The MotionMonitor™ base unit shown here with an Ascension trakSTAR electromagnetic system and Noraxon Telemyo EMG system.

Electromyography

- Filter signals with Low Pass, High Pass, and Notch filter settings.
- Use proprietary algorithms to optimize filter settings in the presence of electromagnetic noise.
- Report signals in the frequency domain for analyses involving frequency shifts.
- Rectify and apply a moving RMS to the EMG signal.
- Report data in terms of MVC and set activation thresholds in analysis.
- Integrate and synchronize EMG data with forceplate, kinematic, and video data within The MotionMonitor™.
- Collect surface or indwelling analog EMG from Delsys, Noraxon, Motion Lab Systems, or Biopac systems.
- Connect directly via USB with Noraxon and Delsys EMG units, including Noraxon’s wireless DTS and Delsys’ wireless Trigno units.

Above is an image showing the EMG data for a drop landing collection. The graphs display Raw data, RMS, and the Power Spectrum Density (Fast Fourier Transform) of the EMG signal for the medial head of the gastrocnemius. The PSD displays the median and average weighted frequency for the EMG signal, often used in fatigue studies. Finally the RMS is reported as a percentage of the subject’s maximum voluntary contractions (MVC).

The MotionMonitor™ is a trademark of Innovative Sports Training, Inc.

Innovative Sports Training, Inc. • 3711 North Ravenswood Avenue • Chicago, Illinois 60613 USA
www.TheMotionMonitor.com    Telephone: 773.244.6470    email: support@TheMotionMonitor.com