



HZ Motion Capture Products



MotionStudio
Inertial Motion Capture Software

USER MANNUAL

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一、Hardware Configuration

1.1 Device Overview

1.1.1 Main Hardware Components

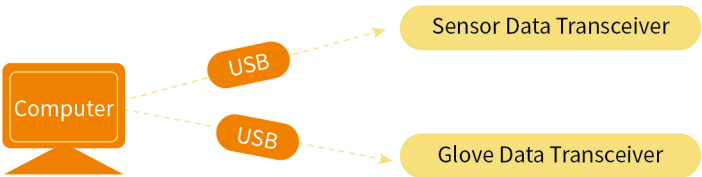
- HZ-Z1Pro Inertial Sensors ×17
- HZ-Z1Pro Backup Sensor ×1
- HZ-G1 Pro Motion Capture Gloves ×1 pair
- Data Transceiver with Omnidirectional Antenna ×1 set
- Charging Case (for sensor storage and calibration) ×1
- Power Adapter and USB Data Cable × 1 set
- Full-body Straps ×1 set
- Shockproof Carrying Case ×1
- User Manual×1

1.1.2 Recommended Computer Specifications

- OS: Windows 11
- Direct X9
- OpenGL 4.4
- CPU:3.0 GHz i5 processor
- RAM: 4GB of Memory
- Display Resolution: 1920×1080
- Refresh Rate: 60HZ
- Display Scaling: 100%

1.1.3 System Topology

The data transceiver is connected to the computer via a USB interface. A Type-C adapter cable is also provided for flexible connectivity and ease of use.



1.2 Device Details

1.2.1 HZ Wireless Sensors

The HZ wireless sensor is a high-precision sensing unit integrating a gyroscope, accelerometer, and magnetometer, enabling accurate motion capture and orientation tracking.

Indicator Light Description

LED Status	Sensor Status
Frequency indicator slow flashing	Frequency indicator slow flashing
Frequency indicator fast flashing	Frequency indicator fast flashing
Red light slow flashing continuously	Red light slow flashing continuously
Frequency indicator slow flashing	Frequency indicator slow flashing
Frequency indicator slow flashing	Frequency indicator slow flashing
Frequency indicators flashing alternately	Frequency band switching

Powering on the Sensor

Insert and remove the Type-C cable from the charging case. When the indicator lights on the sensors start flashing, it indicates that the sensors have been successfully activated.



1.2.2 Data Transceiver

The data transceiver is used to receive and transmit data signals from the sensors to the computer in real time.



1.2.3 HZ-G1 Pro Motion Capture Gloves



1.2.4 Charging Case

The charging case is used to charge and store the HZ wireless sensors. It also serves as a calibration platform for the sensors when required.



1.2.5 Shockproof Carrying Case

The shockproof carrying case is designed to protect the HZ sensors and accessories during transportation and storage.



1.3 Preparation of the Motion Capture Environment

HZ sensors are equipped with magnetometers, which are sensitive to strong magnetic fields. The sensors must be used in an environment with minimal magnetic interference to ensure accurate motion capture performance.



Permanent Magnet



Loudspeaker



Generator/
Electric Motor



Power Supply



Refrigerator



Low Power Consumption,
Long Battery Life