



MOVIT SYSTEM

PRODUCT OVERVIEW

SUMMARY

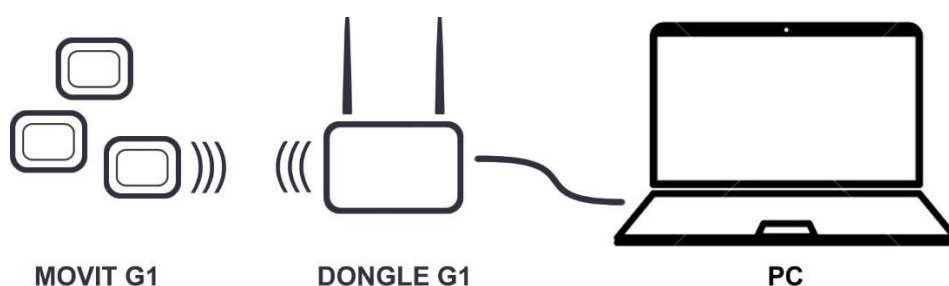
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INTRODUCTION

MOVIT SYSTEM is a wearable system for motion analysis and measurement. The ideal solution for an easy and complete analysis of the body through inertial devices. The Movit inertial devices, wireless and of small dimensions, can work in any type of environmental condition and brightness. Captiks technology can be used in various application fields such as medical, rehabilitation, sports, postural analysis, tele-medicine, ergonomics, motion capture, remote monitoring and other industrial applications.

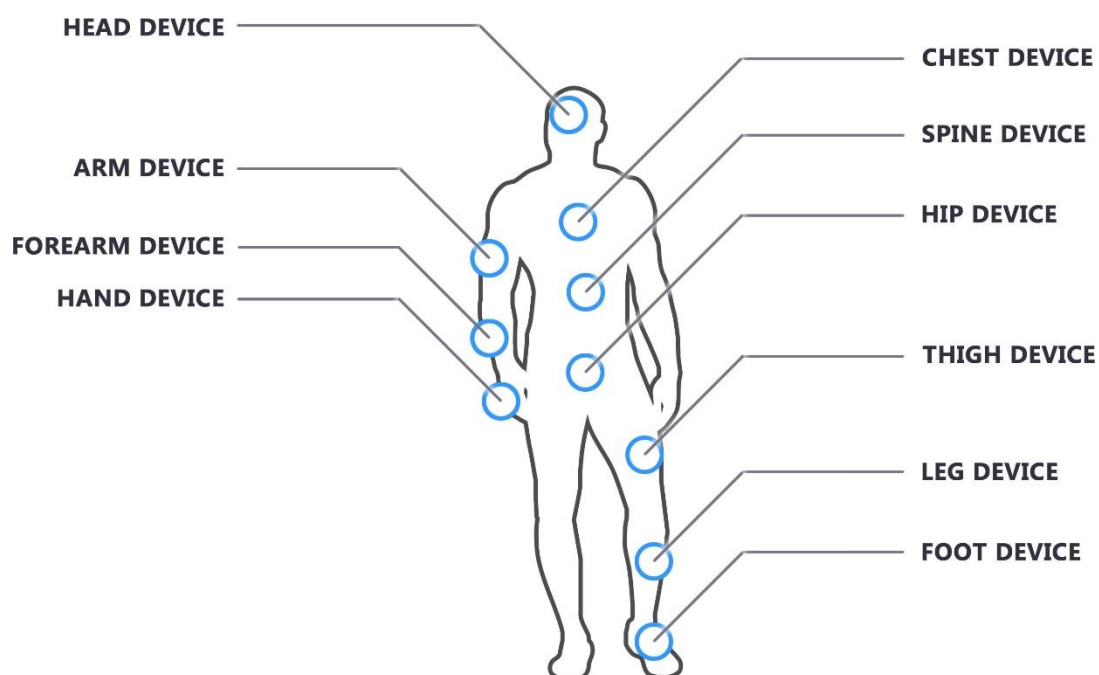
SYSTEM

MOVIT SYSTEM is a wearable wireless system ideal for Motion Capture and motion analysis. The system consists of wearable wireless inertial devices and a wireless receiver connected to the PC via USB. The system can be used both indoor and outdoor. It has no light or environmental constraint. The inertial devices and the receiver are named Movit G1 and Dongle G1 respectively.



BODY POSITIONING

Each Movit G1 device was designed to be universal and applicable to the main parts of the body. Through the wearable supports and a quick coupling / release system it is possible to easily wear the devices.



REAL TIME / OFF LINE

The system allows two possible recording scenarios: real time or offline with memory card.

REAL TIME – STREAMING



By setting recording in Real Time, you can receive real-time data from the sensors and record it on your computer.

