

Company Profile

Founded in 1992, Zoomlion Co., Ltd. (hereinafter referred to as Zoomlion) is mainly engaged in the fields of construction machinery, mining machinery and agricultural machinery. Its leading products cover 15 categories, 81 product series and 715 model spectra. It is the first A+H-share listed company in the industry. There are 26 domestic industrial parks and 11 overseas R&D and manufacturing bases.

Zoomlion is among the contributors to industry standards. With 8 national scientific research and innovation platforms, the company has applied for a total of 19,621 patents, including 8,915 invention patents. It has led and participated in the formulation and revision of more than 580 national, industrial and group standards and 16 international standards. It has successfully developed a large number of world's best and world's first products such as the first 3,200-ton crawler crane in China, the world's largest 23,800-ton-meter tower crane, the world's longest 4,000-ton all-terrain crane, the world's longest 101-meter carbon fiber boom pump truck, the world's highest 82-meter straight-boom aerial work platform, the world's biggest 300-ton hybrid mine truck, and the world's largest wheeled tractor with 700 horsepower, earning the reputation of "heavy equipment in a big country".

At present, Zoomlion is accelerating its transformation and upgrading across intelligence, digitalization, greening, and globalization, and has successively mastered a number of key core technologies, including machinery, electrical systems, hydraulics, new materials, new energy, industrial interconnection, and artificial intelligence. Centering on Zoomlion Smart Industrial City, the company has built 23 world-leading intelligent factories to achieve fully integrated intelligent manufacturing. Its global footprint includes 32 overseas business hubs, more than 430 sales and service outlets, and 210 parts and central warehouses, serving customers in over 170 countries and regions.



Founded in 2018 and incubated by Zoomlion—a leading enterprise in the construction machinery industry, Zvalley Technology Co., Ltd. is a high-tech AI industrial Internet company. It is committed to reshaping industry, empowering traditional industrial fields and driving business model reformation through artificial intelligence. The company is among the earliest teams in the construction machinery industry to conduct research and implement application of the Internet of Things, cloud computing, big data, artificial intelligence and embodied intelligent robots. With a strong industrial foundation, extensive experience in digital technology applications, and a global perspective, it continues to drive innovation in the industry.

Seizing the opportunity of a new round of scientific and technological revolution, Zvalley continues to increase investment in scientific and technological research and development, actively deploys cutting-edge technologies such as generative artificial intelligence, visual perception, digital twin and humanoid robot. The company develops intelligent robots for industrial scenarios and AI native cloud platforms supporting embodied intelligence, driving the integrated advancement of artificial intelligence and advanced manufacturing.

Partner

CSDN
不止于代码

Tencent

Honeywell

HUAWEI

SAP

HGTECH

CSCEC

UFC

CAIT

JDT

HIKVISION

SIEMENS

amazon

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Contact Us

ZOOMLION

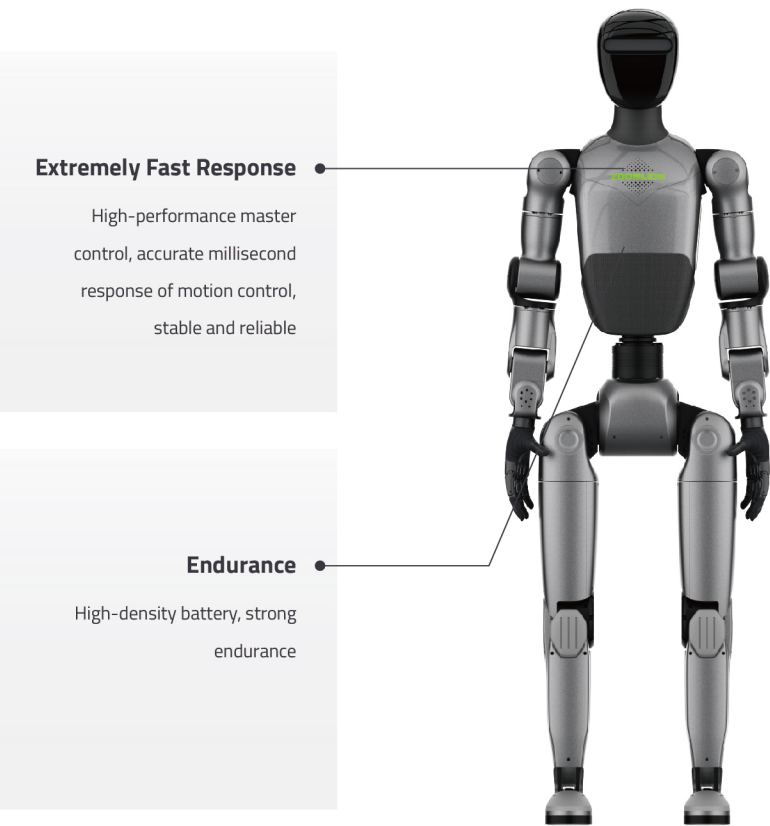
ZVALLEY

ZOOMLION Z01

Bipedal Humanoid Robot



Core Advantages



Extremely Fast Response

High-performance master control, accurate millisecond response of motion control, stable and reliable

