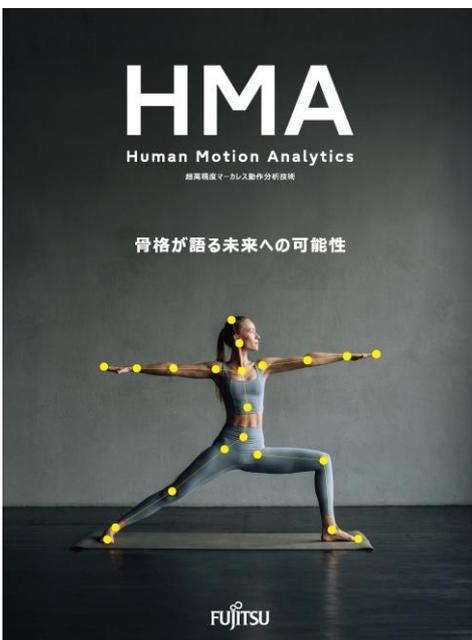


## Markerless Motion Capture

# Enhancing human activities through high-precision analysis of skeletal motion

Fujitsu supports your data-driven management and operational transformation through diverse data platforms and professional assistance. By deriving unprecedented solutions and insights from data, we deliver DX for our customers and solutions to societal challenges.



This service is a data analysis platform that leverages computer vision powered by Fujitsu's high-precision posture recognition AI technology. Developed through the gymnastics scoring system, this technology enables high-precision 3D analysis of complex, high-speed human movements using four cameras.

Leveraging this technology enables the development of applications that enhance health and sports performance across fields such as healthcare, entertainment, sports, and ergonomics. We create and deliver new value based on real human movement.

## Service Features

- 1 Markerless Motion Capture**

Performs 3D motion analysis without attaching surface markers or motion sensors to the body, using footage captured by standard cameras. This enables simple, rapid analysis of complex motion data, making it applicable even in scenarios where markers cannot be worn.
- 2 High-Precision Posture Recognition AI Technology**

Equipped with an AI learning model capable of high-precision recognition even for complex movements, enabling accurate analysis. It also incorporates a proprietary correction algorithm that significantly reduces inconsistencies in posture recognition, a challenge in conventional image analysis.
- 3 Reduced Development Time**

The AI, pre-trained on a large volume of learning data generated from photorealistic images and approximately 100 basic human movements, significantly shortens the training period, enabling rapid deployment. Furthermore, it can be used with commercially available smartphones and webcams, making motion capture more accessible than ever before.

# Why We Recommend It

## Adopted by World Gymnastics

Trusted technology officially adopted by FIG at the World Gymnastics Championships since 2019.



Based on proven technology cultivated through gymnastics

## Delivered worldwide through partnerships

Fujitsu, with over 130,000 employees in more than 100 countries worldwide, can deliver globally through collaboration with partners.



Capable of providing identical support across multiple countries

## Customizable Viewer

Digitized human motion data can be customized using existing gymnastics viewers.



Utilizes a proven viewer

## Applications

### Sports

Expanding skeletal recognition technology cultivated in gymnastics to other sports



#### Performance measurement

Expanding technologies that digitize human movement, such as soccer kick force evaluation and form analysis, to other sports.

### Ergonomics

Achieving more comfortable movement through ergonomically designed solutions



**Industrial Site Performance**  
Enhances production line efficiency and prevents injuries by measuring physical strain



#### Athlete Conditioning

Accumulating athlete data over time for conditioning purposes



**Improving Work Posture**  
Designing office furniture to improve work posture and analyzing telework posture to prevent prolonged sitting

### Healthcare

Improve health and well-being through the digitization of human movement



#### Remote Fitness and Digital Therapeutics

Remote exercise guidance and progress monitoring for MSK patients by physical therapists



#### Corporate Health Management

Providing exercise via apps to maintain and improve employee health, a critical challenge for companies

### Entertainment

Delivering unprecedented viewing excitement using real-time data



#### Visualization through numerical data

Visualize dynamic athlete movements through numerical data, visually expressing their challenges and drama



#### Delivering fan engagement

Enhancing stadium fan excitement with large-screen data-driven presentations

## Contacts

Fujitsu Limited

Contact Fujitsu

[Contact Form](#)