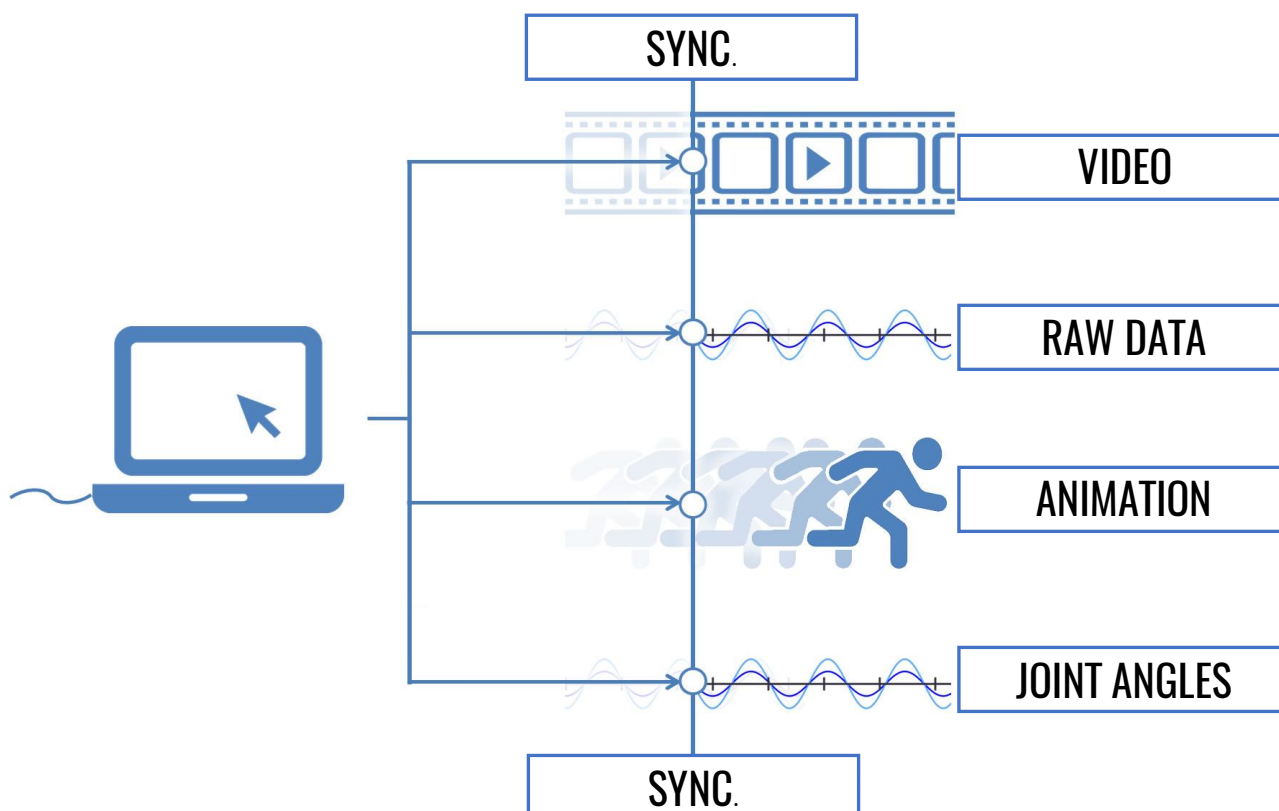
OFFLINE – MEMORY CARD



By setting recording on the Memory Card, you can perform one or more recordings. The recordings must then be downloaded from the sensor via USB connection with the PC.

SYSTEM OUTCOMES

The system allows to record and export, on file or in real-time, the data collected by the sensors. One of the various advantages of adopting the Movit System is that of being able to see data in real time in parallel with the motion capture 3D animation and with an acquisition of a video stream (captured via integrated webcam, USB or external).



The synchronization between these distinct acquisition methods provides a complete picture of measurement and observation.

DATA

The system allows you to record and export the following data types:

RAW DATA

ACCELEROMETER

3D Accelerometer, X, Y, Z, up to 200 Hz, from ± 2 g up to ± 16 g.

GYROSCOPE

3D Gyroscope, X, Y, Z, up to 200 Hz, from ± 250 dps up to ± 2000 dps.

MAGNETOMETER

3D Magnetometer, X, Y, Z, up to 100 Hz, up to ± 4800 μ T.

BAROMETER

Pressure from 300 up to 1100 mBar.

QUATERNIONS

Vectors W, X, Y, Z for both raw and calibrated orientation.

ANIMATION

BVH FILE

A file that contains the animation of the movements performed by the user. Requires calibration.

