cyborg

Robots Brave Risks
Virtue Upholds Life

Focus On High - Risk And Complex Industrial Environments,
Reshape The New Paradigm Of Special - Purpose Robots。

PRODUCT MANUAL



2026



Robots Brave Risks Virtue Upholds Life



About Us

The term "Cyborg" comes from the English word "Cyborg", which is a combination of "Cybernetic Organism", representing the integration of organic organisms and electromechanical devices. As stated in "The Book of Changes": "The greatest virtue of heaven and earth is to give life." Using embodied intelligence to venture into dangerous situations, we protect all living beings and ensure the well - being of all industries.

Cyborg Robotics Co., Ltd. focuses on the field of embodied intelligence in high - risk scenarios. Taking humanoid robots and embodied intelligence technology as the carriers, it is committed to "using technology to take risks on behalf of humans and using intelligence to protect living beings".

The company provides intelligent robot solutions such as multi - modal inspection and special - type safety operations for industries including electricity, gas, oil, chemicals, coal, and heavy industry. It liberates front - line workers and builds a solid line of defense for safe production. The market covers four major sectors: special - type, general - purpose, education, and data collection, with the special - type sector being the core strategic one. Relying on the generalized operation capabilities of its self - developed large - scale model and multi - source industrial detection modules, Cyborg Robotics is building a technological moat for special - type

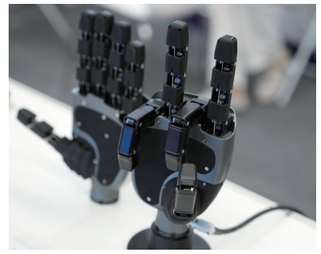
Provide Comprehensive Solutions For Industrial Intelligence.

Product Matrix

We are a company equipped with the capabilities of embodied intelligence large - scale models, ontology R & D, and mass production of hardware - software integrat-



Cyborg-W01
Wheeled Humanoid Bionic Robot



Cyborg-H02
Humanoid Bionic Dexterous Hand



Cyborg-R01
Full - Scale Humanoid Robot

Application Scenarios



Scene: Wiring harness layout of new energy vehicles, power grid wire arrangement

Tasks: Wiring harness grabbing, positioning, and plugging



Scene: SMT production line with MES-linked robots, automating the turnover of electronic component reels.

Tasks: Receives system commands to fully automate reel barcode scanning, shelving, and retrieval/recycling.



Scene: Replacing manual labor with round-the-clock intelligent inspection and maintenance for natural gas stations.

Tasks: Multi-modal detection of valve issues, thermal anomalies, gas leaks, and abnormal equipment noises.



Scene: Power plants and inspection rounds

Tasks: Open and close electrical cabinets, pull switches and turn buttons, conduct discharge treatment, and press buttons (insulated operations))

The Great Virtue Of Heaven And Earth Is Life

To Take Risks With Embodied Intelligence,
Protect All Living Beings From Harm,
Promote The Well-Being Of All Undertakings.

CYBORG-W01

Cyborg-W01

Wheeled Humanoid Bionic Robot



Ultra-High Degrees Of Freedom

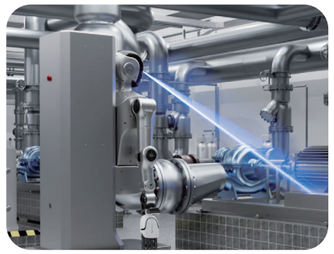
Total degrees of freedom: **53**
Single - arm span: **835mm**
Operating range: **0-2m**



Equipped with a high - density and high - torque joint motor set (with a maximum joint torque of **562** Nm), it can not only handle heavy - duty material handling but also, with the help of the bionic dexterous hand, achieve adaptive grasping and assembly of irregular and precision parts, realizing an exquisite coordination of "strength and dexterity".

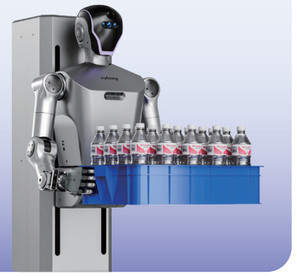
Visual collaboration system

Global inspection by the head **+** Multi - camera collaboration on the chest enables zero - blind - spot environmental perception.



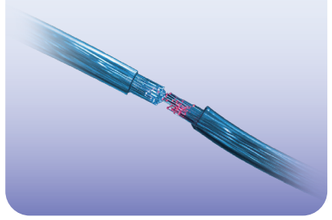
Dual-Arm Collaborative Load Capacity

The load capacity of two - arm collaboration can reach **15KG**.
It is precise and efficient, and can easily handle heavy - duty operations.



Fiber Optic Sensing Anti-Interference

Break through physical limitations, Achieve large bandwidth and low latency, And reduce power consumption and heat generation.



Scene Tasks Pioneer

Fixed - point equipment inspection, autonomous sorting and handling, deeply implemented in industrial scenarios.



Multimodal OMCI Intelligent Hub

A full - dimensional environmental perception network with multi - sensor fusion.
An independently developed, mass - producible automotive - grade "Brainwave" system.

