Movetrics

MADE IN GERMANY

3D FORCE PLATES · SOFTWARE · AI · GAMES

See the forces behind movement.

Portable plates that measure force in every direction under each foot. Live on any screen, explained in plain words, open to your own AI, and playable as games.

Movement, understood.





The F1-3D: forces in three directions and all three moments, under each foot.

WHY MEASURE

The eye sees the movement. Not the forces.

Two squats can look the same and load the legs differently. A plate shows how hard someone pushes, in which direction, where under the foot, and how evenly left and right share the work.

Practitioner-led rehabilitation

Compare loading over time, left against right, and show people their progress at a glance.

Sport and performance

Jumps, landings and strength tests, plus the braking, push-off and turning a vertical-only plate cannot see.

Research and education

Raw data, one clock for every plate, analog and sync outputs, and live forces for the lecture hall.

Gyms and studios

Games that read force while people play, and a result after every round that they want to beat.

One number, or six?

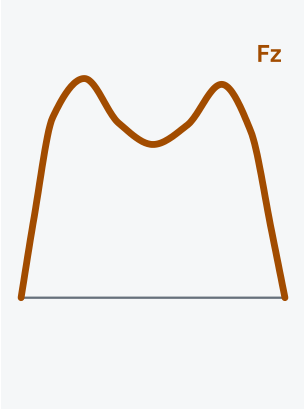
A bathroom scale shows one number. Many portable force plates measure one direction: down. Movetrics plates measure force in all three directions, and the moments that show where it acts and how it turns.

Bathroom scale
kg



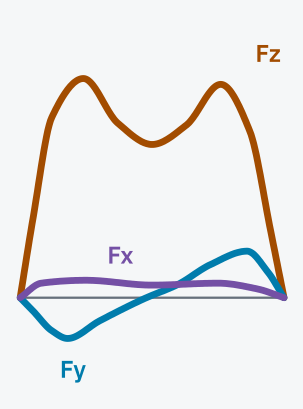
One number, standing still. Nothing about how you move.

1D force plate
Fz



How hard you push down, moment by moment: jumps, landings, standing up.

3D force plate
Fx · Fy · Fz

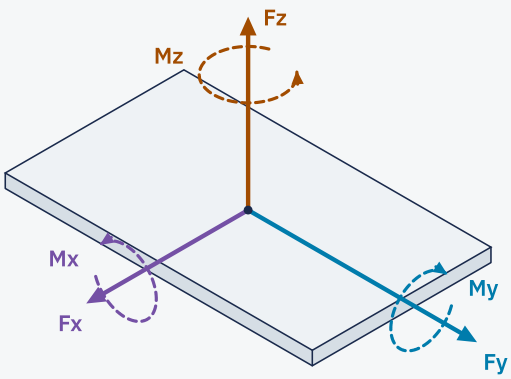


Which way you push: braking and push-off in every step, and the sideways shear of every turn.

With moments
Mx · My · Mz



Where under the foot the force acts, the basis of balance, and the twist between foot and floor.