JOINT ANGLES

NECK

Flexion / Extension, Lateral Bending Right / Left, Rotation Right / Left

TRUNK

Flexion / Extension, Lateral Bending Right / Left, Rotation Right / Left

PELVIS

Tilt Front / Rear, Lateral Bending Right / Left, Rotation Right / Left

SHOULDER

Flexion / Extension, Abduction / Adduction, Rotation Internal / External

ELBOW

Flexion / Extension, Pronation / Supination

WRIST

Flexion / Extension, Deviation Ulnar / Radial, Rotation Internal / External

HIP

Flexion / Extension, Abduction / Adduction, Rotation Internal / External

KNEE

Flexion / Extension, Varus / Valgus, Rotation Internal / External

ANKLE

Dorsiflexion / Plantarflexion, Inversion / Eversion, Rotation Internal / External

VIDEO

MP4 VIDEO FILE

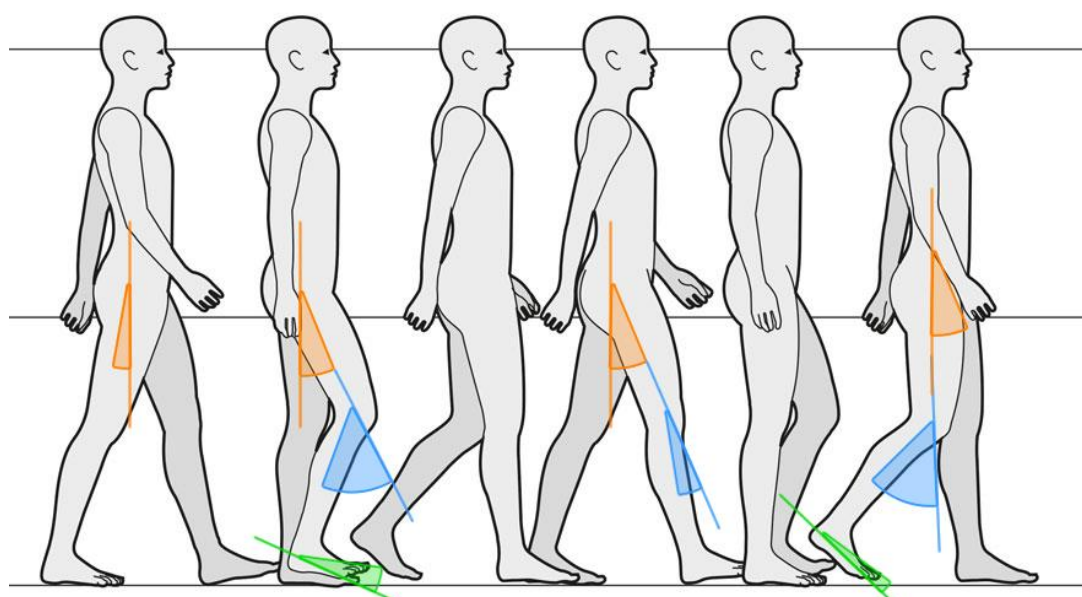
Optional video file that can be recorded for a comparison between the recorded data and the post-analysis scenario.

USE CASES

The Movit System is frequently used to perform:

