



KENQING®
EXOSKELETON EXPERT

INNOGREEN SOLUTION PTE LTD





Manufacturer Profile


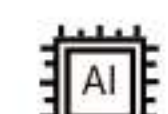





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Shenzhen Kenqing Technology Co., Ltd., was founded in 2015 with mission to make smart and lightweight exoskeletons to improve peoples' ability to walk, to carry or to lift. For 8 years, Kenqing has deeply handled technologies combine ergonomics, kinematics with power, machine perception, and AI, owns 50+ patent applications including 5 PCTs, and leading ultra-light walking and lifting assist exoskeleton Ant series are in mass production and widely used in outdoor sports, elderly care, industrial, and firefighting fields.

Ant-H1 Pro Walking Assist Robot

Go Outdoor Enjoy Mountain Scenery



-  Powerful And Adjustable
-  AI Intention Recognition
-  Battery Replaceable Quickly
-  Lightweight & Close-Fitting
-  Multiple Protections
-  APP Support Four Modes
-  Precision And Durability



Applications

- Outdoors:
Expanding Range, Physical Protection
- Elderly Care:
Improving Walking And Enhancing Health
- Physical Training:
Efficient Exercising & Precise Shaping



Parameters

Weight: 2.4kg*(Including battery)	Charging Time: 1.5H
Rated Torque: 12Nm	Materials: Aluminum Alloy+Carbon Fiber
Max Speed: 12Km/h	Applicable Height: 150-185cm
Endurance Per Charge: Ab.1-2H**,8K-12K steps	Easy To Use, Shoulder Strap Optional
Battery Replaceable In Seconds	Op. Temp.: -10~45°C, Water&Dust Proof
	Battery Passed UN38.3/MSDS Certification


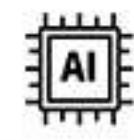

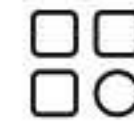





Applications

- Outdoors:
Expanding Range, Physical Protection
- Elderly Care:
Improving Walking And Enhancing Health
- Physical Training:
Efficient Exercising & Precise Shaping

Ant-C1 Pro Walking Assit Robot



-  Powerful And Adjustable
-  AI Intention Recognition
-  Close-Fitting & Flexible
-  APP Support Multiple Modes
-  Battery Replaceable
-  Precision And Durability
-  Multiple Protections



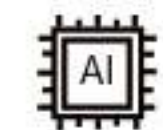






Parameters

- | | |
|--|--|
| Weight: 3.0kg*(Including Battery) | Charging Time: 1.5H |
| Rated Torque: 18Nm | Materials: Carbon Fiber + Aluminum Alloy |
| Max Speed: 11Km/h | Applicable Height: 150-185cm |
| Endurance Per Charge:
Ab.1.5-2.5H**,15K steps | Easy To Use, Shoulder Strap Optional |
| Battery Replaceable | Op. Temp.: -10~45°C, Water&Dust Proof |
| | Battery Passed UN38.3/MSDS Certification |

Ant-P1 Sports Enhanced Robot



-  Saving Physical Consumption
-  Resistance Training Efficient
-  AI Learning, Terrain Adaptation
-  Powerful & Lightweight
-  Flexible & High Speed
-  Battery Replaceable
-  Durable, Easy To Use



Parameters

Weight: 3.7kg*(W Bat. WO B.F)	Materials: Aluminum Alloy + Carbon Fiber
Rated Torque: 28N.m	Applicable Height: 150-185cm
Max Speed: 15Km/h	Easy To Put On/Off
Endurance For One Charge:	Op. Temp.: -25~45°C
Ab. 2-3H**, 20-25K Steps	Water & Dust Proof: IP56
Battery Replacement In Seconds	Battery Passed UN38.3/MSDS Cetification
Charging Time: 1.5H	

30%

Oxygen Consumption Decreased By

50%

Shoulder Pressure Reduced By

Applications

- Emergency Rescue
- Fire Fighting
- Weight-bearing Patrol



Ant-P1L Weight-Bearing Assist Robot



- ▶ Passive Support Makes Carrying Easier
- ▶ Active Power Makes Sports More Effortless
- ▶ Suspended Design Bring Incomparable Flexibility



Applications

- Emergency Rescue
- Fire Fighting
- Weight-bearing Patrol

Parameters

Dual Function: Sports Enhancement
And Weight Transfer
Weight: 7.2kg*(Including Battery)
Support Legs Are Removable
Rated Torque: 28Nm
Max Speed: 15Km/h

Reduce Exercise
Oxygen Consumption By

30%



Reduce Body Load
By More Than



50%

Rated Load: 35kg
Max Load: 70kg
Endurance Per Charge:
Normal Mode: 2-3H** (12Nm@5Km /h)
Power Saving Mode: 5-6H**
Battery Replaceable Quickly