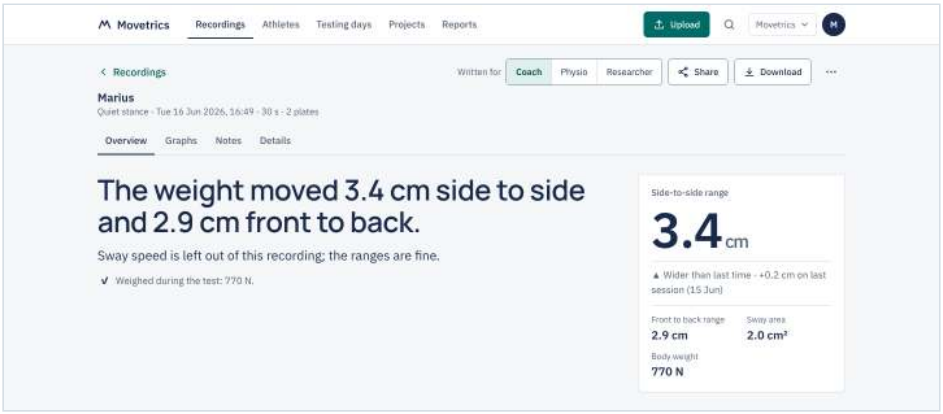
SIX NUMBERS, AT EVERY INSTANT

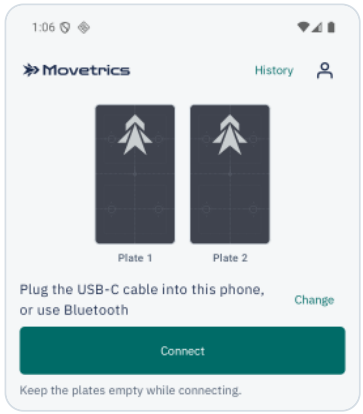
Fz	**Vertical force** how hard you push down
Fx · Fy	**Horizontal forces** braking, push-off and sideways
Mx · My	**Centre of pressure** where under the foot the force acts
Mz	**Free moment** the twist between foot and floor

The F1-3D measures all six. The F1-3D S measures five as standard, and all six on request.

See it live. Understand it in plain words.

Every result names the method that calculated it. An optional AI read explains it, and your own AI assistant can work with all your recordings.





Left: Movetrics Cloud in the browser. Right: the Movetrics app on a phone. Example data.

No app required

IN THE BROWSER

Plug the FDT into a computer over USB, open Movetrics Cloud in Chrome, Edge or Firefox, and record live at the full rate of the plates.

On every screen

APPS

Movetrics Studio for Windows, included. The Movetrics app for iPhone, iPad, Mac and Android.

Already own plates?

START TODAY

Movetrics Cloud reads files from most force plates: CSV, text tables, Excel and C3D.

OPEN TO YOUR OWN AI

Claude, ChatGPT and your own AI

Connect Claude, ChatGPT and other AI assistants to Movetrics Cloud through MCP, an open standard. Ask about your recordings in your own words: compare athletes, find a change, draft a report.

It reads by default and changes only what you allow, and every change can be undone.

ASK YOUR OWN AI

Which of my athletes landed more evenly on both legs this month?

Athletes 03 and 07 landed more evenly in their last three drop jumps; Athlete 01 loaded the left leg more. Each value names its method.

Add a note to today's jump: tested after a long run.

Done. You can undo it.

Illustration with example data.



Movetrics Play on a TV: step on, and the game starts. The games give relative training feedback, not medical measurements.

MOVETRICS PLAY

More than a game

Step on a plate and your body becomes the controller. Behind the fun runs real biomechanics: a console guesses movement, Movetrics Play reads it from the forces under your feet.

1

Step on

The plate takes your weight. No account, nothing to set up.

2

Play

Lean, push, step or jump: your movement steers the game.

3

Your result

Each round ends with a result for how you moved.

4

Again

Play the next round, and watch your result change.

WHAT THE GAMES READ

Reaction
how fast you answer a cue

Balance
how you lean, push and twist

Symmetry
how evenly left and right share

Reach
how far you shift your weight

Jump
flight time and landing

Aim
how precisely you dose a push

A lifetime of results

Round by round, the results add up to one score that follows how someone moves, across a lifetime. It is calculated in the background, so playing is all it takes.

On equal terms

Every game scales to body weight, so a child and an athlete play on equal terms. For Windows 11, with a demo mode.

One system, plate to screen

Plates that measure, a terminal that puts them on one clock, and software on every screen.



From left: four F1-3D S as a Quad, two F1-3D, the FM-3D and the FDT.

F1-3D S

THE COMPACT PLATE

400 × 280 × 30 mm, 10 kg. Five components, six on request. Two join into one 40 × 56 cm platform.

F1-3D

THE UNIVERSAL PLATE

600 × 350 × 30 mm, 20 kg, 8 mm steel top. All six components. For jumps, landings, strength, gait and balance.

