ULS ROBOTICS | EXOBUDDIES

FIT HV

Electric Waist Exoskeleton Robot

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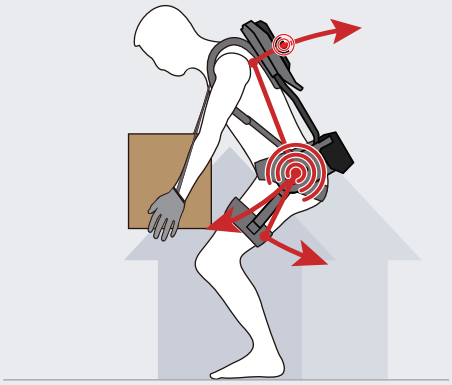
FIT-HV

Electric Waist Exoskeleton Robot

The FIT (Flex Interaction Tech) series of active electric exoskeleton robots integrates advanced intelligent digital actuators, reduction systems, and adaptive intelligent motion control systems, which are independently developed by ULS Robotics. Combined with software mechanical impedance and hardware adjustable structures, it provides personalized solutions for users with various needs. Among them, the FIT-HV active electric waist exoskeleton robot uses high-strength industrial materials and features a newly added hip joint adjustment mechanism. It includes three types of assistance modes and response speed adjustments, primarily used for heavy lifting, large, high-frequency bending, and short-distance transportation. It aims to reduce the workload of workers and it can reduce physical load by more than 60%, protect operators during the production process, and improve work efficiency.

Easy to Wear and Use

Simply wear the exoskeleton device like putting on a backpack, then turn on the controller, and during use, it will provide you with efficient lifting assistance and walking support.



- Servo Power Unit
- Mechanical Sensor Expansion Interface
- High-Endurance Battery
- Intelligent Motion Control
- Interactive Hand Controller
- IoT Motion Data Platform
- Dual Feedback Sensors
- Wireless Data Communication

APPLICATION INDUSTRIES

Airport Ground Services / Power and Mining / Physical Lifting / Automobile Manufacturing

Three working modes can be freely switched to use.

ASSIST	BALANCE	WALK
Provides three levels of lifting assistance with varying force, offering 30kg of support to help reduce fatigue caused by heavy physical labor, enhance physical capabilities, and improve efficiency.	Provides three levels of balancing support with varying force, offering continuous support for bending to help reduce fatigue caused by maintaining a fixed bending posture for long periods, enhance physical capabilities, and improve efficiency.	Simulates the natural walking gait of the human body, adapts to different movement patterns, and through the intelligent servo drive system, outputs natural walking power to improve leg movement function.

SPECIFICATIONS

Device Dimensions	872mm× (500mm-560mm) ×320mm (L * W * H)
Device Weight	5.0kg / (Pro: 5.6kg)
Power Source	Electrically Assisted Drive
Comprehensive Assistance	20kg / (Pro: 15~30kg Maximum support 40kg)
Ambient Temperature	-20°C~50°C
Working Time	2~3 h / (Pro: 6~8 h)
Battery	36V Lithium Battery
Degrees of Freedom	4
Materials	Nylon Engineering Plastic, Aviation Aluminum Alloy, Carbon Fiber

Side View

Back View