



3D Force Treadmill

The new and innovative 3D force-sensing treadmill from Treadmetrix is capable of measuring all 3 force components (Fx, Fy, Fz) during treadmill running and walking at a wide range of speeds and grades. The treadmill utilizes a modular design, incorporating four AMTI MC3 strain-gauge sensing elements and amplifiers. The entire aluminum honeycomb composite treadmill system is supported by the sensing elements—producing outstanding signal to noise ratios. The treadmill's advanced servo motor system ensures that the treadmill speed remains constant under high loads and allows the development of custom speed and grade protocols.

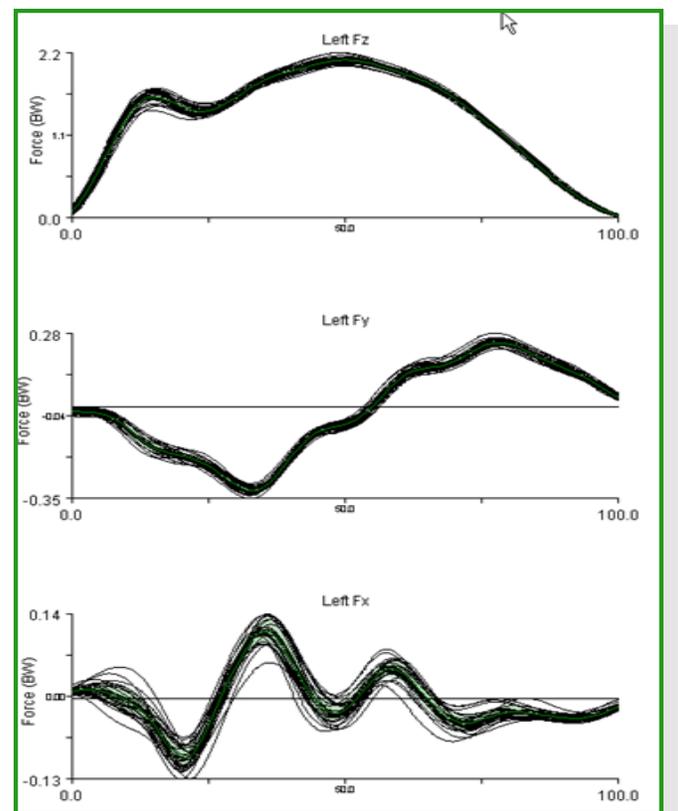
The 3D Force Treadmill allows continuous measurements of reaction forces and center of pressure (COP) during multiple footfalls. The treadmill is well-suited for biomechanics research, clinical and sports medicine applications.



Speed: 0 -28.5 mph Elevation: 0 to \pm 35% grade

[Features/Software Integration]

- Touch-screen treadmill control
 - Embedded user manuals
 - User-specified alarms for speed elevation
 - Manual emergency stop
- Real-time integration with Qualisys QTM Software
 - Real-time force vector display
 - Seamless integration with QTM capture interface
 - Algorithms for calculation of key gait events in both walking and running
- Integration with Visual3D™ software by C-Motion
 - Custom scripts available upon request to optimize workflow for research or clinical applications
 - Special pipeline processing commands allow calculation of sophisticated measures in real-time.
- Package includes:
 - 3D Force Treadmill
 - Touch Screen control with stainless steel cabinet
 - Customized Visual 3D pipeline scripts



[20 Seconds Running Data]





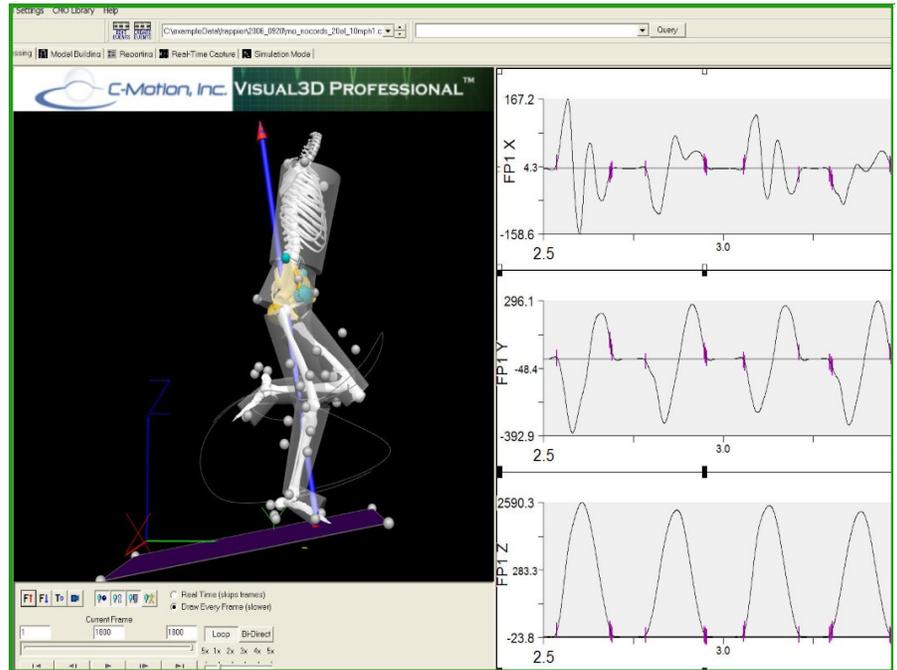
3D Force Treadmill

[Specifications]

- Fz capacity: 2000/4000 lb*
- Fx, Fy capacity 1000/2000 lb*
- *capacities may be specified by user
- COPx/COPy accuracy
 - 2-4 mm static @ >80 N
 - 4-6 mm dynamic
- Noise level from treadmill (+/- 10 N)
- Natural resonant frequency
 - (Fz 154 Hz, Fy 85 Hz, Fx 125 Hz)
- Output type: Dual outputs: 12-channel analog/RS232
- Speed range: 0 -28.5 mph
- Forward/reverse operation
- Elevation capability: 0 to \pm 35% grade
- Treadmill surface dimension: 66" x 20"
- Aluminum honeycomb treadmill frame
- Cold rolled steel sub-frame with leveling feet and wheel casters for transport
- Power requirements:
 - 220 V, 3 phase, 30 amp
- Weight 1700 lbs.

The software provided by Treadmetrix uses the digital outputs to calculate real-time forces and basic gait analysis parameters. This software can be used for easy integration with color video or 2D camera systems.

The analog outputs can easily be synchronized with most major motion capture systems. C-Motion's Visual 3D software allows full integration of the treadmill with their advanced biomechanics suite and real-time biofeedback modules.



Integration with Visual 3D Professional



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