

# UNITREE

Intelligent Robot
Industry Pioneer

**Unitree Robotics** 

Web: unitree.com.tr Tel: 0216 652 2300 Email: info@prosmt.com

Please visit Unitree Robotics Website for more related terms and policies, and comply with local laws and regulations.

Dear various users(All users), please do not modify or use robots in dangerous ways.

# CONTENTS

01

**Company Overview** 

02

Products And Operations

03

Market Application

04

Core Competitiveness

05

**Enterprise** Honor







# **Unitree Robotics**

### **Global sales lead year after year:**

It is the first company in the world to publicly retail high-performance quadruped robots and the first to achieve industry landing

### **Excellent product leadership:**

Deeply engaged in comprehensive fields such as core robot components, motion control, robot perception and decision-making, and robot Al

- Unitree robotics is a well-known civil robotics company, focusing on the independent research and development, production and sales of consumer-level and industry-level high-performance footed/humanoid robots and dexterous robotic arms.
- Unitree Robotics was invited to participate in the 2021 Year of the Ox CCTV Spring Festival Gala, the 2022 Winter Olympics opening ceremony, the 2023 Super Bowl pre-game performance, the 2023 Hangzhou Asian Games and Asian Para Games, the 2025 Year of the Snake CCTV Spring Festival Gala etc. The news of these performances had been covered many times by mainstream media such as CCTV News Network



# **Basic Information**

Date of establishment	August 26, 2016
Founder & CEO	Xingxing Wang
Total people	500 people
Company Address	No.88, Dongliu Road, Binjiang District, Hangzhou City

- Created a low-cost, high-performance quadruped robot technology solution(2013)
- High-performance quadruped robot for public retail sale(2016)
- Global sales leader in the past years
- The leader in the quadruped robot industry(Started in 2017)
- Strong integration capabilities in the quadruped robot industry chain
- Has outstanding contributions and influence in the robotics academic circle
- Quadruped robot company with IP68 protection rating certification (2021)

# **Global Sales**



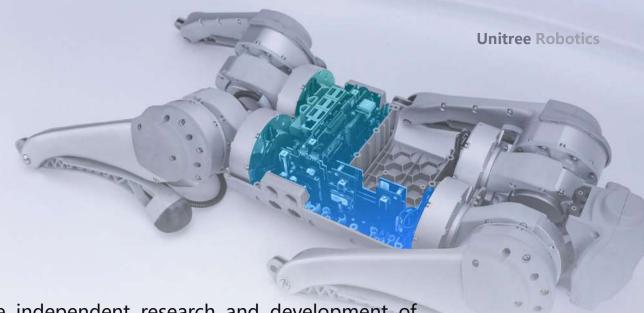
Quadruped robot sales account for 60-70% of global shipments



Global Leader in Large-size universal humanoid robot

Business scope covers more than 50% of the world's countries and regions

# Technology Accumulation



- Since 2013, Unitree Robotics has been committed to the independent research and development of consumer-level and industry-level high-performance general-purpose robots. It insists on independent innovation of software and hardware and has more than 100 patents related to quadruped robots.
- Self-developed motors, reducers, encoders and various robot sensors (camera, radar, etc.), and independently developed various robot algorithms (motion control, perception, navigation, AI, etc.)
- The universal humanoid robot H1 was developed in half a year and started mass production. It has been continuously iterated and updated within a year. It has powerful comprehensive performance and a running speed of 3.3m/s, setting a world record. It is also the world's first full-size robot that can perform somersaults on the spot. Driving a humanoid robot



UNITREE

- Promoting the development of global robotics and Al
- Bringing quadruped robots closer to more people
- Promote the implementation of industrial applications (power inspection, fire protection, safety, etc.)
- Provide a reliable and advanced scientific research platform and make outstanding contributions to robotics academic research

# Products And Operations

# Product Overview





L1 &L2

G1

2024





**A1** 



Go2



Inspection 2022



**PUMP** 2022



H1 2023



**Prototype** 



Laikago 2017



AlienGo



**B1** 2022



Fire **Control** 



**Product Expansion** 

Humanoid **Robots** 

**First** Generation

**Product Segmentation** 

Industry **Application** 

# Consumer/Research Quadrupedal Robot





- Aliengo is the only quadruped robot for industry application in China that is capable of stably walking 18cm daily steps.
- It is integrated with more sensors and multi-vision depth perception vision system.
- Master CPU is more powerful and user interface is more friendly.
- The whole machine weights 20kg, with a load of 10kg and endurance of 2-4h.

A1 2020



- The fastest running speed is 3.3m/s.
- The whole machine weights 12kg, supporting a load of 5kg, and the endurance of 1-2h.
- It is lightweight, flexible, excellent stable.
- It is equipped with integrated RGBD, vision-based autonomous tracking, etc.

