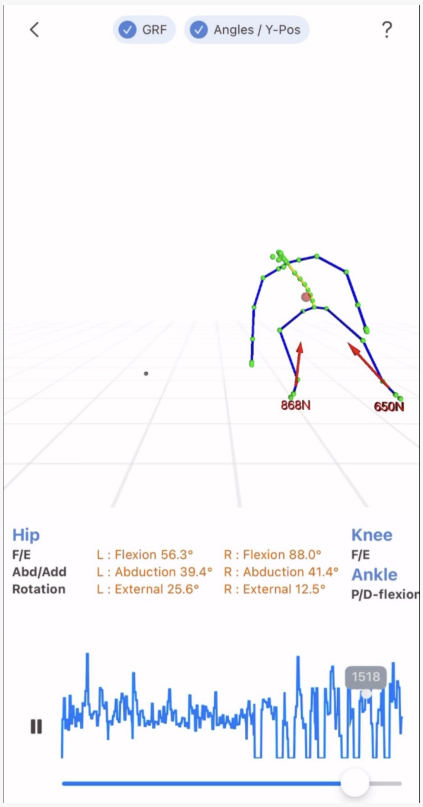
MOVE! App Enables Ground Reaction Force Estimation and Full 3D Biomechanical Analysis Using Only an iPhone

Developed by TNQ Tech, Co., the world's first mobile app to provide lab-grade 3D motion tracking and ground reaction force estimation from video alone.



From sprints to jumps, capture GRF, joint angles, and COM for any movement, anywhere.

NEWARK, DE, UNITED STATES, August 15, 2025 /EINPresswire.com/ -- TNQ Tech Launches "MOVE!" — iPhone-Based 3D Motion Analysis App Bringing Biomechanics Out of the Lab

TNQ Tech, Co., a sports technology company based in the United States, today announced the release of MOVE!, an iPhone application capable of performing full 3D motion analysis, joint angle measurement, center of mass tracking, jump height calculation, and ground reaction force (GRF) estimation from standard video footage. The launch marks the first time these advanced biomechanical metrics have been accessible without force plates, wearable sensors, or dedicated motion capture systems.

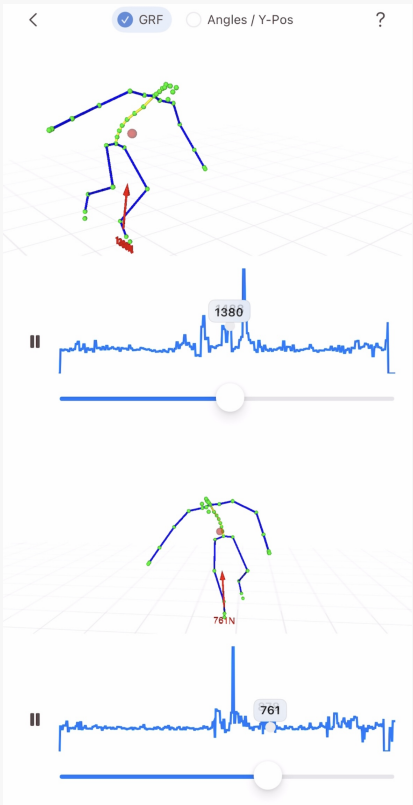
For decades, analyzing complex athletic movements such as jumps, sprints, and changes of direction has required laboratory-based equipment costing tens of thousands of dollars. These systems, while accurate, are limited by their size, cost, and the controlled environments they demand. MOVE! applies advances in computer vision and AI-based kinematic modeling to remove these barriers, enabling coaches, athletes, and researchers to capture biomechanical data in real training and competition environments.

Breaking the Lab Barrier

By reconstructing an athlete's motion in 3D from a single iPhone video, MOVE! can estimate ground reaction forces and compute joint angles, center of mass movement, and jump heights across a range of movement types. This approach allows for professional-grade biomechanical insights in seconds, without altering the natural training context.

Potential Applications
Early trials have demonstrated applications across multiple domains, including:
•Sports performance – monitoring explosive power, technique, and movement efficiency during practice or competition.
•Rehabilitation – tracking progress in joint mobility, stability, and force output without requiring clinic visits.
•Research – collecting biomechanical data outside of traditional labs, expanding sample sizes and ecological validity.

Industry Impact
“By removing the need for specialized lab infrastructure, MOVE! opens up biomechanical analysis to a far broader range of practitioners,” said Nobuchika Yamaki, CEO of TNQ Tech, Co. “We expect it to accelerate both performance optimization and injury prevention in ways that were not previously possible outside elite facilities.”



Compare movements with ease—ideal for rehab tracking and technique mastery.

Availability
MOVE! is now available on the Apple App Store.
$19.9/ Lifetime
<Download here>

About TNQ Tech, Co.
TNQ Tech, Co. develops mobile-first sports science solutions that integrate biomechanics, neuroscience, and AI to bridge the gap between research and real-world performance. Its products are used by athletes, coaches, and organizations worldwide to measure, understand, and improve performance anytime, anywhere.

> GRF is key to understanding athletic performance. With MOVE!, measure GRF, joint angles, COM, and jump height in real time—anywhere you train, using only your iPhone.”
> *Nobuchika Yamaki, CEO, TNQ Tech, Co.*

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