FM-3D

THE FORCE MATRIX

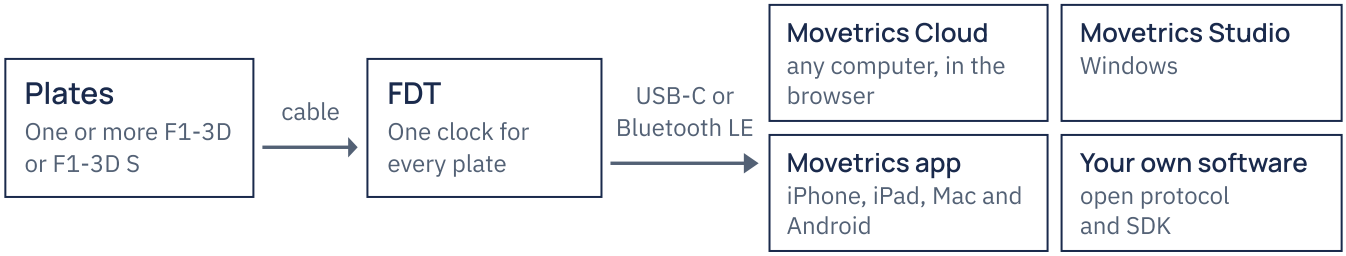
18 mm thin, for walking, balance and rehabilitation. A pressure matrix on top of force and moment sensors, with video in our apps: force, pressure and video on one clock.

FDT

THE FORCE DATA TERMINAL

Multiple plates on one clock. USB-C or Bluetooth LE, analog outputs, Sync In and Sync Out. Rechargeable.

HOW IT CONNECTS



Systems: F1-3D Dual, Triple and Quattro; F1-3D S Solo, Dual and Quad. Movetrics Studio for Windows comes with every system. Movetrics Gait puts four F1-3D S under a treadmill and measures walking, step by step.

BEFORE YOU DECIDE

Straight answers

The questions people ask us most, before they buy.

Is it complicated?

Set up in under a minute from a saved layout. Remote setup and two hours of online training are included.

Will my team and clients use it?

Guided tests, results in plain words, and games people want to play again.

Do I need a subscription?

Measuring, core calculations and exporting your raw data never need a subscription. Movetrics Cloud is free to start, with paid plans for more; most AI features are part of the paid plans.

Who owns the data?

You do. Raw data in CSV and C3D, an open protocol, and an SDK under Apache-2.0. Cloud data is stored in the EU.

I already have force plates.

Good. Movetrics Cloud reads their files today: CSV, text tables, Excel and C3D.

Does it fit my space?

Portable on any flat, rigid floor, flush in a recess frame, or as a walkway or floor made for your site.

Is it a medical device?

No. It measures, calculates and shows. You interpret, as the practitioner, the coach or the researcher.

Who stands behind it?

Nur Engineering GmbH in Duisburg, developing sensors since 2012. Made in Germany, CE marked, two-year warranty for business customers.



SUPPORT

In English, German, Italian and Arabic, by email and phone. We answer within one working day.

YOUR OWN INSTALLATION

A walkway, a floor of any size, or our sensor modules in your product. It starts with a free feasibility call: contact@movetrics.com.

Left: Movetrics Gait, four plates under a treadmill.

TALK TO US

Stand on a plate, and see for yourself.

Ask for a demonstration, a quote for your setup, or the product sheets with every technical figure. For the science behind it, ask for our booklet *Movement, understood.*

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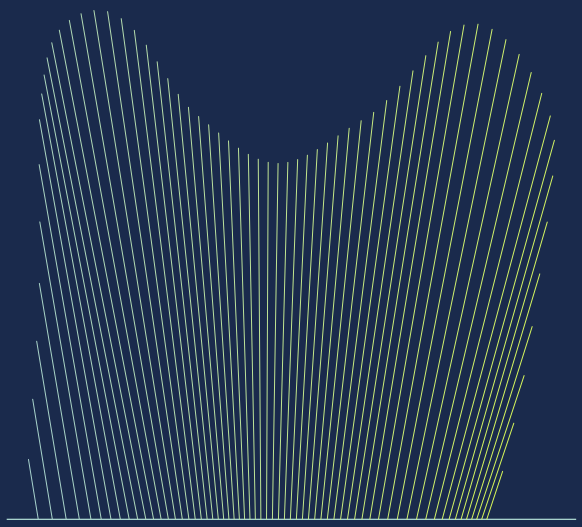
Support by email and phone, in English, German, Italian and Arabic. We answer within one working day.

Right: one walking step, drawn as forces, from braking to push-off. The booklet explains how to read it.



Movetrics systems measure forces and moments, calculate metrics and display them, for sport, research, education, and practitioner-led training and rehabilitation. They are not medical devices. They do not diagnose, treat, monitor or predict any disease or condition, and their results do not replace professional judgement.

Product photos: real photographs of the products; settings, backgrounds and the TV were created or edited with AI. Screens show our own software with example data. Edition 1.

Movetrics

Movement, understood.

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