDAR scanning

Automatic total station measurement

The highway geometric parameter measurement and 3D scanning robot, featuring full-section and automated inspection technology, can efficiently and accurately complete a comprehensive assessment of pavement construction quality. It presents inspection results intuitively through visualized data, helping the construction team monitor project quality in real time. At the same time, the robot is ideal for internal quality acceptance within a group. It supports rapid inspection, significantly shortens the acceptance period, improves work efficiency, and ensures high standards and high quality in road construction.



Roughness



Thickness



Longitudinal slope



Cross slope



Pavement width



Elevation



Centerline offset

Digital Construction Solution - Intelligent Layout Solution for Airport Pavements



Full Coverage + Intelligent Drive + Long-Term Operation

The Intelligent Airport Pavement Marking Robot combines autonomous driving, artificial intelligence, IoT, and robotics to efficiently and precisely perform measurement, marking, and line-painting tasks in airport road construction. This advanced solution supports the digitalization and intelligent transformation of construction processes.

Feature

Full Coverage, Multi-Scenario Adaptability

The intelligent marking robot ensures full-scenario coverage across airports, precisely completing markings for runways, aprons, and taxiways. Its modular design allows flexible adaptation to various working environments, from standard runway lines to complex aircraft parking positions. Powered by an intelligent path-planning system, it efficiently meets the diverse needs of civil aviation projects.

Drawing-Driven, Millimeter-Level Precision

Using advanced direct-read technology, the robot supports one-click import and automatic parsing of CAD/BIM drawings. Equipped with LiDAR, high-precision positioning systems, and AI algorithms for real-time calibration, it achieves $\pm 1.5\text{cm}$ sampling accuracy—far exceeding industry standards. This reduces human error and boosts traditional sampling efficiency by over 80%, driving digital transformation in construction.

All-Weather Operation, Uninterrupted Efficiency

With a low-power energy management system and intelligent environmental awareness, the robot operates reliably in extreme temperatures (-20°C to 50°C) and supports 24/7 continuous work. Nighttime construction mode ensures safety through LED warning lights and dynamic obstacle avoidance, significantly shortening project timelines and providing an efficient solution for airport renovations and expansions.

Digital Construction Solution - Rapid Layout Solution for Railway Electromechanical Systems



Efficiently Tackling Challenges of High Equipment Volume, Complex Installation, and Precision Requirements

The Rapid Layout Solution for Railway Electromechanical Systems is designed to address the challenges of managing large volumes of equipment, diverse types, complex installations, and high precision requirements. Featuring an intuitive interface and quick data import functionality, it significantly boosts efficiency. By integrating intelligent layout technology with high-precision measurement, it ensures accurate equipment placement. Additionally, its lightweight design enables easy portability and on-site operation, providing an efficient and reliable integrated solution for railway electromechanical construction.

Feature

Ease of Use, Simplicity, and Fast Data Import	Industry Resource Integration	Lightweight Design
● Supports one-click operation with a user-friendly interface, requiring no complex training to get started. ● Enables fast data import compatible with multiple formats, significantly improving work efficiency.	● Employs intelligent algorithms and high-precision sensors to ensure accurate equipment placement. ● Provides real-time data feedback and adjustments to meet demanding construction requirements.	● Compact and portable, the equipment is ideal for use in complex on-site environments. ● Its modular design allows for rapid deployment and easy maintenance.

Digital Construction Solution - Roady21 Smart Traffic Safety Interactive Platform



The Smart Traffic Safety Interactive Platform is dedicated to enhancing construction quality and efficiency in the traffic safety industry through digital and intelligent technologies, accelerating the adoption of road digitalization. The platform integrates four core modules:

- Industry Trends: Real-time updates on road construction bids and industry news to keep users informed of market dynamics.
- Marking Encyclopedia: A comprehensive knowledge base offering professional technical insights and solutions for traffic construction.
- Popular Courses: Expert-led lectures and training programs to help industry professionals upgrade their skills.
- Marking Mall: A one-stop shop for purchasing machinery and equipment tailored to diverse traffic construction needs.

Through intelligent, digital services, the platform provides efficient and convenient industry support, driving the traffic safety sector toward higher standards.

Feature

Digital Intelligence Empowerment	Industry Resource Integration	Accelerate Technology Adoption
Enhance construction quality and efficiency through traffic safety digital intelligence technologies.	Aggregate industry trends, knowledge, training, and products into a one-stop service platform.	Promote the widespread application of road digitalization technologies, driving innovation and leadership in the industry.

Roadiant New Media Matrix

Follow Roadiant on our new media platforms for more product information and industry updates.



Official Account
光束网路





Channels
光束网路





Douyin
光束智能划线机



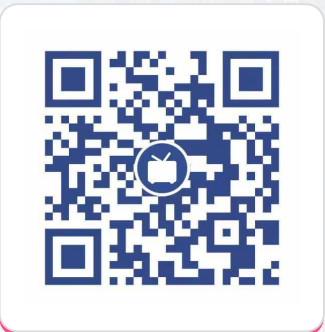


Kuaishou
光束智能划线机





bilibili
光束智能划线机



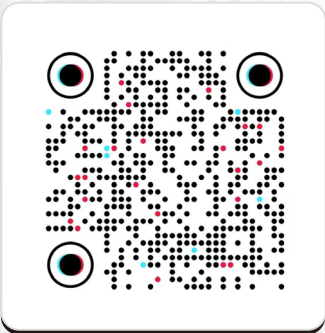


RedNote
光束网路智能施工机器人





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From smart vehicles to digital roads, the innovator leading the intelligent transportation network.



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Production Base: Weige Optics Valley Science and Technology Park, No. 11, Liufangyuan North Road,
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