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A Study on the Establishment of a 4-Joint Based Motion Capture System and Data Acquisition

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Abstract : A simple method for testing the posture imbalance of the human body is to check for differences in the bilateral shoulder and pelvic height of the target. In this paper, to check for spinal disorders the authors have studied ways to establish a motion capture system to obtain and express motions of 4-joints, and to acquire data based on this system. The 4 sensors are attached to the both shoulders and pelvis. To verify the established system, the normal and abnormal postures of the targets listening to a lecture were obtained using the established 4-joint based motion capture system. From the results, it was confirmed that the motions taken by the target was identical to the 3-dimensional simulation.

Keywords : inertial sensor, motion capture, motion data acquisition, posture imbalance
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