

ULS ROBOTICS

BES-HV

Lumbar exoskeleton robot

Comprehensive
burden reduction

30kg

Improve work efficiency

Reduces the burden on the lower back





NEW

Lumbar exoskeleton robot ULS ROBOTICS- BES HV



Waist



Burden alleviation



Assistance



Walking assistance



Data IoT

- Battery life 5-8h
- Reduce burden by 60%
- Equipment weight 5.8kg
- Maximum assistance 30kg

Side



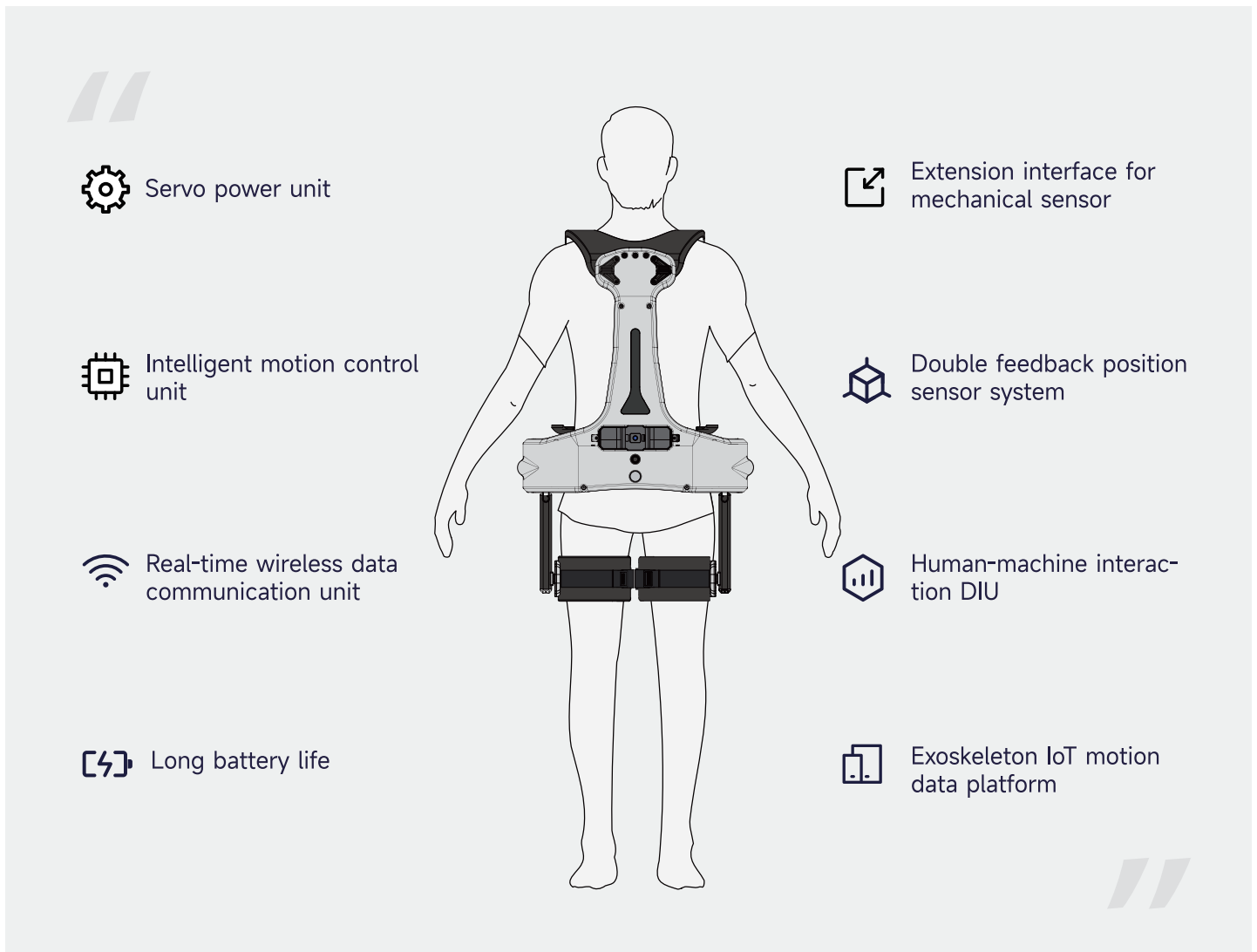
Back



BES-HV

LUMBAR EXOSKELETON ROBOT

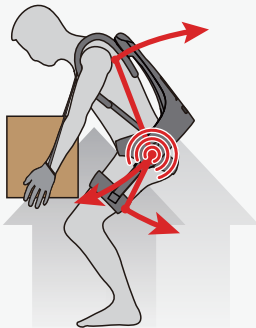
The BES-HV lumbar exoskeleton robot utilizes advanced technology including ULSrobotics' intelligent digital drives, integrated modular deceleration system and adaptive intelligent motion control. Combined with the company's proprietary software impedance, self-learning gait, AI motion algorithms and pattern recognition, it achieves high human-machine integration, augmenting waist and hip joint strength and endurance. This effectively reduces worker burden by over 60% while improving enterprise production efficiency. The exoskeleton also provides digitized health and performance data to optimize personnel management, helps prevent work-related injuries, and reduces costs associated with staff turnover and retraining.



