baiobit™

Functional evaluation and therapeutic exercise

Integrated solutions for multifactorial movement assessment and rehabilitation in the clinic

General description

Baiobit is a system compound of a wireless sensor consisting in an inertial platform (MEMS) consisting of a triaxial accelerometer, a triaxial gyroscope, a magnetic sensor, combined thanks to advanced Sensor Fusion algorithms. baiobit is an intuitive and easy-to-use tool capable of providing precise, objective and quantitative data. It is therefore indispensable for all professionals working in the fields of rehabilitation, sports medicine, ergonomics, clinical research and dealing with movement disorders resulting from trauma or pathologies of the nervous system or skeletal muscle, to evaluate walking, postural stability, Joint ROM, and for the prevention of possible injuries. Baiobit is made up of software which, through specific calculation algorithms, provides parameters for the objective functional analysis of different movements, such as walking, jumping, joint ROM and allows you to carry out and monitor exercises in biofeedback: of JPS, range of motion and balance.

Components and accessories

- Wireless inertial sensor
- 3 Belts with hooking system for sensor positioning
  - Arm positioning belt
  - Belt for positioning on the head
  - Belt for positioning on the trunk
- Data processing software
- Sensor charging cable

Technical features

Dimensions	70 mm L x 40 mm W x 18 mm H
Weight	37g (battery included)
Inertial platforms	Tecnology Sensor Fusion
Inertial platform components	Triaxial accelerometer, 16-bit / axis with multiple sensitivity (±2, ±4, ±8, ±16 g)
	Triaxial gyroscope, 16 bit / axis with multiple sensitivity (± 250, ± 500, ± 1000, ± 2000 ° / s)
	Triaxial Magnetometer, 13bit: (±1200 uT)
Battery	Rechargeable via USB
	8 hours of autonomy
Connectivity	Bluetooth® 2.1 EDR Class 1
Frequency	Accelerometer: from 4 up to 1000 Hz
	Gyroscope: from 4 up to 8000Hz
	Magnetometer: up to 100Hz
	Sensor Fusion: 200 Hz
Functionality	Real-time / batch
Memory	Internal 256MB Flash (in Sensor Fusion mode up to 8h of continuous data recording)
Status LED	ON-OFF / Search / Connection / Acquisition / Upload

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