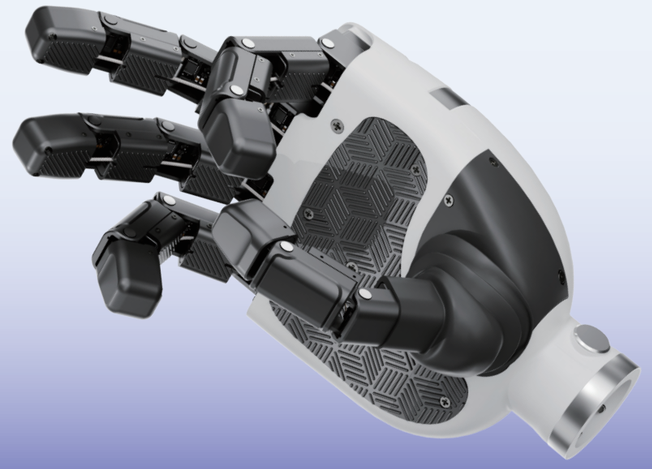
Product Parameters

Parameter name		Basic parameters
Mechanical dimensions	Length, width and height	**710 * 585 * 1600mm**
	Weight	**170kg**
	Total degrees of freedom	**53**
	Chassis degrees of freedom	**3**
	Waist degrees of freedom	**2**
	Arm degrees of freedom	**7**
	Dexterous hand degrees of freedom	**16**
	Single arm span	**835mm**
Motion performance	Maximum joint torque	**562 N.m**
	Joint motor	**High - density and high - torque joint motor set**
	Arm load	**Single - arm load: 6.5kg**
	Operating range	**0-2m**
Perceptual interaction	Monocular camera	**Have**
	RGBD depth camera	**Have**
	IMU (Inertial Measurement Unit)	**Have**
	LiDAR (Light Detection and Ranging)	**Have**
	Infrared sensor	**Have**
	Six - axis force sensor	**Have**
	Linear 4 - microphone array	**Have**
	Speaker	**Have**
	Ultrasonic radar	**Have**
	Voice noise - reduction board	**Have**
	WiFi5 / Bluetooth 5.2 / 5G	**Support**
	Perception computing power	**8 - core 200TOPS**
	External interface	**USB3.0 / Gigabit Ethernet port / DP interface**
	Back interactive screen	**Have**
Battery	Battery life	**5h**
Chassis	Moving speed	**Maximum 1m/s**
	Dimensions	**704 * 470 * 397mm**

CYBORG-H02

Cyborg-H02

Humanoid Bionic Dexterous Hand



Weight Revolution

Weighing only **750g**
Self-developed topology optimization technology structure
Weight reduced by more than **60%**



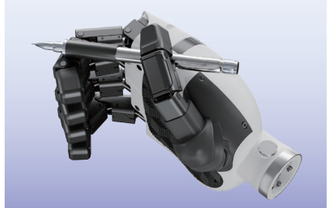
Extremely Flexible

Bionic tendon structure [**TendonFlex**]
With a total of **16** degrees of freedom,
The human - like tendons collaborate flexibly.



Multimodal Perception Fusion Technology

Tactile, visual and joint position sensors support dynamic optimization during the grasping process and enable adaptation to objects of different shapes.



Self-Developed High - Thrust Joint Module

Reporting from a height of **1m**,
Still able to use normally.

Powerful Load

Full-hand load capacity **15KG**
Single finger self-locking load capacity up to **5Kg**
Simple structure, stable and reliable, with a service life of millions of times





Product Parameters

Parameter name		Basic parameters
Mechanical dimensions	Wrist breadth	**40mm**
	Hand width	**114mm**
	Maximum hand length	**248.5mm**
	Longest finger	**104mm**
	Palm thickness	**52mm**
	Whole - hand weight	**750g**
	Number of joints	**16**
	Number of motors	**6**
Motion performance	Finger self - locking load	**5kg**
	Whole - hand self - locking load	**15kg**
	Output force of the thumb fingertip	**15N**
	Output force of the other four - finger fingertips	**15N**
	Range of the fingertip tactile sensor	**0-20N**
	Static current	**170mA**
	Communication interface	**RS485/CAN**
	Operating voltage	**12V**
	Bending degree of the four fingers	**≤90°**
	Bending degree of the thumb	**≤74.2°**
	Lateral rotation range of the thumb	**≤130°**
	Side - swing speed of the thumb	**216°/s**
	Opening - closing time of the four fingers	**1.16s**