Go1



- The fastest running speed is 4.7m/s.
- Intelligent Side-follow System (ISS)
- super-sensory system(SSS)10-eye detection (5 groups of fish-eye binocular)
- Built-in Powerful Al 16-core top CPU+GPU"

# Go2/2023~

### **New Creature of Embodied AI**

- Standard Ultra-wide 4D LIDAR upgrades Recognition system by 200%.
- New Creature of Embodied AI
- Battery capacity and endurance upgraded by 150%.
- Motor performance enhanced by 30%. Joint peak torque reaches 45N.m
- ISS2.0 Intelligent Side-follow System. The positioning accuracy is technically upgraded by 50%. The remote control distance is over 30m.
- Image transmission + sensor + OTA upgrade. Have fun with the new App.
- Robotic arm + charging pile + high computing power module. Go2 can be equipped with more high-tech accessories.
- Unitree Go2-W Driving All Terrain (Go2 New Model Transformative Newborn, Unlock a variety of peripheral additions, free combination, unlimited expansion)



# B2 /2023~

# **Go Beyond the Limits**

- Fastest running industrial-grade quadruped robot at 6m/s!
- Excellent terrain adaptability to ensure stable travel on slippery or uneven surfaces.
- Excellent sustained stair climbing with extremely stable and balanced.
- 170% increase in joint performance with 360 N.m of torque deliver the ultimate in performance.
- Superior obstacle-crossing ability make it easy to cross the mess of wood piles, 120cm high platforms and other obstacles.
- 100% increase in sustained load 200% increase in endurance.
- Wheeled and legged form switching breaks through endurance limitations.
- Unitree B2-W: Traverse great distances, unleash limitless potential (\*The new B2 model, equipped with high-power wheel motors, is capable of agile movement and effortless navigation across various terrain. With exceptional battery life, it ensures continuous efficient performance.)



### **Unitree Robotics**

# H1/2023~

### **Start a New Industrial Revolution**

- Moving speed 3.3m/s (world record)
- The world's first full-size electric-driven humanoid robot that can somersault on the spot.
- Combined with general AI, it empowers general applications in all scenarios: industry, service industry, etc.
- Highly cost-effective, with retail price below \$90,000.
- Specifications and powerful performance
- Ultra-light weight design, less than 50kg, with maximum joint torque of 360N.m.
- 360° panoramic depth perception
- Unitree H1-2 Upgrade: Featuring 27 degrees of freedom (excluding dexterous hands), the new
  model comes with a fully integrated internal cabling design, offering a more compact build. The
  ergonomic and bionic design enhances its futuristic feel. With built-in dual encoders, it ensures
  interference-free operation. Additionally, there is an option to expand with higher computing power
  to meet development needs.



# **Start the Agent New Era**

- Flexibility beyond ordinary people: Extra large joint movement angle space, 23~43 joint motors.
- Reinforcement learning driven: robotics technology accelerated by AI is upgrading and evolving every day.
- Force control of dexterous hands, manipulation of all things: Combined with force-position hybrid control, it is sensitive and reliable, and can simulate human hands to achieve precise.
- UnifoLM (Unitree Robot Unified Large Model): The robot world model provides a co-creation platform to create a new era of intelligent agents.

### Note:

The appearance of the product may be upgraded and adjusted in the future, please refer to the actual product. Some sample functions are still being developed and tested, and will be made available to users in the future.



# **Horizontal Expansion Scenario Extension**

**Z1** 2021~



- Weight 4.5kg, maximum load 5kg, 6 degrees of freedom, arm span up to 0.7m
- It has an innovative embedded super structure and develops a large number of integrated agricultural motors. Double motor joints is designed in parallel to realize load balance.
- It can be used alone as a flexible cooperative arm due to its open program and expansion interface to support joint force control."
- Repetitive positioning accuracy is 0.1mm."

# Unitree PUMP



### **PUMP 2023~**

- Ultra-compact and portable design, weighing just 700g
- Data visualization with real-time tracking
- A wealth of free courses that are frequently updated

### **PUMP MAX 2024~**

- 4-70kg stepless resistance adjustment for enhanced power
- Built-in reduction gearbox enables dualstage torque adjustment for smoother operation
- Multiple customized accessories to offer a professional gym experience at home

# **4D LiDAR**



### L1 2023~

- Omnidirectional ultra-wide-angle bionic 4D LiDAR
- Compact and lightweight, it measures just 75×75×65mm and weighs 230g

### L2 2024~

- 64,000 points/s effective frequency 200% year-on-year increase
- 4.5mm range resolution 78% year-onyear increase
- 360°×96° field of view (FOV) 7% year-on-year increase