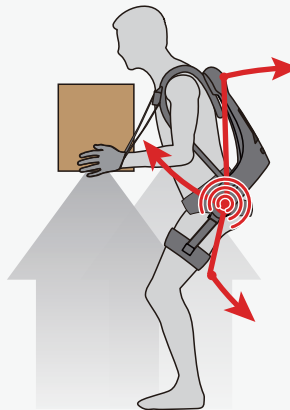
Intelligent pose recognition with multiple assistance modes

The exoskeleton utilizes integrated sensors and a high-performance servo drive system to provide personalized assistance levels to the user based on human pose control algorithms.

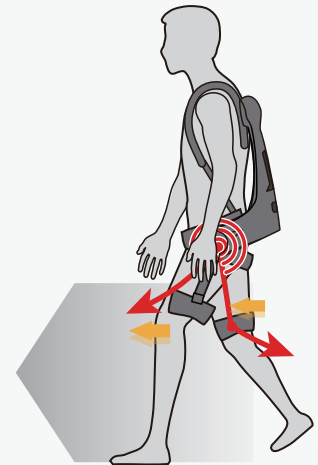
Assistance functions



Real-time handling assistance



Posture holding assistance



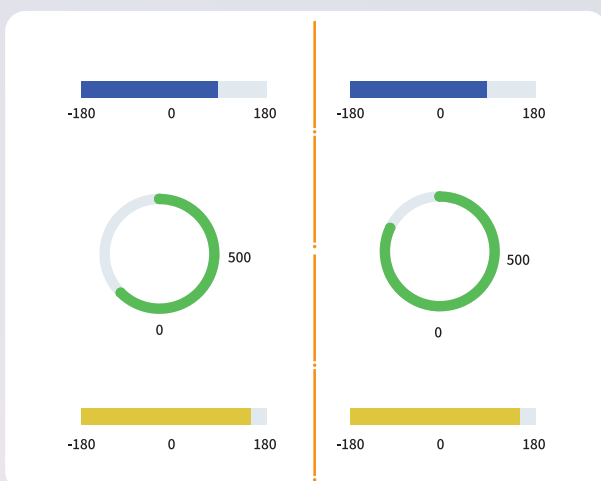
Bionic walking assistance

Real-time data acquisition with dynamic recording and visualization

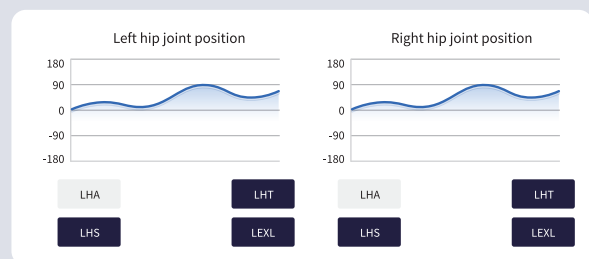
The exoskeleton robot can communicate with each other through wireless data, display the posture and assistance data of the exoskeleton in real time, and offer assistance at a customized angle.

Data function


Assistance data of the hip joint



Exoskeleton data curve



Individualized data calibration

Operating mode
Left hip joint position DEG  Calibration mode
Right hip joint position DEG

The trend of flexible manufacturing has made exoskeleton a favored tool

Solve pain points



Save manpower and reduce work intensity



Increase endurance and improve work efficiency

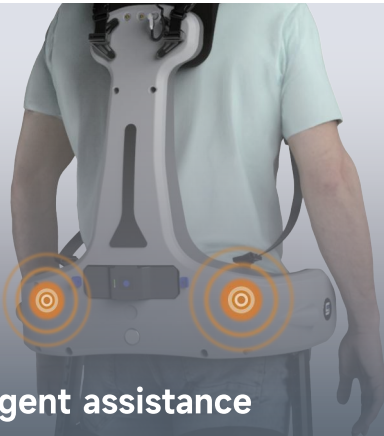


Human-machine data management to help enterprises go digital



Reduce occupational injuries and employment injuries

Advantages



Intelligent assistance

Support intelligent assistance of 15-30KG with three gears to choose from



Flexible deployment

Flexible application requirement scenarios without fixed positions



Affordable and efficient

Capable of replacing lifting equipment, with low cost and higher efficiency



Human-machine improvement

Quickly resolve man-machine difficulties and promote workers' work happiness index

