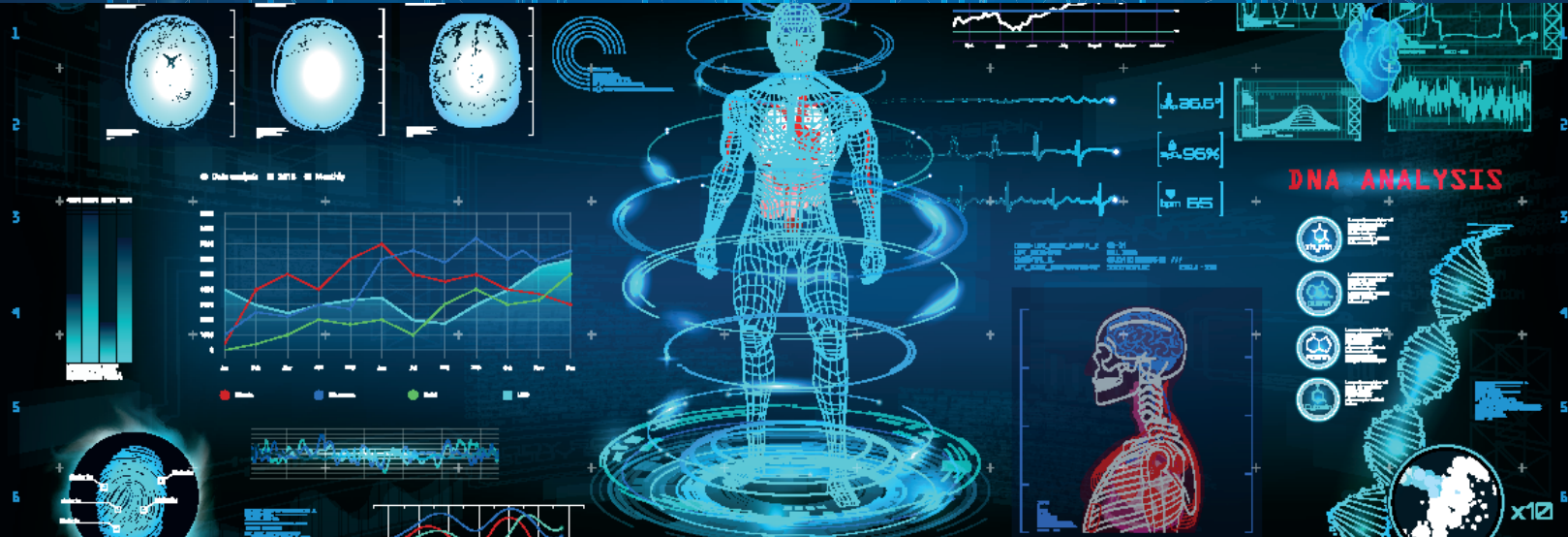


TURING MOTION

www.turingsense.eu

HOW TO MAKE A PRODUCT BASED ON MOTION CAPTURE?



WE GET INSPIRED BY HUMAN BODY

WE APPLY:

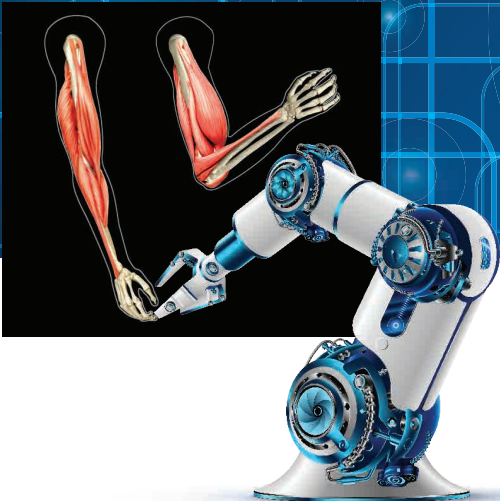
INERTIAL SENSOR
TECHNOLOGY

ALGORITHMS AND
SOFTWARE

CUSTOMIZATION

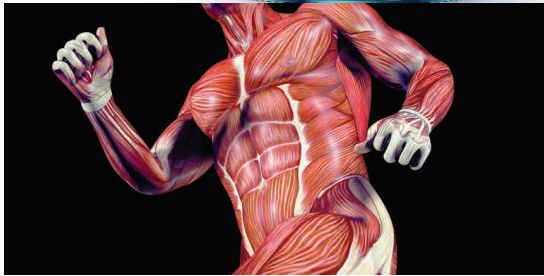
HW CUSTOMIZATION

Application of inertial sensors technology has limitations that require every solution to be customized.



PROBLEM 1: COST OF TECHNOLOGY

The high cost of wearable technology is not anymore related to the single motion tracker, but rather on the overall solution (Hardware + body interfaces + software) that usually relies on Full Body mocap suits.



We provide customized research kits that can save costs in your project and get closer to the final application..

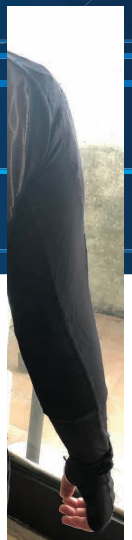


PROBLEM 2: USER SETUP

User setup and the way in which sensor technology is anchored to human body is as important as the technology itself.