# Transcendental scene

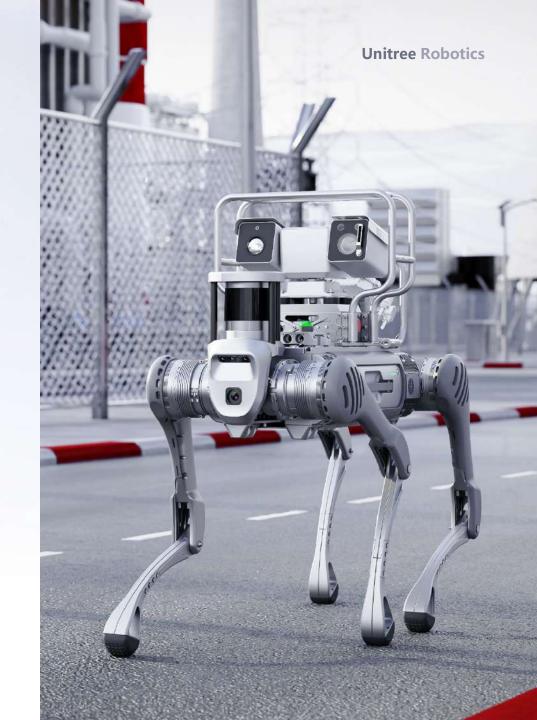
# Leading industrial intelligence

- Compared with traditional inspection robots (wheeled and tracked), quadruped robots have discrete footholds and can adapt to different terrain, such as stairs, steps, slopes, mountains and so on.
- Equipped with GPS, robotic arm, lidar and other instruments and testing equipment, they can complete a series of work (intelligent construction, survey, search and rescue, security patrol, etc.), and provide patrol inspection, exploration, material transportation and other work and services for petrochemical, electric power, railway and mineral collection.



# **Industry Leader:** Creating A New Era Of Inspection Robots

- In-depth Analysis of the Development of China's Electric Power Inspection Robot Industry and Future Investment Research Report" (2022-2029)" shows that the penetration rate of indoor and outdoor power inspection robots in my country in 2022 is about 10%, which is still at a low level.
- It is expected that the size of the power intelligent inspection market will climb to 9.02 billion yuan in 2026, with a compound annual growth rate of 27.7%.
- Since 2017, Unitree has been deeply involved in industry applications, and has carried out projects nationwide such as electric power Inspection, fire rescue and other landing applications.
- The four-legged robot B2 currently targeted at industry applications has been
  widely used in dozens of projects, including a power plant inspection robot dog
  project of the National Energy Group, a power grid 220kv substation inspection
  robot dog project, and an ultra-high voltage 500kv substation inspection robot
  dog project. The project and the fire emergency robot dog project of a certain
  provincial fire rescue corps have brought more efficient and safer solutions to
  various industries.





Firefighting robots are a type of special robots that can replace firefighting and rescue personnel in fire
rescues and enter the scene of dangerous disasters such as flammable, explosive, toxic, hypoxic or dense
smoke to detect, search and rescue, and extinguish fires, effectively solving the problems faced by
firefighting and rescue personnel. Problems such as personal safety threats and insufficient data and
information collection faced in the above places have played an increasingly important role in fire
extinguishing and emergency rescue.

### **Extremely fast response**

"Deploy quickly, act quicklyGain initiative in mission actions"

### Long range reconnaissance

It has long-range reconnaissance capabilities, grasps the overall situation on site, and provides important basis for scientific decision-making.

### Safe and reliable

It is not afraid of various dangerous environments and performs various key tasks.

# China' s firefighting robot market size trend from 2017 to 2022 19.22 15 10 8.38 5 2017 2018 2019 2020 2021 2022

Data source: Compiled by Gongyan Industry Consulting (Gongyan.com)





# **Industrial Chain**

The industrial chain is highly vertically integrated and continuous innovation promotes faster implementation of robot products.

# **Hardware**

Independently developed 90% of the core components and body structure

# **Decision**

Refining the business logic of scattered scenarios, Navigation accurately avoids obstacles and improves intelligence

# Cloud

Cloud data connection and continuous iterationSupport OTA remote upgradePlatform development tools

# **Perception**

Self-developed lidar, vision and SLAM algorithms continue to iterate to optimize cost performance

### **Control**

Improve movement speed and gait balance Stable execution of rich actions

### A

Self-developed + ecosystem coconstruction with leading AI vendors

Online voice interaction and other intelligent functions

# **Global Contribution**

Market Share

**Product** Richness

**Application Diversification** 

- By integrating core technologies related to quadruped robots, we develop self-developed high-performance motors, reducers, motor drivers, robot main controllers, robot motion control, and complete robot components. Greatly improve the integration and movement capabilities of the robot and reduce the weight
- First-mover technology and brand advantages of electric-driven legged robots

### **Unitree Robotics**



























**Domestic and foreign patents** 

**Open authorization** 

200+ 180+

- The robotics company with the most patents related to quadruped robots in China.
- Through continuous independent research and development and innovation, the company has created world-class products







# Enterprise Honor



# Opening ceremony of the Winter Olympics

 On February 4, 2022, Unitree appeared as the representative of Hangzhou city in the opening ceremony of the Winter Olympic Games, with 109 Go1 robots lined up as the words of "冬奥会".