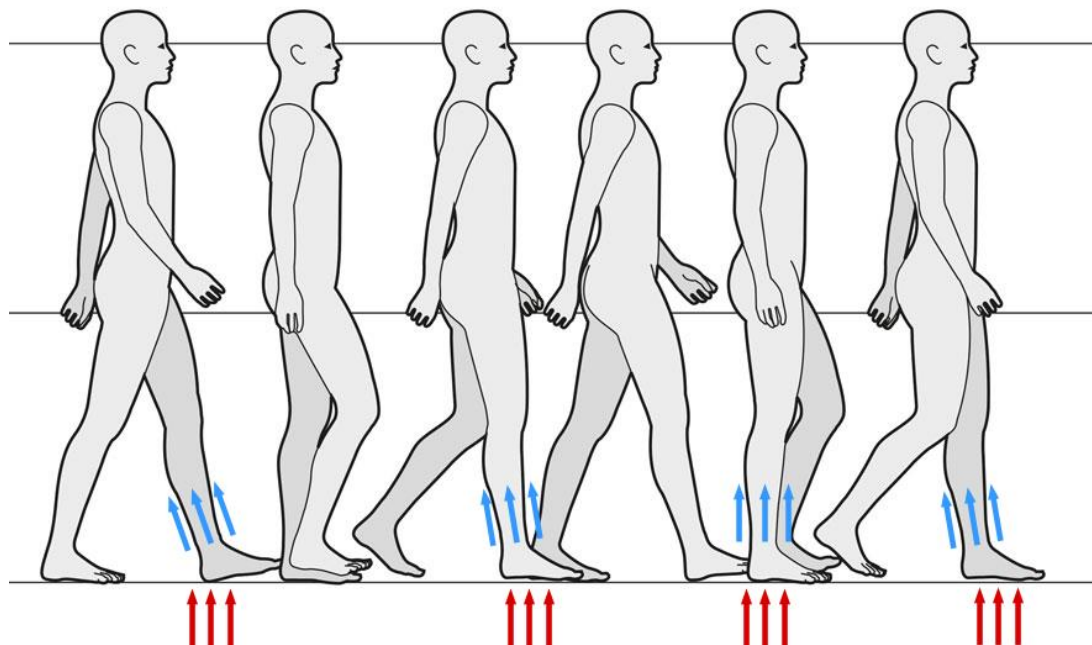
GAIT ANALYSIS

It is possible to visualize the reproduction of the movements during a walk, view the joint angles of interest (eg flexion / extension of the knee) and also observe the accelerations during the impact phase.



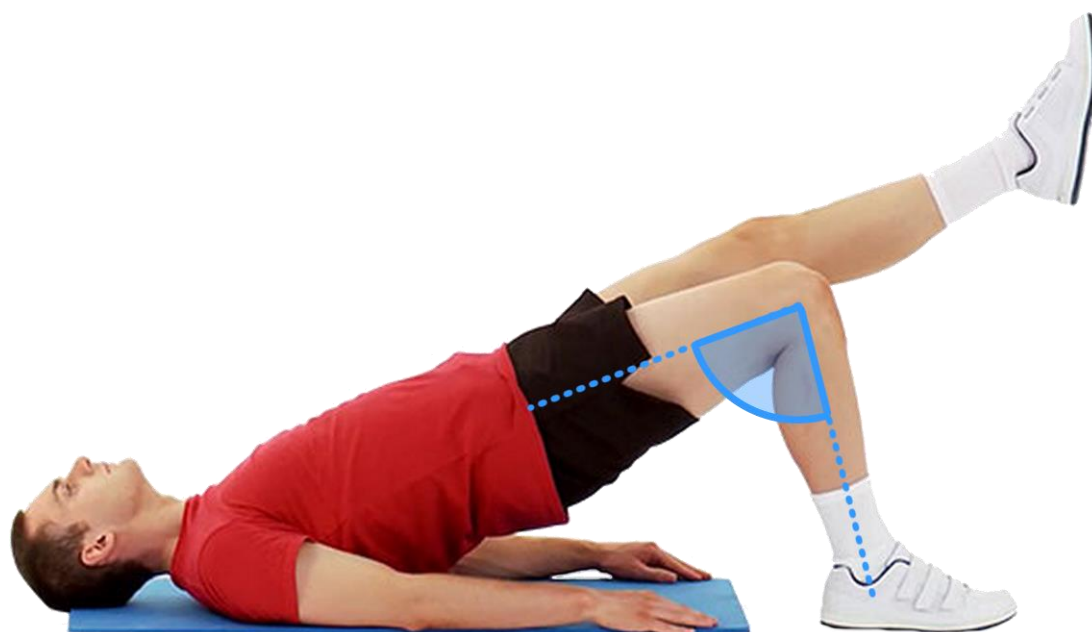
SHOCK IMPACTS ANALYSIS / GROUND REACTION FORCE

Focusing on accelerations, you can observe the Shock Impact or Ground Reaction Force during a session of use.



REHABILITATION / RANGE OF MOTION

By measuring the angles it is possible to obtain the range of motion of specific joints.






ERGONOMICS

Measuring the kinematics of all the limbs of the body, makes it possible to evaluate also the ergonomic indexes of specific workstations or of interaction with the environment.



CONFIGURATIONS

The Movit System is provided in three configurations:

Kit 05 Minimal Config	Kit 08 Half Body	Kit 16 Full Body
		
<ul style="list-style-type: none">✓ Product: Movit System G1✓ Version: 3D Edition 05✓ Body: Partial✓ Devices: 5 Movit G1✓ Receivers: 1 Dongle G1✓ Wearab. Supp.: 5 Bands (2 S, 2 M, 1 L)✓ Software: Motion Studio Motion Analyzer	<ul style="list-style-type: none">✓ Product: Movit System G1✓ Version: 3D Edition 08✓ Body: Half✓ Devices: 8 Movit G1✓ Receivers: 1 Dongle G1✓ Wearab. Supp.: 7 Bands + 1 Chest✓ Software: Motion Studio Motion Analyzer	<ul style="list-style-type: none">✓ Product: Movit System G1✓ Version: 3D Edition 16✓ Body: Full✓ Devices: 16 Movit G1✓ Receivers: 1 Dongle G1✓ Wearab. Supp.: 15 Bands + 1 Chest✓ Software: Motion Studio Motion Analyzer
CONTACT US FOR KIT 05	CONTACT US FOR KIT 08	CONTACT US FOR KIT 16

CONTACTS

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