Wearable technology is certainly portable, but for end-user applications the usage of simple straps and time-consuming setup is not applicable.

We provide easy to wear technology that can fit on your body.

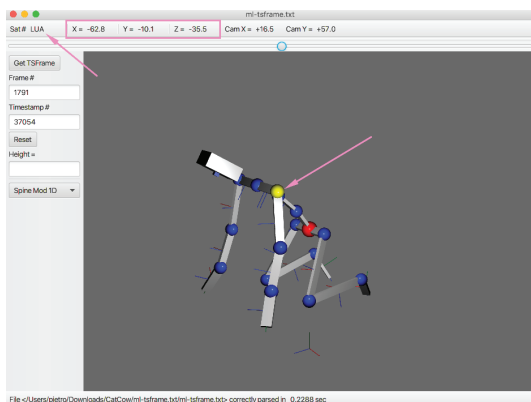


OUR ACHIEVEMENTS AND SOLUTIONS



MAGNETOMETER-FREE

Limitation in the application of magnetic sensing technology in disturbed environments has been overcome by the introduction of “magnetometer-free” techniques^{1,3}



BIOMECHANICAL MODELS

Our multi-disciplinary team has 15+ years experience in biomechanical modelling and its kinematics and dynamics 3D representation^{2,4,5,7}

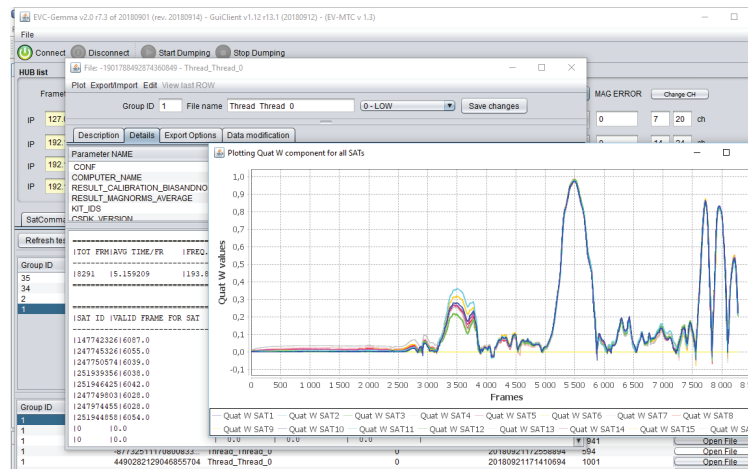


OUR SOFTWARE DEVELOPMENT INCLUDES:

- Magnetometer-free sensor fusion algorithms
- Customized user calibration
- Real-time kinematics data visualization
- Motion Capture Database management

DEVELOPMENT PLATFORM

Generic motion capture software limited to research labs have been converted into software platform for quick and customized development



CONFIGURATION	UPPER BODY (MONOLATERAL)	UPPER BODY (BILATERAL)	LOWER BODY (MONOLATERAL)	LOWER BODY (BILATERAL)	FULL BODY	RUNNING	MULTI-SUBJECT
NUMBER OF INERTIAL UNITS	5	9	5	8	16	3	max 8 each.
EXAMPLES OF APPLICATION	Functional evaluation, tennis, basket	Functional evaluation, posture, ergonomics, fitness	Fitness, spine assessment, gait analysis, running	Gait analysis, running, fitness	Upper and Lower body coordination, ergonomics	Running, jump analysis	Team games, interactions between different subjects or with objects



3D AVATAR

Movement visualization evolved from “lab-oriented” stick figures to real-time 3D avatars for real-time visual feedback or replay



CLOUD MANAGEMENT

Our expertise in cloud solutions allows to review 3D motion capture, troubleshoot and easily share results

QUALITY

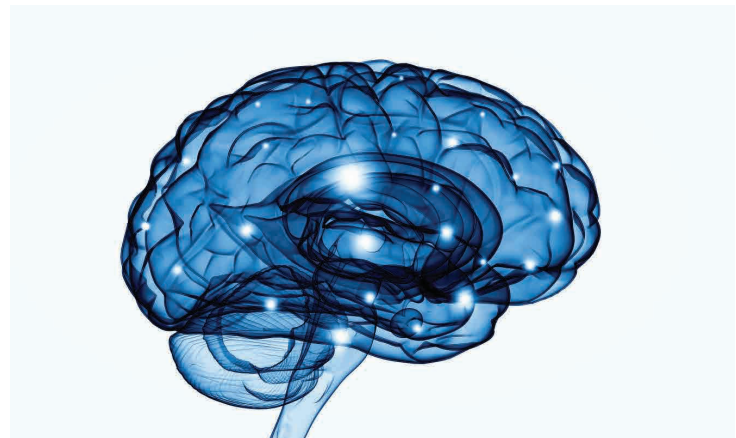
QA PROCESS

Projects based on Motion Capture require high quality not only regarding data, but also during development to keep your project within a realistic timeline.

We have long experience in software quality and automatic tools for quality assurance.

VALIDATION

We follow you in the development and validation process by means of well-defined design of the system and scientific approach based on our experience in medical devices and rehabilitation tools creation.



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TURING MOTION

www.turingsense.eu

Turingsense EU LAB s.r.l.
Via Zotti 20, 47122 Forlì (FC), Italy
P.IVA: 04222090401
info@turingsense.eu