# **Spring Festival Gala**

• On February 11, 2021, calfs "犇犇", 24 sets of A1 robots, entered the Spring Festival Gala of the Year of the Ox and performed ""Bull up"" with Liu Dehua, Wang Yibo and Guan Xiaotong.



# The Super Bowl



- On the morning of February 13th, Beijing time, during the pre-Super Bowl performance, Unitree' s four-legged robot Go1 made its grand finale with American superstar Jason Derulo' s new song "Saturday/Sunday". It made a stunning appearance in the C position of the stage and danced with many dancers. Explode the whole place together
- Super Bowl the annual championship game of the NFL Professional Football League, the largest sports event in the United States, and the most watched television program, surpassing the Oscars, the Olympic opening ceremony, etc.

# The 19th Asian Games in Hangzhou

 For the 19th Asian Games in Hangzhou, Unitree robotic dogs were used to transport discus and javelin, the first time in the history of global sporting events that robotic dogs were used for the transportation of such items, and at the same time demonstrating to the world the vitality and innovative spirit of Made in China.





# The Year of the Snake CCTV Spring Festival Gala

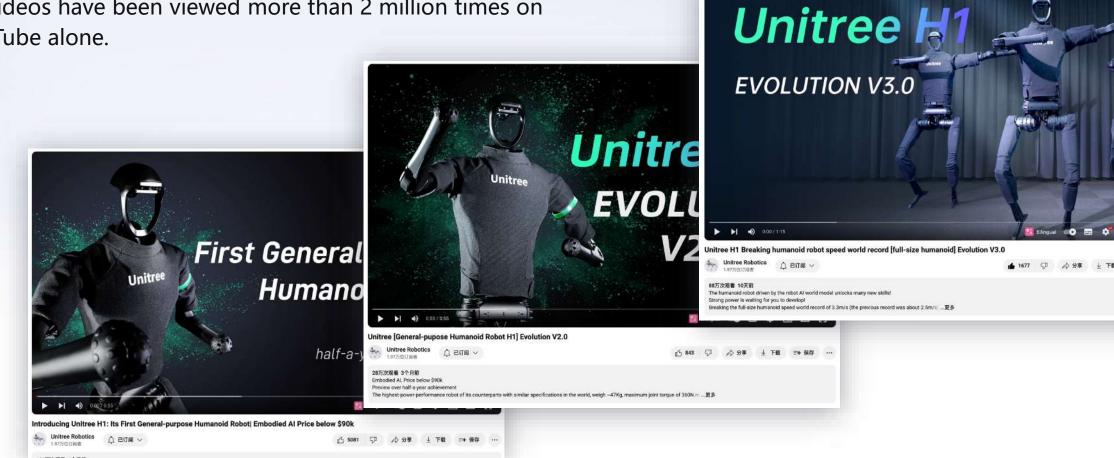
 On February 28, 2025, directed by esteemed filmmaker Zhang Yimou, 16
 Unitree H1 robots performed a stunning "YangBot" performance at the Year of the Snake Spring Festival Gala hosted by China Central Television (CCTV). This unique blend of cutting-edge technology and traditional folk culture created a mesmerizing fusion of past and future. The program broke cultural barriers and swiftly inspired a nationwide trend of similar performances.



# Popular with the public

H1 has three major updates in half a year.

 Its videos have been viewed more than 2 million times on YouTube alone.



# GTC2024

OpenAl Nvidia Unitree 黄仁勋 Figure 01 H1



- Unitree does not only provide customers with technical support such as software development and mechanical programming, but also help customers configure a lot of external equipment. Quadruped robots have been used in many application scenarios such as security inspection, ground exploration, and detection.
- At present, hundreds of brands in many application areas such as petrochemical, electric power and education have adopted the mature product solutions and technical support service of Unitree Robotics.







































# UNITREE

Only Robot!

Can Achieve Genaral A!!

### **Unitree Robotics**

Web: unitree.com.tr
Tel: 0216 652 2300
Email: info@prosmt.com

Please visit Unitree Robotics Website for more related terms and policies, and comply with local laws and regulations.

Dear various users(All users), please do not modify or use robots in dangerous ways.