

# HS001 PR准备资料(精修)

## MARKETING INFORMATION

### Brand

HyperShell

### Product Model

Ω Omega

### Website

<https://www.HyperShell.cc>

### Kickstarter Page

will be provided later

## PRODUCT INFORMATION OVERVIEW

HyperShell Omega is the next-gen powered exoskeleton designed for daily walking, traveling, hiking, and other trekking-related scenarios. With advanced technologies and cutting-edge ergonomic design, it is an excellent gear for everyone with an active lifestyle.

HyperShell Omega has significant advantages over other exoskeleton products, such as boost mode, AAF(Automatic Adaptive Force), multi-posture adaptation, and ultra-light.

With the HyperShell Omega, you can instantly feel the power of being boosted. Just like gaining extra power from your core body. This equals up to 30kg of weight loss at maximum output.

Equipped with HyperShell Omega, you can walk with fewer efforts, hike longer trails, climb higher mountains, run faster, and carry more along the way. Say goodbye to sore legs and knee pains after shopping, visiting museums, theme parks, or exhibitions. For professionals such as couriers, patrolmen, and rangers who suffer from long, tiring walking, HyperShell Omega can significantly reduce the hassle and increase efficiencies.

When power is needed, HyperShell Omega will always be there for you. Whether light or strong, horizontal or vertical, it helps pave your own path in a way you've never experienced before. Feel light and agile during traveling, hiking, trail running, backpacking, hunting, and commuting; sense the power from inside; and go further.

## FEATURES

### **Meet the Hyper Power you have been waiting for**

We design HyperShell to be an entirely new generation of exoskeleton. It packs state-of-the-art robotics, ergonomics, and AI into an extremely compact form that provides uncompromising power when needed. HyperShell saves you from tired walking, physical work, long trips, and mileage limits so that you can explore more options outside your comfort zone.

### **Better Performance, Double Your Power**

Feel light like never before. The built-in robotic joint servo system brings impressive performance to HyperShell. Powered by intelligent algorithms and sensors, HyperShell follows your muscle activity to deliver appropriate power, doubles your leg strength, and reduces the burden when moving.

### **Intelligent Copilot**

Using HyperShell is super easy. Take the first step and leave the rest to AI. HyperShell learns how you move in multiple scenarios and calculates the optimal output with zero delay. It seamlessly adjusts added speed from 0 to 10mph per your body's request. Forget about apps and Bluetooth pairing; just move your legs and enjoy.

### **Compact, Ultra lightweight**

With a weight of 1.8 kilograms and a size of 9 liters, HyperShell can be easily packed into almost any backpack. The full alloy frame and folding structure make HyperShell incredibly light and portable. In fact, it takes less space and weight than a regular sleeping bag.

### **All-day battery to keep you powered anywhere, anytime**

HyperShell integrates high-density batteries and energy recovery technology to provide an ultra-long battery life of 35km for all-day, high-intensity use. Its swappable design also gets you covered in multi-day hiking or long trips.

## FUNCTIONAL

### **The HyperShell Boosting Experience**

The boosting experience from HyperShell is unprecedentedly smooth yet astounding. It relies on predicting power output with AAF(Automatic Adaptive Force) pixel-level force control accuracy\* with 0.01s speedy response. In boost mode, HyperShell offers 32N·m torque lift, equivalent to 30kg of body weight offset\*\*.

\*Force control accuracy up to 0.001N·m

\*\*The reduction in energy consumption with the 32N·m maximum torque assist is the same as with the 30kg weight reduction

### **Real-time Posture Prediction**

HyperShell is smart enough to analyze 9 different postures at 200 times per second. With its AI dynamic adaptive engine, it recognizes and switches between suitable modes. Seamlessly transit between modes and terrains without stopping.

9 postures: Walking, Running, Stairs Up, Stairs Down, Uphill, Downhill, Riding, Gravel road\*, Standing

### **Fits You Better along Use**

Through AI learning algorithms, automatically analyze sensor data, adjust control parameters, adapt to your walking habits, and improve your experience and safety.

