## NORAXON®



### PORTABLE Motion Capture

Now available with the Calibration Adjustment Tool



# 3D Kinematic Data Collection

- 3D orientation & position
- High sampling rate (200 Hz)
- Single-joint measurements
- Ability to include object sensors
- Freely assignable sensors
- "Lossless" on-board data recovery

EMG

**3D MOTION** 

SOFTWARE

PRESSURE/FORCE

VIDEO ANALYSIS



# The MyoMotion System

Wireless sensors allow for 3D motion capture in challenging environments.

The MyoMotion System uses advanced, medical grade inertial measurement units (IMUs) that measure 3D motion with an accuracy level within 1 to 2 degrees of legacy camera based systems. IMUs allow for a level of flexibility not possible in a lab-based, wireless system and are ideal for recording data in natural environments.

### With the MyoMotion Software you can measure:

- · Contact detection for walking gait
- Orientation angles
- Anatomical (joint) angles
- Linear acceleration

Subject motion is displayed as a skeleton image or human avatar.

#### You always have access to:

- Quaternions
- Raw data from accelerometer, gyroscopes, magnetometers

Synchronize motion data with EMG, pressure, force, video, and third party devices.



### NEW! Additional Tool Set For Calibration Adjustment

### The Calibration Adjustment Tool

Allows for modification and correction of the software model calibration procedure.

#### Ideal for the following applications:

- 1. When a subject is unable to position their body in one of the required calibration positions.
- 2. When a high accuracy calibration is required for research settings.



Standard Calibration



**Adjusted Calibration** 

By digitizing bony landmarks on the subject's body, the Calibration Adjustment Tool applies the exact location and orientation of the body segment to the calibration. This offsets the original calibration to the exact positioning of the subject for more accurate and representative data.

#### What's Included

- Source & Stylus
- Two clinical MyoMotion sensors
- Tripod





### **Technical Specifications**





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	RESEARCH PRO MyoMotion System
Maximum # of sensors	18
Maximum sampling rate	200 Hz
Data logger	Optional
Accuracy: anatomical angle - static / dynamic	1° / 2°
Accuracy: orientation angle - pitch / heading	0.25° / 1.25°
3 Axis Analog Sensing Element Set:	
- Accelerometer	+/- 1.7g at 800 Hz
- Gyroscope	+/- 515° per second at 800 Hz
- Magnetometer	
3 Axis Digital Sensing Element Set:	
- Accelerometer	+/- 16g at 400 Hz
- Gyroscope	+/- 2000° per second at 400 Hz
- Magnetometer	+/- 1.9 Gauss at 70 Hz
Inter-sensor Latency	< 10 µsec
Transmission Range	30 m
Battery Life	8 hrs
Data Loss	Lossless Recovery



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