

**Full Tech Specs Sports**

**G6 Suits**



# Sports

**It's here - mocap to match the power, agility and precision of your elite athletes.**

Doubling industry-standard capture fidelity and with full on-field capabilities, this is technology for real bodies in real sports conditions. No labs, no marathon setups.

Seamless integration with IOS and Android apps and data capture capacity to map the future: this is the next generation of mocap.

# 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



## 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.
- 30-sensor system cables power absorption:

### Data transmission modes

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

### Storage

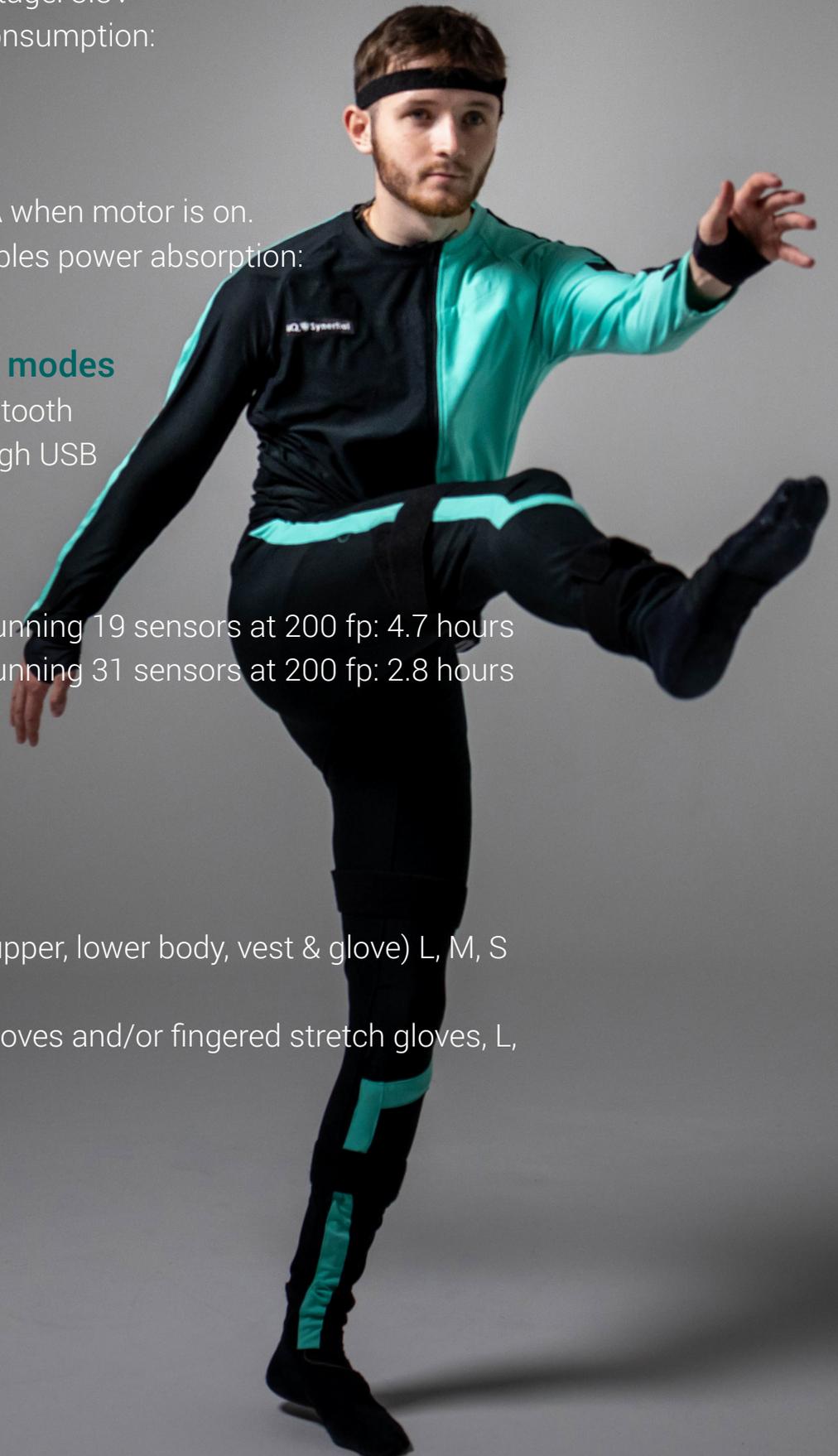
- 1 GB
- Max recording time running 19 sensors at 200 fp: 4.7 hours
- Max recording time running 31 sensors at 200 fp: 2.8 hours