### **Up to Five Drive Modes. Everything Is Just Right**

HyperShell provides beginner mode, power mode, follow mode, hyper mode, and refill mode for different scenarios. Always stay covered and go freely as you wish.

### **Rapid Wearing under 30 seconds**

Due to the quick-release design and quick-release clips, the average wearing time of HyperShell is only 30 seconds.

### **800W Motor Full of Power**

Inside HyperShell is the 800W high-efficiency motor with a peak torque of 32N·m and a peak torque load of 64. Which is about 17 times over the power unit on Tesla Model 3.

\*Tesla Model 3 power unit torque load is about 3.78

### **35km Range No Charging Anxiety**

A single 200Wh high-capacity battery on HyperShell provides a 35km integrated range without charging anxiety along the trip.

### **BMS and Safety Protection**

12 BMS Protection Functions with 24-hour monitoring

Hardware protection: overcharge protection, over current protection, over-discharge protection, over-voltage protection, short-circuit protection, temperature protection

Software protection: battery balance adjustment, power calculation, automatic shutdown, timely warning, pre-charge protection, charge lockout

### **Aircraft Alloy Super Light and Strong**

Using aircraft grade AM60B magnesium alloy, one-piece die-casting molding, and load-bearing fuselage, HyperShell is 15% lighter with robust frame strength.

### **Ultra-light Weight and Compact**

The net weight of HyperShell is only 1500g, equivalent to 3 bottles of mineral water. It can be quickly folded and packed in your bag.

## **12 Layers of Safety Protection**

12 protection functions: down to stop, sudden change of gait protection, anti-idling protection, low battery protection, over-limit protection, load limit, power-on safety self-test, beginner mode, IP54 protection, over-power alert, low battery alert, fault alarm

## **Summary of Performance Parameters**

1. Full of Power - 800W Motor - Efficient Electromechanical Control
2. Ultra-light body - 1500g Weight - Light and Strong Alloy Skeleton
3. No More Charging Anxiety - 35km Range - Efficient Design for Power Utilization
4. Li-ion battery - 20Wh Battery - High-capacity Battery and Fast Charging Support
5. Power - 32N·m Torque - Torque Load Is Up to 64
6. 15km/h Speed - Keep Up with You Anytime
7. 12 Safety Guarantees - BMS Manage Every Safety

## **App Assistance**

Multi-parameter data insights and real-time control (speed adjustment, overall machine status, step record, mileage monitoring, assistance statistics, firmware upgrade).

## **SPECIFICATION**

- Dimensions: Length 510mm, Width 400mm, Height 50mm
- Net Weight: about 1500g without battery
- Maximum step speed: about 15 km/h
- Motor-rated power: 800W
- Integrated range: about 35km
- Operating temperature: -10°C to 40°C
- Storage temperature: -20°C to 50°C
- Weatherproof level: IP54

## **USER MANUAL**

### **1. Wearing**

- 1.1 Put the belt around the waist
- 1.2 Put the leg belts above the knee of each leg

### **2. Power On/Off**

- 2.1 In the power off state, press and hold the power button for 3 seconds to turn it on
- 2.2 In the power-on state, press and hold the power button for 3 seconds to turn it off

### **3. Switch Functions**

3.1 When powered on, short-press the power button to switch between modes

### **4. APP**

4.1 Show remaining miles

4.2 Show the remaining battery

4.3 Adjustment of output power

4.4 Mode switching

4.5 View current step count

4.6 View history record

### **5. Charging**

5.1 Charging the product using a type-c connector

5.2 Battery support hot-swappable replacement(one on each side)

## **THE TEAM**

HyperShell started in 2018 when the core members discovered extraordinary possibilities in simulation research on the interaction of exoskeletons and human bodies. Backed by the data and Y-Combinator China, HyperShell is on a mission to continuously promote human progress. Since its establishment in 2021, HyperShell has been innovating technologies and products in the field of the exoskeleton to reshape people's lifestyles and enable technology to empower life.

Team members have over 10 years of experience in robotics, consumer electronics, and EV. We have created over 20+ hardware products that helped over 100,000 users in 30 different countries worldwide.