Motion capture arena

This facility is a large room (~10x10x5.5 m volume) equipped with an array of Optitrack motion capture cameras and an accompanying software. The system allows to track up to 50 rigid objects with a position error less than 1 mm and with a frame rate of up to 200 fps. The cameras illuminate the scene with IR light so the use of special passive markers on the tracked objects is necessary. Most of the wall surface is covered with protective net. Initially designed for the experiments with flying robots this arena can be used in many other robotic applications. AR drone is available on site for experiments which is equipped with markers and with open source flight controller.

Key Features

- Recording and/or streaming data over the network
- Advanced software
- Fast response (latency
- High position accuracy (error
- Suitable for real-time applications

Possible Applications

- Virtual and augmented reality experiments
- Flying robots (drones) real-time position and orientation estimation
- Human or robotic movements recording and analysis

Access information

Corresponding infrastructure	École Polytechnique Fédérale de Lausanne Laboratory of Intelligent Systems
Location	Route Cantonale, 1015 Lausanne, Switzerland
Unit of access	Working day

Technical specifications

Number of tracked objects	Up to 50
Position error	
Frame rate	200 fps
Number of cameras	26 on 2 levels
Usable volume	10x10x5.5 m
Data streaming protocol	NatNet

Additional information

http://optitrack.com