

Title (en)
DETECTION AND MEASUREMENT OF BODY PART MOVEMENT USING CAPACITIVE SENSORS AND INERTIAL SENSING SYSTEMS

Title (de)
DETEKTION UND MESSUNG EINER KÖRPERTEILBEWEGUNG MIT KAPAZITIVEN SENSOREN UND TRÄGHEITSMESSSYSTEMEN

Title (fr)
DéTECTION ET MESURE DE MOUVEMENT DE PARTIE DE CORPS À L'AIDE DE CAPTEURS CAPACITIFS ET DE SYSTÈMES DE DÉTECTION D'INERTIE

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EP 3157421 A4 20180214 (EN)

Application
EP 15809794 A 20150618

Priority
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Abstract (en)
[origin: WO2015195958A1] Systems and methods for distinctly detecting the movement of a first object and the movement of a second object relative to the first object are provided that utilize a capacitive sensor array and an inertial sensing system. The systems and methods are particularly suited for the detection and measurement of first body part movement (e.g., leg movement) and second body part movement (e.g., foot flexion). In one embodiment, the system utilizes a textile-based capacitive sensor array and one or more inertial sensors disposed on a flexible structure that is adapted to be wrapped around a body part, such as a leg. The systems and methods can be used to calculate periodic leg movements (PLM) and general leg movements (GLM) based on detected movements of the leg and foot.

IPC 8 full level
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