
The zebris FDM-T System for stance and gait analysis



FDM-T SYSTEM

zebris

The new zebris FDM-T System - a stance and gait analysis center



Using the zebris® FDM-T Analysis Center, gait and roll-off analyses can be carried out easily and quickly. The basic system can be extended in a variety of ways with video, motion analysis and EMG.



The treadmill can be used with shoes on or bare-foot. As a result, the influence of the shoes on the roll-off behavior can be examined.



The use of modern inertial sensors enables a kinematic motion analysis, whereby a skeleton model is animated.

The basic system consists of a treadmill ergometer with an integrated, calibrated measuring sensor matrix. This consists of numerous high-quality capacitive force sensors. Using a system specially developed by zebris® the movement of the treadmill is compensated so that completely stable gait and rolloff patterns can be analyzed. Different types of treadmill ergometer are available for the basic system.

For the stance analysis, the force distribution and the posture are recorded and evaluated.



The new zebris FDM-T System with numerous possibilities for extension

The basic FDM-T measuring system consists of the instrumented treadmill ergometer with instruments and the PC linked via a USB interface. For a treading area of 150 x 50 cm the sensor unit has more than 5,000 pressure / force sensors.



The infrared synchronization adapter is connected to the junction box of the treadmill ergometer.

All the FDM-T systems are equipped in their standard form with a video synchronization output for time synchronization with the video camera.

The time synchronization using the optionally available cordless radio adapter DAB is effected via an infrared interface. The radio adapter is connected to the PC via a Bluetooth interface and can be fitted with up to eight EMG amplifiers or inertial sensors for motion analysis and animation of a skeleton model. Depending on the design, the treadmill ergometer can have an additional input and output that enables any other external devices to be synchronized.



Besides the infrared interface, the cordless radio adapter has eight analog inputs, four digital inputs and an output for directly connecting a special USB adapter cable.

Besides a high-quality video camera with stand, the optional video module contains a wide-angle lens, all the connection and synchronization cables necessary for operation, and the software extension.