### 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

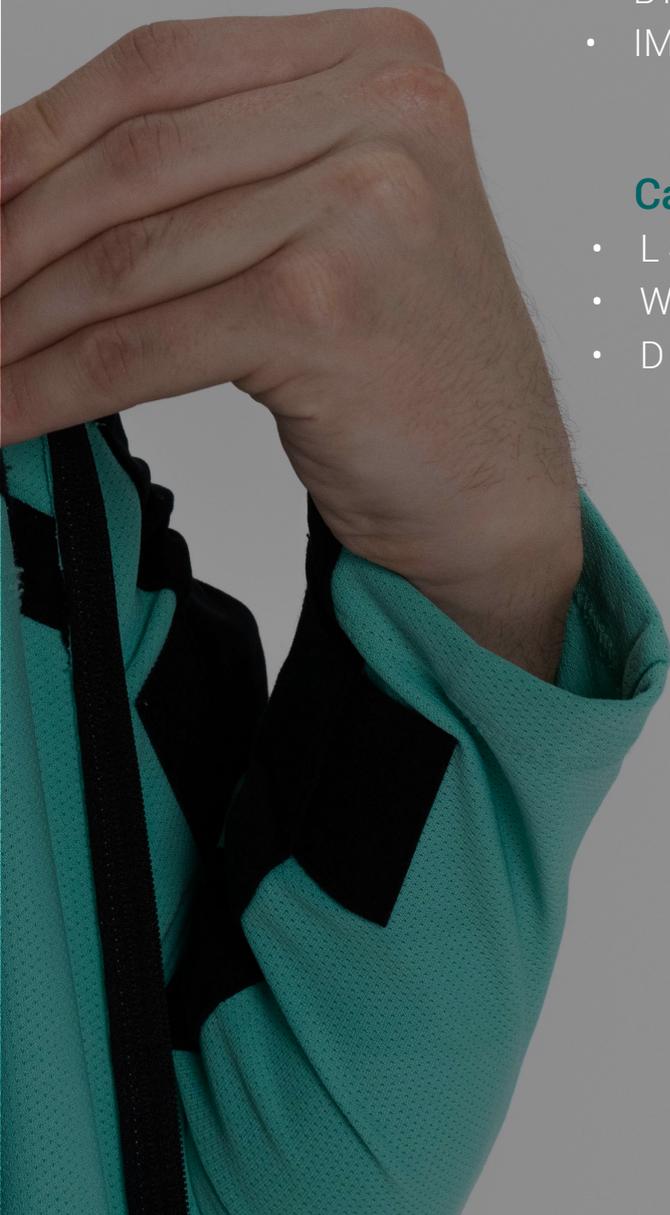
- Flash 1 GB

### Support Firmware Upgrade

- MCU Yes
- BT Yes
- IMU Yes

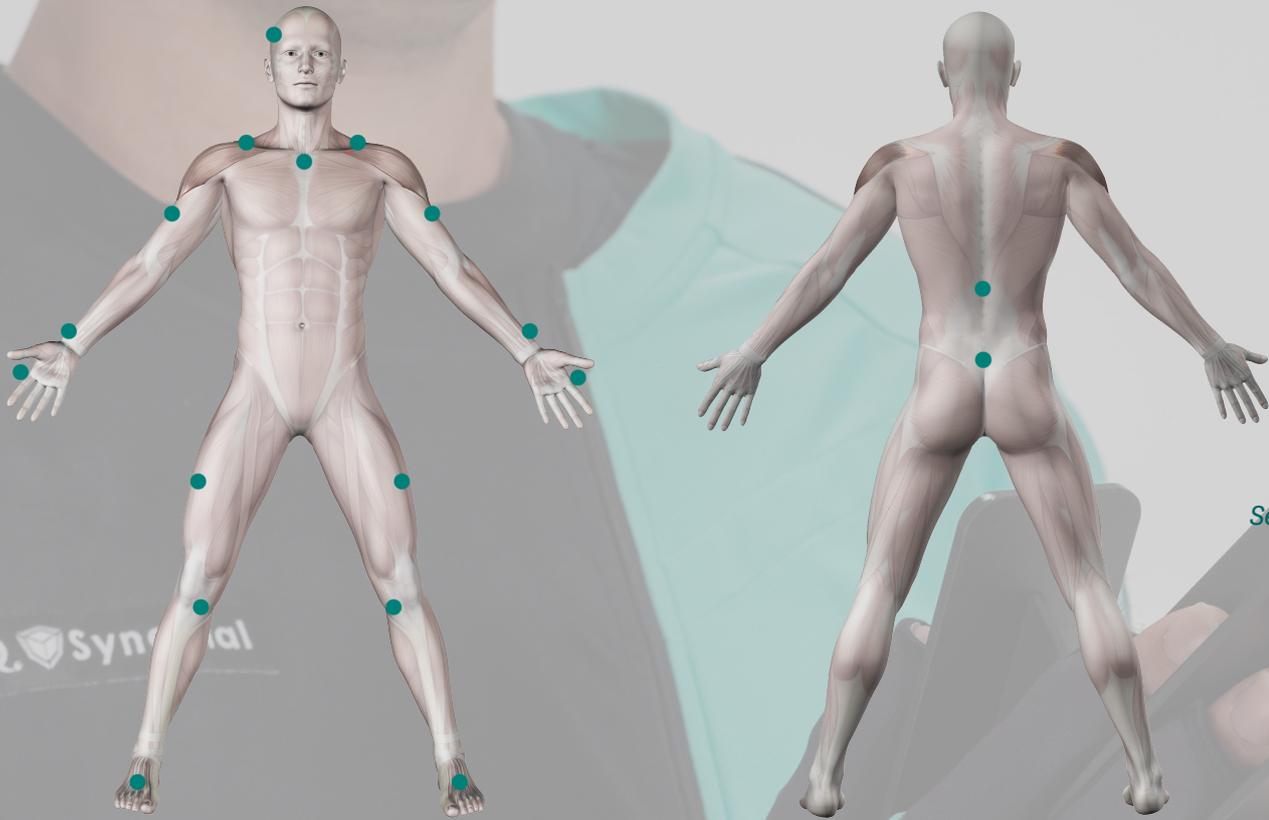