Endurance

High-density battery, strong endurance

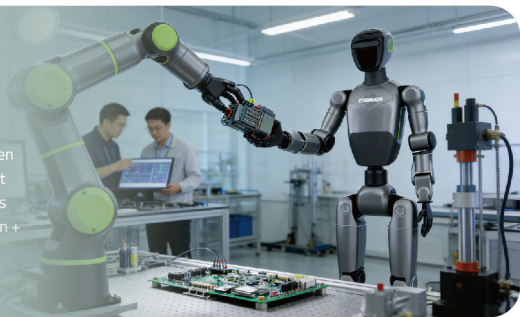
Basic Parameters

Model	ZOOMLION Z01
Dimensions	138cm
Weight with Battery	38.55kg
Total Degree of Freedom (joint motor)	31
Single-arm Degree of Freedom	7
Maximum Joint Torque	130Nm
Perceptual Sensor	1 camera + 1 voice (lidar is optional)
Basic Computing Power	10-core high-performance CPU
High Computing Power Module	NVIDIA Jetson AGX Orin
Full Joint Hollow Internal Routing	Yes
Battery Capacity	9600mAh
Movement Speed	2m/s

Application Scenarios

Robot Education

For artificial intelligence, robotics and other research, with the advantages of full-stack open source and in-depth secondary development, it accelerates algorithm verification and produces high-level results by virtue of education version + tool chain configuration.



Robot Tour

It can be applied to enterprise exhibition halls, museums, science and technology museums and other scenarios. It has the core advantages of independent navigation and obstacle avoidance, one-time drawing and lifelong use, which can effectively improve the brand image and reduce operating costs. It is equipped with a complete configuration of flagship Pro version + high-end self-navigation package as standard.



Robot Performance

It can be applied to annual meetings, press conferences and large-scale events, with the advantages of preset dance libraries and convenient program updates, able to innovate performance forms, create activity highlights, and provide flexible configuration of basic version/flagship Pro version + high-level operation and control package + application development platform.



Embodied Intelligent Development Platform

The core concept of RobotOps engineering-level embodied intelligent development platform is the engineering integration of data, software and agents. It covers the whole process of data acquisition and processing, model training, simulation verification, deployment and upgrading, and operation and maintenance monitoring in robot development. Relying on four core platforms: basic tools, reinforcement learning, imitation learning, and task orchestration, it forms a complete, efficient, and reusable embodied intelligent development system, which can be applied to intelligent product research and development and scenario implementation in many fields such as humanoid robots, industrial robots, construction machinery, and automatic driving.



Industry Pain Points

High Barriers to Technology Research and Development

The technical system is complex, the research and development threshold is extremely high, and the products are difficult to be iteratively upgraded quickly.

Scenario Migration is Difficult

The equipment adaptation cost is high, and the large-scale landing resistance is large.

Prominent Data Bottleneck

High data acquisition cost and low processing efficiency restrict the training speed and iterative efficiency of the model.

Lack of Full Life Cycle Control

Operation and maintenance costs remain high, and operation safety and reliability are difficult to guarantee.

RobotOps Core Advantages



Extreme Ease of use, Ready to use Out of The Box

Without complex underlying configuration and professional accumulation, the whole process can be used out of the box, and the hands-on trial can be completed in minutes, reducing the development threshold, taking into account the needs of professional developers and novices, and improving development efficiency.



Algorithm-Data-Computing Power Trinity to Build a Synergistic Architecture

Integrate the three modules of algorithm optimization, data management and computing power scheduling, build a trinity collaborative architecture, break the pain points of module separation, realize efficient data flow, agile algorithm iteration, accurate computing power scheduling, and improve system stability and development efficiency.



Intelligent Iteration of the Whole Process to Accelerate Product Industrialization

Open up the whole process link from embodied intelligent development to application, integrate low-code, task orchestration and other technologies, break the dilemma of separation between training results and model application, shorten the model application iteration cycle through intelligent scheduling and orchestration, and help the robot scene landing and industrialization promotion.

Agent-riven Robot

Give Robots the Ability to Think Independently · Unlock New Possibilities for Fully Autonomous Operations

Autonomous decision-making without intervention:
Agent-driven, autonomous identification, analysis, planning, and autonomous operation

Scenario adaptation and skill self-matching: perceive scene changes, automatically match skills, and cope with complex tasks

Dynamic monitoring, high fault tolerance: whole-process monitoring, real-time correction of deviations, adjustment of strategies, stability and efficiency

Self-learning, the smarter the more you use it: self-memorizing operation habits, adapting scene preferences, and "upgrading as soon as the machine is maintained"