Drive method
Tendon - cable drive

Maximum force on the fingertips of the four fingers
50N

Self - locking load of the whole hand
15kg

Four - finger fingertip output force
15N

Degrees of Freedom
6 Active + 10 Under - actuated

Maximum thumb force
50N

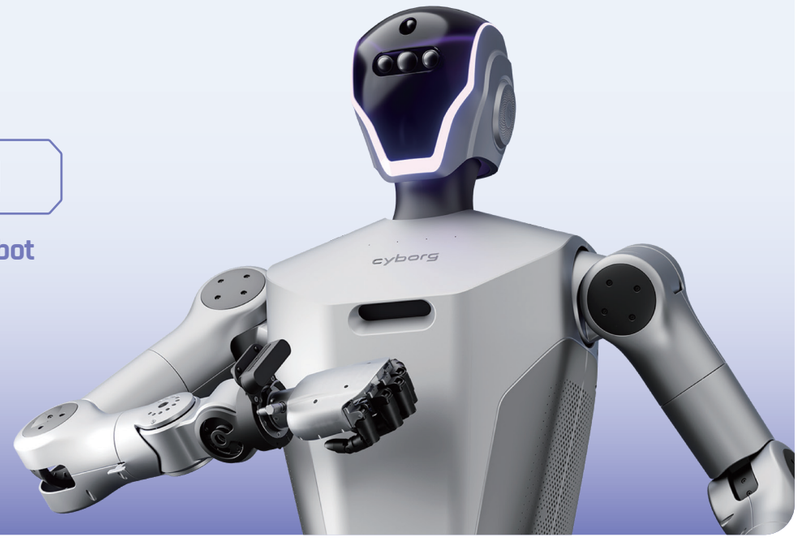
Thumb lateral rotation range
≤130°

Communication interface
RS485/CAN

CYBORG-R01

Cyborg-R01

Full - Scale Humanoid Robot



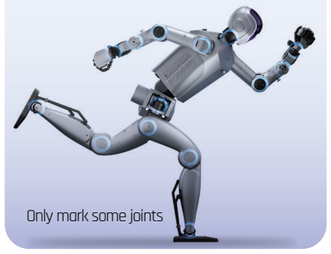
Body Size Value

Height ≈ **180 cm**
Weight ≈ **80 Kg**



Ultra-High Degrees Of Freedom

The whole body has **62** degrees of freedom,
ensuring smooth coordination similar to human joints.


Only mark some joints

Self-Developed High-Thrust Linear Module

10,000N ultra-high thrust,
Self-developed breakthroughs surmount technical barriers,
tailored for heavy-load scenarios.



Visual collaboration system

Global inspection by the head **+**
Multi - camera collaboration on the chest enables zero - blind - spot environmental perception.

Intelligent Interactive System

Seamless switching between **3** control modes,
5-layer safety control ensuring full protection.

Joystick control

AI decision-making

Voice control

Multimodal OMCI Intelligent Hub

Self-developed mass-producible automotive-grade "**BoBrain**" central model, deeply empowering intelligent dialogue, two-way audio-video breaking down barriers, **LED** back screen + multi-channel speakers with multimodal warning linkage, redefining interaction.

One Minute Quick Battery Swap

Dual-battery hot-swap design
(main battery **48V 30,000mAh +** backup power **48V 3,500mAh**)
Enables a one-minute quick battery swap without powering down, ensuring simple and fast operation.



Fiber Optic Sensing Anti-Interference

Breaking through physical limitations, high bandwidth with low latency, Reducing power consumption and heat generation.

Anti-interference Balance Guardian

Withstanding **45N·s** impulse impacts, rock-steady stability,
Self-recovery from imbalance, reliable operation in complex working

All-Terrain Adaptation Expert

Adaptive traversal of **15cm** obstacles, Slopes over **10°** / stair climbing, Navigating complex terrain with ease.

Scene Tasks Pioneer

Point inspection, autonomous sorting and handling, deeply deployed in industrial scenarios.

Product Parameters

Parameter name		Basic parameters
Robot dimensions	Height, width, thickness	**1800*578*327mm**
	Weight	**75kg (SE) , 80kg (PRO)**
	Total degrees of freedom	**62**
	Leg degrees of freedom	**6*2**
	Waist degrees of freedom	**2**
	Arm degrees of freedom	**7*2**
	Dexterous hand degrees of freedom	**16*2**
	Single - arm span	**835mm**
	Calf + thigh length	**885mm**
Motion performance	Maximum joint torque	**400N·m**
	Joint motor	**High - density high - torque joint motor module**
	Arm load	**Single - arm load: 6.5kg**
Perceptual interaction	Monocular camera	**Yes**
	RGBD depth camera	**Yes**
	IMU (Inertial Measurement Unit)	**Yes**
	LiDAR (Light Detection and Ranging)	**Yes**
	Six - axis force sensor	**Yes**
	Handheld remote control	**Yes**
	Linear four - microphone array	**Yes**
	Voice noise reduction board	**Yes**
	WiFi5/5G	**Supported**
	Back display screen	**Yes**
	Perception computing power	**8 - core 200TOPS**
	External interface	**USB3.0 / TYPEC / Gigabit Ethernet port / DP interface / Backup battery interface**
Battery	Main battery parameters	**48V 15000 mAH (SE) , 48V 30000 mAH (PRO)**
	Backup battery parameters	**48V 3500 mAH Battery**

ROBOTS BRAVE RISKS
VIRTUE UPHOLDS LIFE

Scan The Qr Code To Follow Our Official Wechat Account
For The Latest Updates And To Contact Us.

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