



Immermove is an experimental platform for the analysis of human movement and interaction, particularly in the field of sports. It is a 30 x 20 m<sup>2</sup> gymnasium fully equipped and dedicated to analyzing human motion. It also includes VR devices and a CAVE of 12m\*4m\*4m.

It is combined with Immersia, the VR platform in Irisa-Inria, in a unique collaborative immersive platform named "ImmerSTAR" (<https://www.irisa.fr/node/826>).

## Technical specifications

Vertical retro-projected main screen: 12 x 4 m<sup>2</sup>

Direct-projected ground screen: 12 x 4 m<sup>2</sup>

Right side screen : 4 x 3 m<sup>2</sup>

Stereo Projectors (120 Hz) : 4 Christie Mirage 4K25 + 1 Christie Mirage WU12K-M

Tracking system: 12 Vicon Bonita cameras, 1 Apex

Active stereoscopy with RF Volfoni ActiveEyes

Surround sound 5.1

Rendering software: MiddleVR

## Equipment

Ground forces measurement: 2 force plates 120x60cm (AMTI)

Electromyographic systems

16 wireless Trigno Advanti (Delsys)

16 waterproof wireless mini wave infinity with a Wave Plus EMG system (Cometa)

Motion capture systems

Qualisys system with 23 cameras (7+)

Vicon system (Oxford Metrics) with 24 camera (MX and Vantage)

Optitrack (Natural Point) with 20 cameras

Cycle Ergometer: SRM indoortrainer science version with 7 powercontrol and a crank torque analysis system

Head mounted display (HTC): 8 HTC Vive Pro

Kinect 2 (Microsoft)