The preferred choice for various application scenarios

Application scenarios



Powerful technical parameters to meet your application requirements



Lumbar exoskeleton robot/product specification

ULS ROBOTICS BES-HV

Biggest help	30kg
Working time	5h ~ 8h
Battery	Lithium battery 36v
Degree of freedom	2 active degrees of freedom, 2 passive degrees of freedom
Equipment weight	5.8kg
Working environment	Indoor and outdoor

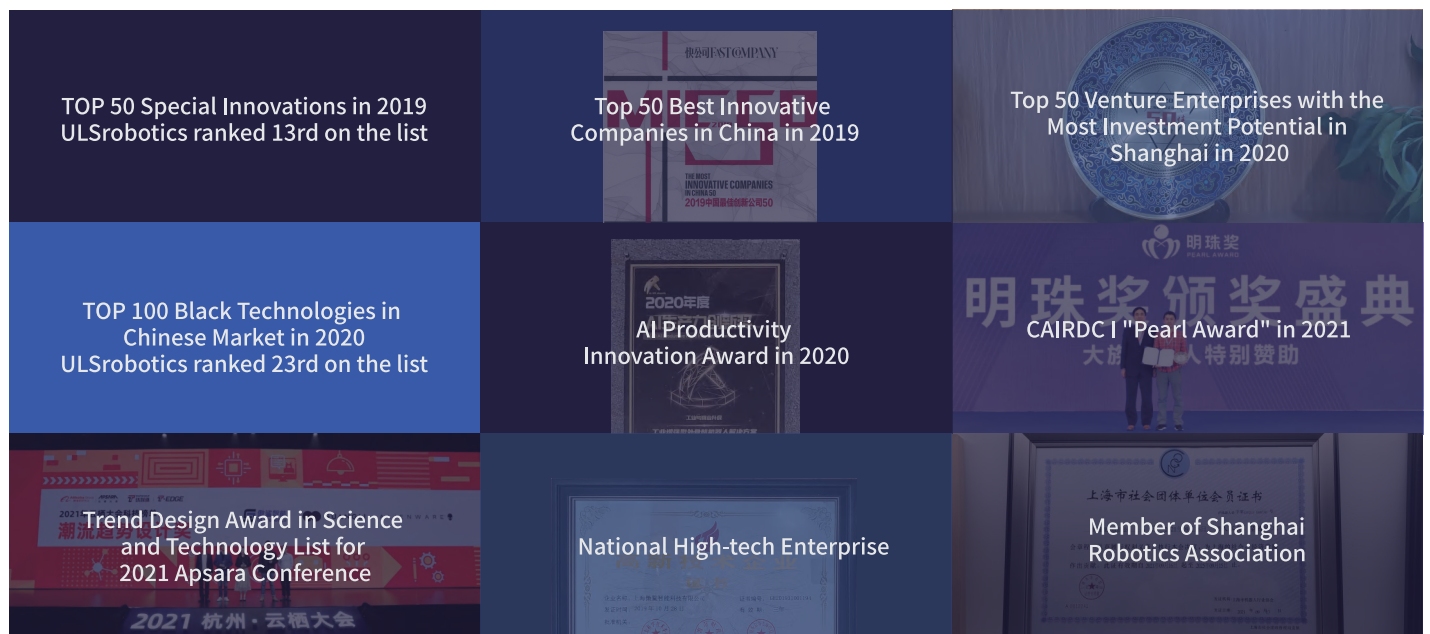


Company profile

ULSrobotics, founded in 2018 and headquartered in Science Park of Shanghai University of Finance and Economics, Shanghai, China, is a high-tech company based on robotics exoskeleton technology platform. ULSrobotics is dedicated in developing, manufacturing and supporting solutions for industrial, medical and educational fields with exoskeleton robots.

ULSrobotics' core R&D team is one of the earliest companies in the world to engage in exoskeleton robotics research and development, with rich experience in designing and developing robot control systems, motion-control algorithms, multi-sensor data fusion, human-computer interaction and machine vision, etc. ULSrobotics' exoskeleton product line covers upper limb, waist, lower limb and whole body, etc. The products have obtained ISO9001 quality certification and CE safety certification. Till now, ULSrobotics has a wealth of application scenarios, such as automobile manufacturing, aviation ground services, electric power, mining and educational research.

Enterprise honor





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EMPOWER HUMAN BEING INFINITE



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For more information, please visit www.ulsrobotics.com.

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