AiQ Synertial

Full Tech Specs Animation

G6 Suits

Animation

Dreams move fast. Express them with the next generation of mocap.

Doubling previous capture fidelity, this is technology to take animation off the drawing board and into the world of inspiration and imagination. Integrating IOS and Android apps as standard and including real-time plugins, the next generation of mocap suits are surprisingly affordable, effortlessly useable.

If you've got the vision, we've got the mocap to bring it to life.
Get in touch to find out why AAA game studios and animation houses choose Synertial.

1- Features

- 19 or 31 sensor Suits (18 full-body with single or 7-sensor CG6 gloves)
- Patent-pending 15-axis saturation-resistant sensor technology
- 4000 Degrees/sec. Gyroscopes & 32G Accelerometers
- 5 synchronized devices, each with 30 sensors, running at 200 fps guaranteed
- Internal storage (no limits on the number of files)
- Operates with Wi-Fi, Bluetooth, or USB
- Capture outdoors with Wi-Fi without a router
- PC, Android and iOS capturing apps; analysis OS on PC
- Unity, UE4, MoBu, Siemens PSH, HTC-Vive plugins
- Synchronize start/stops triggers with optical systems
- Automatic timestamps on files
- Socket for prop sensor on the wrist
- Customizable capture parameters:

User Skeleton size and posture (saved files, separate application)
Calibration method and referenced sensor
Scaling sensor data on separate axes
Assign scaled sensor data to any segment
Add segments for abnormal skeleton structures
Switch from Biomechanical to Animation nomenclature

- Separate glove and suit calibration process for more accuracy
- Easy to use, designed for solo operation with vibration warning system
- Raw data capture support with CSV file output
- Synchronized GPS data at 10 Hz
- Synchronized heartbeat data at 1 Hz
- Single device and capture file for suit, gloves, GPS
- Novel 3-piece body suit (IPX4)

2-System Specifications

Power

- Power supply: any 5V 2A power bank with USB-A or USB-C output sockets
- System operation voltage: 3.3V
- Component power consumption:
- Hub: 350 mA
- Sensor: 32 mA
- GPS: 70 mA max
- Vibrator: About 90mA when motor is on.
- 31-sensor system cables power absorption:

Data transmission modes

- Wireless: Wi-Fi & Bluetooth
- Wired: Ethernet through USB

Storage

- 1 GB
- Max recording time running 19 sensors at 200 fp: 4.7 hours
- Max recording time running 31 sensors at 200 fp: 2.8 hours

Sensor support

- Up to 31 sensors

Suit & Glove Cloth

- 3-piece stretch suit (upper, lower body, vest & glove) L, M, S size
- Single sensor palm gloves and/or fingered stretch gloves, L, M, S size

Software

- SynDash smartphone capture app on Android & iOS
- SynDash Light motion capture SW application on PC
- SynDash Pro sports analysis and user skeleton parameter settings SW application on PC
- AutoCal user size and posture definition SW application on PC
- SynShow motion capture and system diagnostics SW application on PC
- Unity, UE4, MoBu, Siemens PSH, HTC-Vive plugins

3- Motion Sensor Specification

Power

- Supply voltage 3.3~5V Operation voltage
- 3.3V Current consumption 32mA
- Sensor Update Rate: 416 Hz
- Static Rotation Accuracy 2.0 °
- Dynamic Rotation Accuracy 1.0 °
- Acceleration Accuracy 0.0005 g
- Gyroscope Accuracy 0.12 °/s
- Magnetometer Accuracy 1.4uT
- Accelerometer Range +/- 16 g
- Gyroscope Range +/- 4000 °/s

4-Sensor Network Hub Specification

Power

- Supply voltage 3.3~5V
- Operation voltage 3.3V
- Consumption with Cables/no sensors: 350 mA