Charging Time: 1.5H
Materials: Aluminum Alloy + Carbon Fiber
Applicable Height: 150-185cm
Op. Temp.: -25~45°C
Water & Dust Proof: IP56
Battery Passed UN38.3/MSDS Certification

Beetle-L1 Weigh-Bearing Assit Exoskeleton



- Flexible Leg Connection
- Load Transfer To Foot Innerside
- Width Adjustable Foot Covers
- Back Frame Connected Flexibly
- Biomimetic Structure Close Fitting



Reducing Back Carrying Burden By
50%



Applications

- Emergency Rescue
- Fire Fighting
- Rescue & Disaster Relief
- Weight-bearing Patrol

Parameters

- Weight: 5.7kg*
- Rated Load: 35kg
- Max Load: 70kg
- Knee Max Passive Torque: 5Nm

- Max Speed: 15Km/h
- Materials: Aluminum Alloy + Carbon Fiber
- Applicable Height: 150-185cm
- Op. Temp.: -40~45°C
- Max Anti Drop Height: 2m

Ant-W1 Waist Assist Robot

Flexible Lifting Holding & Lowering



Smart Intention Recognition



Powerful Dual Engines



Load Weight Adaptive



6+ Hours Endurance



Multiple Accessories



Reliable Quality

Applications

Logistics And Transportation: Airport, Port
Manufacturing: Factories, Mines
Fire Fighting, Rescue And Relief



Parameters

Weight:6.4kg*(Including Battery)

Rated Torques: 51Nm*2(Ab.35~45kg)

Motion Intention Recognition & Control

6-8H** Endurance For One Charge

Large Capacity Battery Can Be Quickly Replaced

Waist Adjustable, Applicable 1.6-1.9m

Load Can Be Lifted To The Abdomen

Grip Accessories Quick Disassembly


Charging Time: 1.5H

Op. Temp:-25~45°C, Water & Dust Proof

Ant-WA1 Handling Assist Robot

Lift High & Hold Stable



-  Powerful Four Engines
-  Load Lift To Shoulder
-  Smart Intention Recognition
-  Load Weight Adaptive
-  Reliable Quality



Parameters

Weight: 8.4kg*(Including Battery)

Rated Torques: 51Nm*4(Ab.35~45kg)

Motion Intention Recognition & Control

5-7H** Endurance For One Charge

Large Capacity Battery Can Be Quickly Replaced Op. Temp:-25~45°C, Water & Dust Proof

Waist Adjustable, Applicable 1.6-1.9m

Load Can Be Lifted To The Shoulder

Grip Accessories Quick Disassembly

Charging Time: 1.5H



Applications

Logistics And Transportation: Airport, Port

Manufacturing: Factories, Mines

Fire Fighting, Rescue And Relief



Ant-A1 Arm Assit Robot

Give You A Helping Hand



Active Assitance To Hands



Torso Control Arm Up & Down



Close Fitting And Flexible



6+ Hours Endurance



Certificated Quality



Applications

Logistics And Transportation: Airport, Port

Manufacturing: Factories, Mines

Fire Fighting, Rescue And Relief

Parameters

Weight: 5.2kg*(Including Battery)

Rated Torques:30*2Nm(Ab.15~25kg)

Assist Up To Hands

Torso Posture Control Up Or Down

Lift Load To Head

6~8H**(Ab. 3500 Times) For One Charge

Finger Sensors Optional

Charging Time:1.5h, Battery Replacable

Close Fitting, Using Freely

Waist Adjustable, Applicable Height:1.6-1.9m

Op. Temp:-25-45°C, Water And Dust Proof



Ant -A1W Handling Assist Robot

Give You A Helping Hand



-  Active Assistance Up To Hand
-  Passive Waist Assist
-  Close Fitting And Flexible
-  6+ Hours Endurance
-  Certificated Quality



Applications

Logistics And Transportation: Airport, Port
Manufacturing: Factories, Mines
Fire Fighting, Rescue And Relief

Parameters

Weight: 5.8kg*(Including Battery)
Arm Rated Torque: 30Nm*2(Ab. 20~30kg)
Waist Max Passive Torque: 12Nm*2(Ab. 12kg)
Assist Up To Hands
Torso Posture Controls Up Or Down

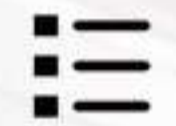
Supporting Lift Load To Head
One Charge Endurance: Ab. 6-8H**
Close Fitting And Easy To Use
Waist Adjustable, Appl. Height 1.6-1.9m
Op. Temp. : -25~45°C, Water & Dust Proof

Ant-C1-E Education Exoskeleton Robot

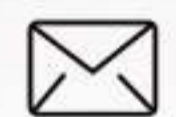
Reliable Hardware Platform Supports User Redevelopment



