

# FreeSense®

Motion Measured Wireless



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# FreeSense®

Motion Measured Wireless

## DESCRIPTION

**FreeSense** is a totally wireless inertial measurement instrument. Thanks to its characteristics, it is the ideal solution for monitoring movement in every context: biomechanics, rehabilitation, sports, ergonomics, automotive, aviation, etc.

**FreeSense** is totally wireless, light and compact; it measures 3D linear accelerations, 3D angular velocities and GPS coordinates (optional module). The bluetooth transmission provides real-time data curves directly on the computer monitor. Data can be also collected without any PC; FreeSense contains a long-life rechargeable battery and a memory card that can store huge quantity of data.

**FreeSense** software is very intuitive and permits data collection and organization, hardware unit configuration, as well as data export in table format for further analysis.

## CHARACTERISTICS

### Accuracy

3D linear accelerations  
3D angular velocity  
longitude & latitude

### Simplicity

start / stop button  
software with user-friendly interface  
USB data transfer

### Flexibility

change data acquisition sampling frequency  
select sensor measurement full-scale range  
configure data acquisition duration

### Fields of use

human/animal biomechanics and rehabilitation  
sports, ergonomics and vibration analysis  
automotive and aviation

## TECHNICAL SPECIFICATIONS

### Size & weight

Height	8.79 cm (3.46 inches)
Width	5.14 cm (2.02 inches)
Depth	2.47 cm (0.97 inches)
Weight	93 g (3.3 ounces)



### Internal hardware

OLED b/w 128x128 points display  
3D accelerometer (full-scale range  $\pm 2g$ ,  $\pm 6g$ )  
3D gyroscope (full-scale range  $\pm 500^\circ/s$ )  
GPS receiver (optional module)  
Bluetooth wireless transmission module  
microSD memory card

### Power & battery

Battery	Rechargeable Li-ion 1900 mAh
Power charger	Input 100-240 V Output 5.3 V

### External buttons & controls

Menu  
Navigation buttons  
Usage modality  
Personalized shortcut  
Led state indicator



### In the box

FreeSense hardware unit  
FreeSense software  
Bluetooth adapter  
Sensorize USB memory stick  
fixation clip  
Power charger  
USB connection cable  
Documentation



Roma, Italia  
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