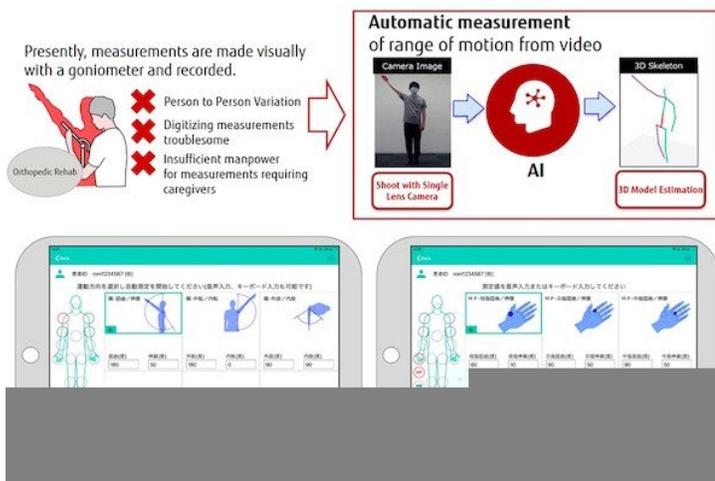# Fujitsu unveils AI-powered physical rehabilitation solution

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Automated system input for visual measurement and measured values of shoulder and elbow joint range of motion

Fujitsu has announced the launch of a new AI-powered physical rehabilitation solution in Japan, the "FUJITSU Healthcare Solution HOPE ROMREC", offering medical institutions like hospitals and clinics a powerful new tool for rehabilitation and orthopedic therapies.

The solution leverages a new AI technology to automatically measure the range of motion of the shoulder and elbow joints from videos of patients' rehabilitation sessions.

"HOPE ROMREC" is a solution that automatically measures, records, and visualizes the angles of a patient's shoulder and elbow by estimating a three-dimensional skeleton from rehabilitation videos captured using a tablet device. The solution leverages an image analysis AI engine developed by Fujitsu consisting of multiple AI image recognition models.

The technology offers the potential to greatly improve the efficiency of the visual measurement of a patient's joint curvature using a goniometer, a task conventionally performed by physical therapists and occupational therapists. Ultimately, the solution will help medical professionals evaluate the effectiveness of physical and occupational therapies and determine the degree of their patients' conditions.

Going forward, Fujitsu plans to continue strengthening the HOPE ROMREC solution and increase the number of measurement sites for range of motion detection. Fujitsu additionally plans to incorporate functions including automatic measurement of range of motion by simply sending video taken by a patient at home to their hospital or clinic, contributing to the realization of remote rehabilitation.