

TESLASUIT

The Suit

Our advanced physical suits provide haptic feedback and climate control, and capture both motion and biometrics.



Haptic Feedback

Touch and force feedback, helping define actions and develop reflex

Teslasuit's full body haptic feedback system is built into the suit and can be engaged on actions, on demand, or in response to motion capture comparison. This feedback provides users with sensation and a sense of touch in virtual and augmented reality. This electro-stimulation improves the learning experience by increasing immersion, fostering 360-degree awareness, and engaging muscle memory.

Biometrics

Our biometrics system monitors multiple vital data signals- enabling advanced health and performance data analysis

Teslasuit's integrated biometric system gathers real-time data from users while training – which can be used to relay emotional state, stress level, and key health indicators. This enables interactive VR/AR training content that adapts to the trainee for personalized experiences, and measurement of key baselines to understand improvement or degradation over time.



Motion Capture

Our state-of-the-art motion capture system records and tracks body position and movement

Integrated skeletal and 3D kinematic motion capture tracks human body interaction within the virtual training environment. This capture is essential to the delivery of correctly placed haptic experiences, and allows for professionals to lay down baselines users can compare against. Using motion capture in training improves motor skills by enabling haptic guidance and error augmentation based upon baselines from professionals or a user's own past tracked actions.

Specifications

- The Suit

Smart textile two-piece full body suit (jacket and trousers).

New technologies combined in a smart fabrics to fit the body as a second skin.

Stretchable, breathable, durable and even washable.

- Software Tools

Haptic Editor – Full scale software for modulating and developing haptic presets.

Thermal feedback management system.

Skeletool – Advanced tool for motion tracking: setup, calibrating, recording and converting.

- Wireless

Bluetooth or Wi-Fi 2.4 ghz

- Pulse Amplitude
 - 0-15 mA / per channel
- Control Unit
 - Control unit included
- Pulse Width
 - 1-260ms / per channel
- Tactile Feedback
 - 80 electrostimulation channels
- Frequency
 - 1-300 Hz / per channel
- Motion Tracking
 - 10 internal motion capture sensors
- Battery
 - Rechargeable long-life battery, 8-10 hours battery life
- Temperature Control
 - 5 temperature channels allows simulation of high temperature environments
- Size
 - XS, S, M, L, XL, XXL and custom made, height Medium and Tall
- SDK and plugins
 - Windows 10 • Real-time visualization • Unity 5 • Unreal Engine 4



The Software

Training Environments

Run training programs and manually trigger sensations.

Developer Control

Utilize our library of preset haptics and climates for training programming.

Motion Review

Record, playback and compare digital reports of human movement in space.

Analytics

Review biometric readings and track performance.



Bundled Applications

Telasuit comes bundled with the following software: Haptic Player, Haptic Editor, Skeleton Tool and an SDK. The intuitive and user-friendly SDK (software development kit) is compatible with iOS, Android, Windows and Linux. The list of compatible devices includes most VR headsets, game consoles, smartphones, tablets, PCs and other devices with Wi-Fi and Bluetooth.

The system tools include:

- Haptic Editor – user-friendly application to create haptic pre-sets and animations.
- Haptic Player – play haptic presets and animations
- Skeleton Tool – recording the avatar like body motion animations for future integration
- Software Development Kit – creating super immersive content with the Telasuit SDK is now a breeze.

System tools allow developers to enhance the VR experiences and games by integrating through Unity3D and Unreal engine plugins. Building an incredible fully immersive experience for either PSVR, PC or Mobile VR is now a straightforward process. Developers can also create custom mods for games and applications using predefined sensations and presets.

Development Kits of the Telasuit start shipping to B2B and Developers market in Q3 2018.

SPECIFICATIONS

- Smart textile two-piece full body suit (jacket and trousers)
- Haptic feedback system
- Motion capture system
- Climate control system
- Wireless (Bluetooth or Wi-Fi)
- Control unit
- 16-64 Channels (32-128 electrodes)
- Pulse Amplitude 0-80 mA (per channel)
- Frequency 1-1000 Hz (per channel)
- Pulse Width 1-260us (per channel)
- Rechargeable long-life battery
- Size: XS, S, M, L, XL, XXL, XXXL and tailor made



Haptic feedback system

Motion capture system

Climate control system