Intelligent Perception & Autonomous Decision



Supporting Position, Speed & Torque Control



Supporting Serial Port & Bluetooth



Collect Human Motion Information Including Posture, Stride Frequency, Stride Length



Data Analysis And Processing Of Acceleration Angle, And Angle Velocity



Applications

Support Research And Development From
Beginner To Advanced To Expert Level Developers
Applicable To Universities, Research Institutes,
And Development Enthusiasts




Parameters

Weight: 3.1kg*
Joint Angle Resolution: 0.002°
Acceleration Range: 16g
Angular Velocity Range: 2000°/s
Maximum Joint Angular Velocity: 700°/s
Max Torque: 15Nm





Max Control Frequency: 100Hz
Battery Capacity: 72Wh
Endurance Per Charge:
2.5H** for Walking
10H** For Data Acquisition
Output Power: 5V1.6A

Carrying and Walking Assist Product Series





Models	Pictures	Parameters	Features	Applications
Ant-P1		Rated Torque: 28Nm Weight: 3.7kg*(Including battery not including back frame) Endurance for one charge: 2-3H**/Ab. 20K steps	Save physical consumption when climbing mountain Reduce pressure on shoulder and spine Close fitting and lightweight Physical training	Emergency fire fighting Rescue and disaster relief Loaded operation Mountain patrol
Ant-P1L		Rated Torque: 28Nm Weight: 7.2kg*(Including battery and back frame) Endurance for one charge: 2-3H**/Ab. 20K steps Rated Load: 35kg Max Load: 70kg	Carrying load weight transferred to the ground Reduce oxygen consumption and save physical energy Lower limb support accessories can be separated Upper part can be used independently as Ant-P1	Emergency fire fighting Rescue and disaster relief Loaded operation Mountain patrol
Beetle L1		Max Knee Passive Torque: 5Nm Weight: 5.7kg* Rated Load: 35kg Max Load: 70kg	Carrying load weight transferred to the ground Flexible hip structure, high flexibility	Emergency fire fighting Rescue and disaster relief Loaded operation Mountain patrol


Carrying and Lifting Assist Product Series

Models	Pictures	Parameters	Features	Applications
Ant-W1		Waist Assist: Ab. 30-40kg Weight: 6.4kg* (Including battery) Endurance for one charge: 5-7H**/Ab. 2500 times	Lift load to abdominal position Automatically adapt to load weight Pick up, hover, and drop freely Walking or lifting switching freely Replaceable grip accessories	Logistics handling Factory operation Rescue and disaster relief Labor protection
Ant-WA1		Waist Assist: Ab. 30-40kg Weight: 8.4kg* (Including battery) Endurance for one charge: 4-5H**/Ab. 1600 times	Lift load to shoulder position Automatically adapt to load weight Pick up, hover, and drop freely Walking or lifting switching freely Replaceable grip accessories	Logistics handling Factory operation Rescue and disaster relief Labor protection
Ant-A1		Arm Assist: Ab. 18-25kg Weight: 5.2kg* (Including battery) Endurance for one charge: 6-8H**/Ab. 3500 times	Full arm assistance High flexibility Lightweight and close fitting Flexible control of posture Finger sensor is optional	Logistics handling Factory operation Rescue and disaster relief Labor protection
Ant-A1W		Arm Assist: Ab. 18-25kg Weight Passive Assist: Ab. 12kg Weight: 5.8kg* (Including battery) Endurance for one charge: 6-8H**/Ab. 3500 times	Full arm assistance Passive waist assistance High flexibility Lightweight and close fitting Flexible control of posture Finger sensor is optional	Logistics handling Factory operation Rescue and disaster relief Labor protection

Walking Assist Product Series

Models	Pictures	Parameters	Features	Applications
Ant-C1 Pro		Rated Torque: 18Nm Weight: 3.0kg*(Including battery) Endurance for one charge: 1.5-2.5H**/Ab. 15K steps	Powerful Close and slim fitting	Outdoor sports protection Improving elderly walking Fitness shaping
Ant-H1 Pro		Rated Torque: 12Nm Weight: 2.4kg*(Including battery) Endurance for one charge: 1.2-1.7H**/Ab. 8K-12K steps	Ultra lightweight Silent and agile Close and slim fitting	Save physical consumption and extended outdoor range

Education Product Series

Models	Pictures	Parameters	Features	Applications
Ant-C1-E		Rated Torque: 15Nm Weight: 3.1kg* (Include battery) Development platform: Raspberry Pi	Support for custom development Support for sensor expansion	University Geek players

***There are slight differences in weight due to different configurations and fabric materials**

****The endurance data is tested under laboratory conditions, and there may be significant differences in actual use due to different conditions**

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