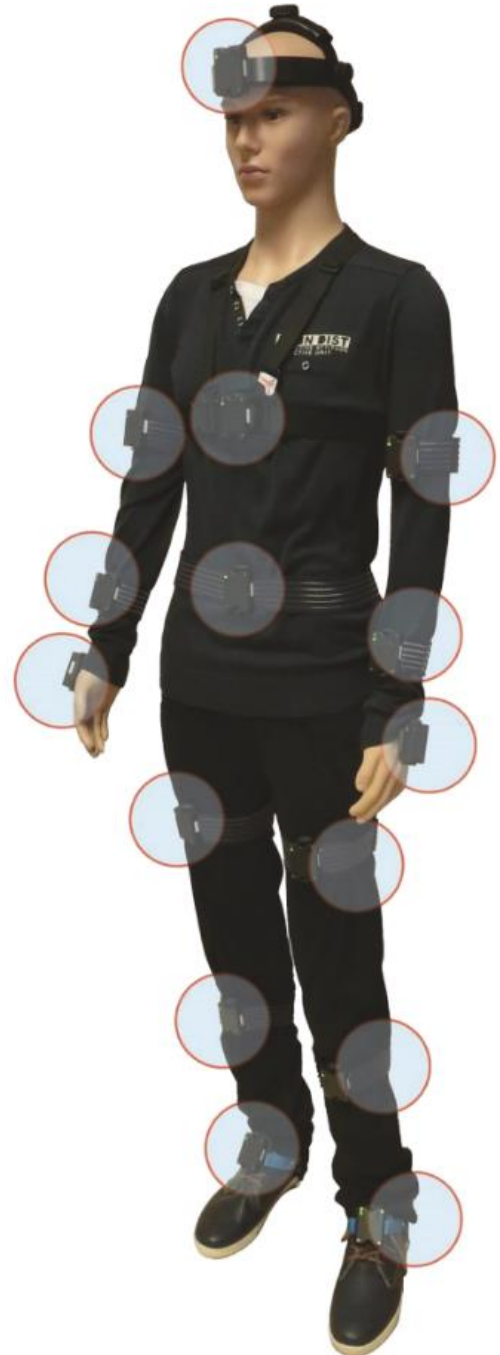
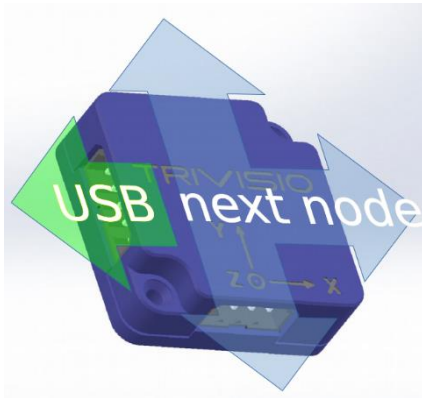


Light Motion Suite

- wireless full-body tracking -

1. Technical Characteristics

Light motion suit is the set of inertial measurement units (IMU), *nodes*. A node may perform function of a *gate* that is to be connected to USB, via its 5-pin connector. Each node may be connected up to 3 other nodes via 4-pin connectors. Maximum number of nodes connected to a gate is 10 (including internal node).



We offer to customers either *separate IMUs* or *wireless full-body tracking set* that consist of:

- Wearable PC, including:
 - IMU compartment
 - Internal battery
 - Wi-Fi router
 - Ubuntu Linus OS
- 15 IMUs
- Straps and cables

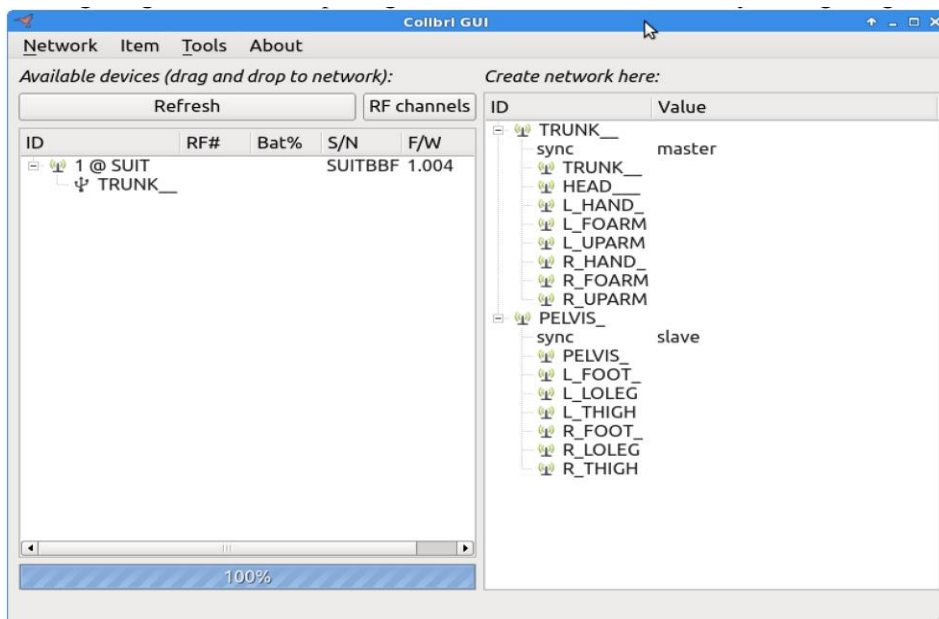


TRIVISIO Prototyping GmbH
Herzogenbuscher Strasse 14
54292 Trier
Germany

Tel: +49 (0) 651 – 699 880 28
Fax: +49 (0) 651 – 699 330 48
Email: info@trivisio.com
Web: www.trivisio.com

2. Software:

For separate IMUs *Colibri API* may be used. It's a cross-platform library for Windows, Mac OS X and Linux for configuring IMUs and acquiring data. It includes GUI for easy configuring:



For wireless set VRPN may be used. It's open source client/server software for transferring sensor data via network. Often motion capture software has a VRPN plug-in. VRPN server runs in the wearable PC. You must have VRPN client to get date. Run server from client PC:


```
suit_config -c <configuration file> -f <frequency>
suit_run
vrpn_orientation Colibri@192.168.8.1
```

Wireless set may be used also in data-logger mode, saving captured data to flash memory.

3. Technical Specifications

Sensor type:	3-DOF orientation, based on inertial and magnetic field sensors	
Gyroscope:	Scale: ± 2000 °/s	
Accelerometer:	Scale: ± 16 g	
Magnetic field sensor	May be disabled for industrial environments	
Orientation accuracy	Pitch/Roll: 1° Yaw: 2°	
Working frequency	260 Hz with 15 nodes (every node runs at this freq.), 500 Hz with only 1 node	
Dimensions (W/H/D)		
Sensor	30 mm x 10 mm x 30 mm	
Wearable-PC	TBD	
Connection type	USB (separate IMUs)	Wi-Fi (wireless set)
Latency	2 ms	5 ms
Power consumption	0.15 W	4 W (3-hours operation with internal battery)

Subject to technical modifications



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