

Ultrasound-based skeletal motion capture

HealthCare / Orthopedic / 3D Imaging



RÉFÉRENCE

UBOT [L1427]

MOTS-CLÉS

ULTRASOUND / KINEMATIC ANALYSIS / DIAGNOSTIC / 3D



APPLICATIONS

- **Quantitative Walking Analyse :**
precise measurement of bones kinematic
- **Human and animal diagnosis :**
articular pathologies detection (tendons, meniscus, ligament disorders)
- **Preparation and follow-up of orthopaedic surgery :** prosthetics optimisation



TARGET MARKETS

- Orthopaedic surgeon
- Sport physician
- Veterinarian

Technology readiness level

TRL 3



INTELLECTUAL PROPERTY

Priority Patent pending FR1754444.

CONTACT US

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DESCRIPTION

Coupling ultrasound sensors and a motion capture system, this device can analyse in real time the position and behaviour of bones (both deep and superficial) in a joint. Initially build for quantitative walking analysis, in cases of knee joint instability (e.g. sprain or ACL), this device can be adapted to any articulation involved in the musculoskeletal system. Moreover, the device can be used in both closed and open environment enabling real condition measurements.

COMPETITIVE ADVANTAGES

- Direct and dynamic capture of the bones kinematic
- High precision measures unbiased by soft tissues
- Suitable for various articulations
- Non-invasive analysis

DEVELOPMENT STATUS

- Proof of concept validated on anatomical piece
- Prototype currently under certification
- Pilot clinical trial starting in 2018

PARTNERSHIP

PULSALYS is looking for industrial partners in human and veterinarian health area interested in development or co-development of this device.



RETROUVEZ NOS OPPORTUNITÉS

www.pulsalys.fr/entreprise/offres-technologies/

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