Data transmission Modes

- Wi-Fi: 2.4G, support 802.11 b/g/n,
- Bluetooth: 5.0
- USB: 2.0

Storage

- Flash 1 GB

Support Firmware Upgrade

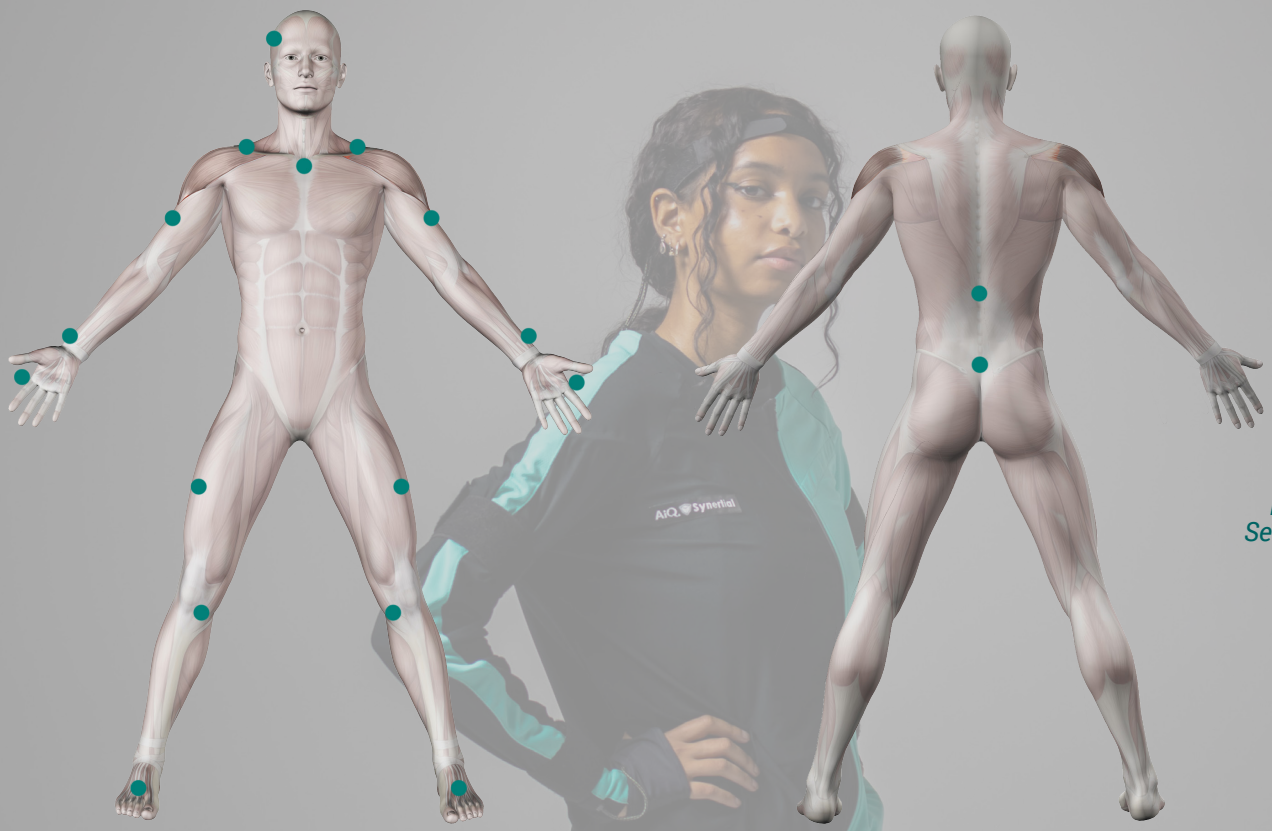
- MCU Yes
- BT Yes
- IMU Yes

Carrying Case

- L 464 mm
- W 366 mm
- D 176 mm

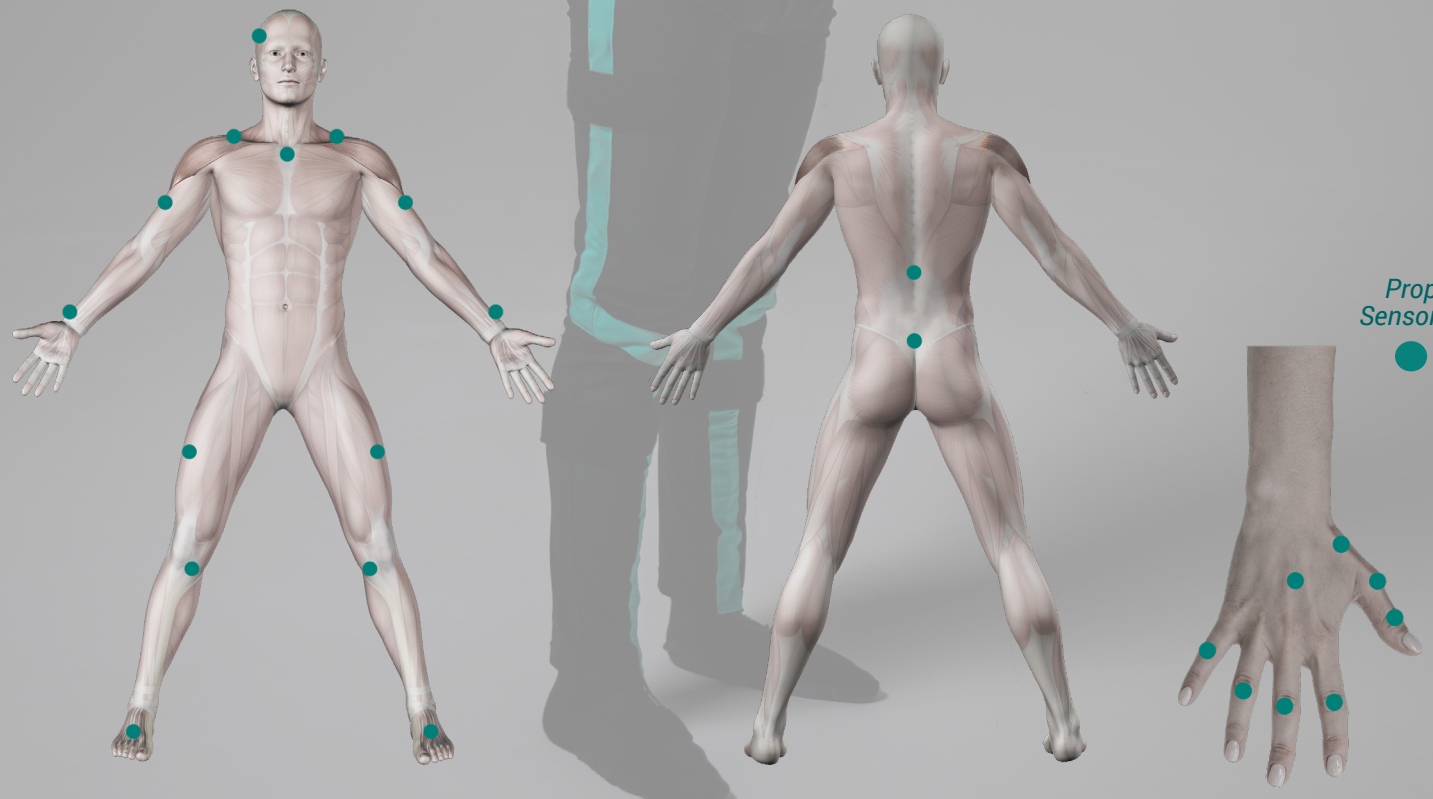
5-Sensor Placements on Suit

19 Sensors



Prop Sensor

31 Sensors



Prop Sensor