

MOTION CAPTURING

LaiTronic

FLEXIBLE AND PRECISE SYSTEMS
FOR MOTION ANALYSIS



INNOVATIVE HARDWARE AND SOFTWARE FOR EASY, PRECISE DATA ACQUISITION AND EVALUATION

In combination with different software solutions and accessories, the system configurations offer the possibility to perform, for example, whole body gait analyses and spine analyses.

The measurement and analysis of complex movement patterns also provides valuable information that can be used as a basis for targeted performance optimization and the improvement of training methods for various sports.

NEW: OPTICAL TRACKING SYSTEM MCU PRO

Data acquisition has now become more efficient with the new tracking system. Due to its high mechanical stability, an extended measurement volume and excellent accuracy, the tracking unit offers optimum performance for demanding applications. The MCU PRO can be perfectly upgraded with various accessory kits, thus allowing for example the integration of force plates (ideal e.g. LaiTronic SFP), or EMG devices.

Benefit from our modular all-in-one solutions with extensive configuration options for a wide application range in motion capturing!

FLEXIBLE, MODULAR SYSTEMS FOR A MULTITUDE OF MOTION ANALYSIS APPLICATIONS

The LAITRONIC MOTION CAPTURING systems are specially designed for checking and measuring 3D motion sequences in real time.

Despite their great ease of use and highly flexible design, the systems provide comprehensive functionality and deliver detailed, highly accurate measurement results, thus supporting a wide variety of application areas.

A compact, portable tracking unit captures the infrared markers attached to the body of the person to be examined. Even in complex analyses and measurement reports, the relevant measurement data can be quickly and easily summarized by selecting the appropriate software settings.





LaiTronic MOTION CAPTURING

FLEXIBLE UND PRÄZISE SYSTEME
ZUR BEWEGUNGSANALYSE

TECHNICAL DATA

	MCU PRO	MCU MOVE
Real-time capability	yes	yes
Spatial 3D measurement	yes	yes
Self-calibrating	yes	yes
Sample rate	4,000 Hz	2,000 Hz
Max. Image rate (4 markers)	1,000 Hz	500 Hz
Max. number of markers	63	48
Spatial measurement depth	10 m	8 m
Max. accuracy [rms]	1.5 mm	2 mm
Local resolution	15 µm	30 µm
Data Transfer	radio transmission IR	radio transmission optical fiber
Angle of reflected beam (markers)	> +/- 90°	> +/- 90°
Radio frequency	433 MHz	433 MHz
Combination of several cameras	yes	yes
Additional analog inputs	max. 32	max. 24
Additional digital I/O	yes	no
Dimensions	1020 x 125 x 125 mm	960 x 210 x 70 mm
Weight	8.5 kg	1.9 kg
Computer interface	Ethernet	USB, Ethernet
Analysis software	AS X-PLORE / GaitLab / SpineLab	AS X-PLORE / GaitLab / SpineLab
Operating systems	Windows Vista, Windows 7	Windows Vista, Windows 7

Subject to change without any further notice.

EVALUATION MODULES / APPLICATION AREAS

- GAITLAB - Whole Body Gait Analysis
- BIOMECHANICS - Motion Pattern Analysis
- SPORTS - Motion Analysis for Measurable Performance Optimization
- SPINELAB - Spinal Mobility Analysis
- RESEARCH & INDUSTRY - Kinematics and Kinetics of moving bodies

