Moveo Explorer

BY APDM

Full-Body Kinematic System

BREAK OUTSIDE OF THE LAB

TO EXPLORE FULL BODY KINEMATICS

Through automated kinematic analysis, Moveo Explorer acts as a portable motion capture lab providing joint angle data, in addition to gait and balance analysis.

JOINT ANGLES

NECK

- Flexion - Extension
- Lateral Bending
- Rotation

BACK

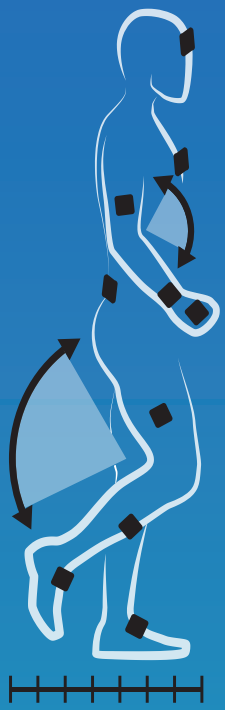
- Flexion - Extension
- Lateral Bending
- Rotation

HIP

- Flexion - Extension
- Abduction - Adduction
- Rotation

ANKLE

- Dorsiflexion - Plantarflexion
- Inversion - Eversion
- Abduction - Adduction



SHOULDER

- Flexion - Extension
- Abduction - Adduction
- Rotation

ELBOW

- Flexion - Extension
- Supination - Pronation

WRIST

- Flexion - Extension
- Ulnar - Radial Deviation

KNEE

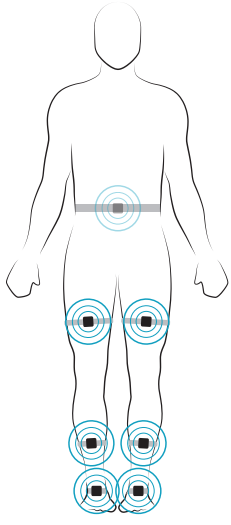
- Flexion - Extension
- Varus - Valgus
- Rotation

GAIT & BALANCE OUTCOME MEASURES

- Joint Angle Max/Min/Range
- Lower Limb
- Upper Limb
- Trunk Range of Motion
- Lumbar Range of Motion
- Postural Sway
- Turning
- Gait Initiation

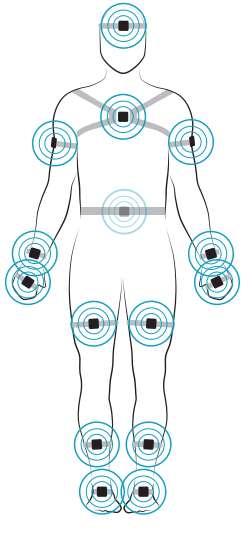
WALK • TUG • TURN • SWAY • CTSIB • mBESS

SUGGESTED PACKAGES



LOWER LIMB KINEMATICS

• 2 Foot • 2 Lower Leg
• 2 Upper Leg • 1 Lumbar



FULL-BODY KINEMATICS

• 2 Foot • 2 Lower Leg • 2 Upper Leg • 1 Lumbar
• 1 Sternum • 1 Head • 2 Upper Arm
• 2 Wrist • 2 Hand

MEASURE OBJECTIVELY

Easily interpret results with automated kinematic reports and access to raw data

SAVE TIME

Work efficiently with a portable system that sets up and processes data in minutes

NEVER LOSE DATA

Record up to 720 hours of data per Opal with on-board storage

MULTIPLE ENVIRONMENTS

Eliminate space constraints and record movement in or outside of a lab setting

PUBLICATIONS

200+

Using Wearable Inertial Sensors to Track Body Kinematics During Gait

El-Gohary, et al. Gait & Posture. 2017.

Validation of Gait Cycle Timing Using Wearable Sensors in Individuals with Cerebral Palsy

Pimentel, et al. Archives of Physical Medicine and Rehabilitation. 2017.

The Feasibility of Shoulder Motion Tracking During Activities of Daily Living Using Inertial Measurement Units

Kirking , et al. Gait & Posture. 2016.

Human Joint Angle Estimation with Inertial Sensors and Validation with A Robot Arm

El-Gohary, et al. IEEE Trans Biomed Eng. 2015.

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