### Carrying Case

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



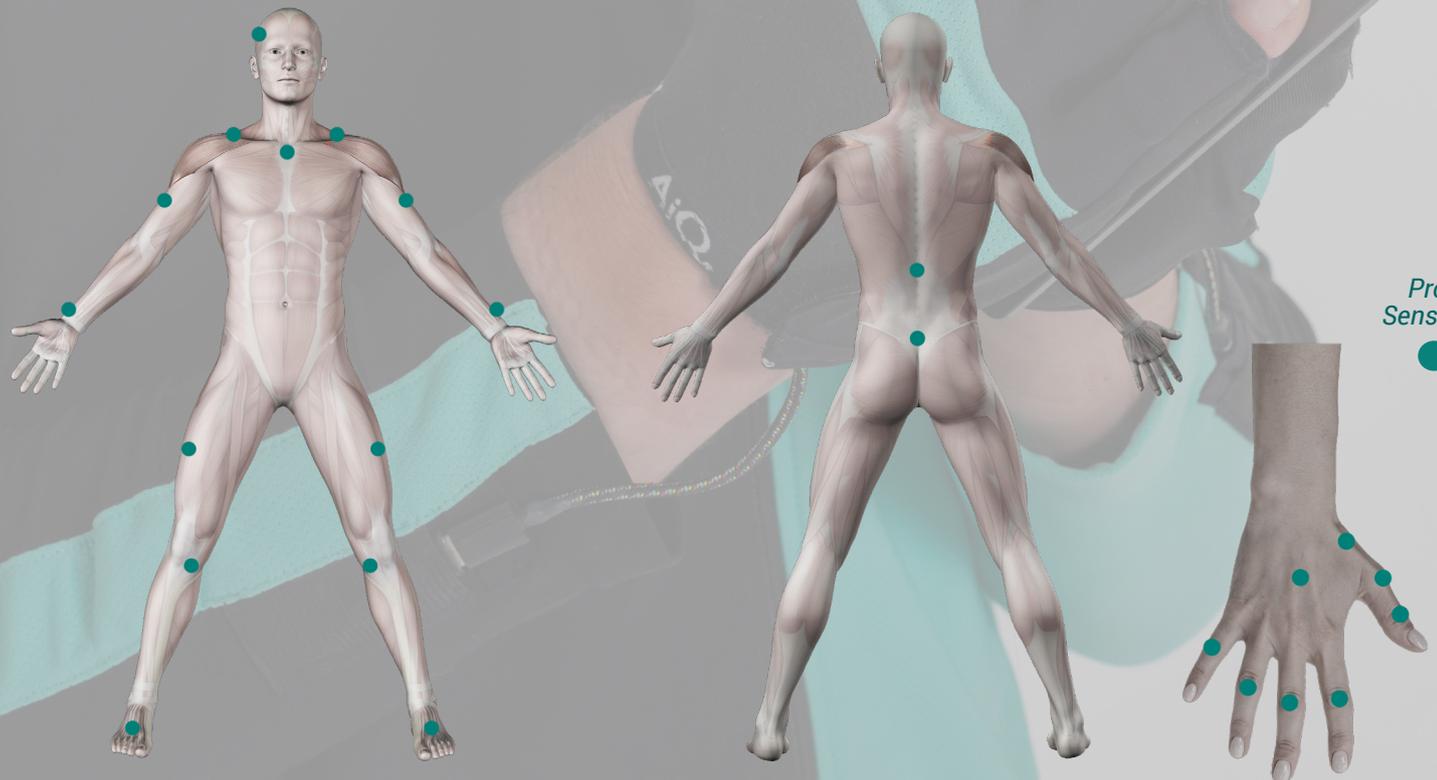
# 5- Sensor Placements on Suit

19 Sensors



Prop Sensor

31 Sensors



Prop Sensor