



PERCEPTION
NEURON  **STUDIO**
ANTI-MAG HYBRID

Noitom PN Studio

Noitom's flagship PN Studio inertial motion capture system delivers extensive range, low latency, high precision, and robust anti-magnetic performance for large-scale, high-dynamics capture in complex environments.

4PN Studio Motion Capture Gloves*



* The PN Studio Lite Edition does not include motion capture gloves

Advantages



Run, Jump, Roll
High-intensity motions captured in real-time



High Precision, Low Latency
Smooth and stable full-body data



Upgraded Self-Developed Algorithm
Anti-magnetic performance in complex environments



Enhanced Signal
Reliable capture across venues over 1,000m²



Energy Efficient
10+ hours of continuous operation at full load



Multi-Functional Platform
Visualized, user-friendly, and easy to manage

Applications

Embodied AI
Robot Data Collection / Teleoperation

Sports Science
Accurate Human Motion Analysis

Animation Production
Streamlined Creative Workflow

Virtual Humans
High-Precision Real-Time Capture & Flexible Driving

XR Interaction
Precision Tracking for Immersive Experiences

Film & VFX
Virtual Previsualization & Post-Production

Specifications

PN Studio Inertial Sensor

Sensor Dimensions	43mmx33mmx20mm	Accuracy	Roll/Pitch 0.7° , Yaw 2.0°	Frequency Band	2400MHz-2483MHz
Gyroscope Range	±2000dps	Operating Voltage	5V DC	Calculation Frame Rate	500Hz
Accelerometer Range	±30g (Limbs)/±8G	Battery Capacity	280mAh	Operating Time	≥10h
Resolution	0.02°	Output Frame Rate	24/25/30/50/60/90/96/100/120/240Hz		

PN Studio Data Transceiver

Dimensions	130mmx100mmx30mm	Interface	miniUSB (Type-AB)+RJ45	Transmit Power	20dBm
Power Supply	PoE / External Power	Operating Current	≤120mA	Antenna Gain	3dBi
Frequency Band	2400MHz-2483MHz	Antenna range ^①	15m		

Note:①Range is specified for a single unit and can be extended via cascading.

PN Studio Motion Capture Gloves

Weight	≤80g (per glove)	Power Supply	Built-in Battery	Calculation Frame Rate	100Hz
Accelerometer Range	±8G	Operating Time	10h	Material	Nylon-Spandex Elastic Fabric
Operating Voltage	3.3V	Frame Rate	100Hz	Available Sizes	M and L

Configuration - PN Studio Standard Edition

PN S Inertial Sensor	17 units	PN S Motion Capture Gloves	1 pair
PN S Spare Sensor	1 unit	Type-C Charging Cable	2 units
PN S Sensor Charging Case	1 unit	PN S Data Transceiver	1 unit
Charging Case Power Cable	1 set	PN S Full-Body Harness	1 set
Explosion-Proof Carry Case	1 unit	Antenna	1 unit
Software License	1 set		

PN Studio motion capture system has become the professional solution of choice across various industries-including Embodied AI, Sports Science, Animation, Virtual Production, and Virtual Human Live Streaming-thanks to its reliable performance and efficient workflow. Fully compatible with leading software platforms in these fields and equipped with a comprehensive plugin system, PN Studio offers true out-of-the-box usability, allowing users to get started quickly and capture and produce creative content in real time with high efficiency.

Built on an open SDK supporting C/C++/C#, PN Studio provides developers and technical teams with extensive customization capabilities, enabling tailored integration to meet diverse application needs.

