



HAPTION

Virtuose 6D



The Virtuose 6D is a 6 degrees-of-freedom haptic device, specifically designed for work in Virtual Reality environments.

Thanks to its large workspace and its high forces, it enables a scale one interaction with digital models coming from CAD.

Its main applications are:

- ergonomic studies
- accessibility studies
- assembly simulation
- project review
- large interaction
- tele-operation
- Human gesture

## Technical characteristics

The VIRTUOSE 6D is the only force-feedback system of the market today, which offers the following characteristics:

- ✓ Force-feedback on all 6 degrees-of-freedom (3 translations and 3 rotations)
- ✓ Operational workspace corresponding to the movements of a human arm
- ✓ Length of the segments constituting the arm: 400 mm, 450 mm or 500 mm
- ✓ Maximum force between 34N and 42N (9,5N to 12N continuous), i.e. high enough to simulate the handling of heavy objects
- ✓ Maximum rotation torque of 3.1 or 5 Nm (1Nm or 1.4 Nm continuous), i.e. high enough for two-handed handling of large virtual objects
- ✓ Exact static compensation of the device's own weight
- ✓ Modular end-effector equipped with programmable switches
- ✓ Gripping tool equipped with a proximity sensor, connected to a "dead-man" function: as long as the user does not hold the gripping tool in his hand, and as soon as he releases it, the motors are switched off, and no active movement can occur
- ✓ Reduced weight, transportable without specific equipment
- ✓ Ethernet communication system
- ✓ Development kit (API) available for the major operating systems
- ✓ Demonstrated compatibility with the major software applications on the market today, using dedicated plug-ins: Vortex™, Havok™, ODE, 3DVIA Virtools™, Catia™ V5, Delmia™ V5, Solidworks, ESI/ICIDO, H3D, OpenMask, WorldViz Vizard, Classic Jack, etc...
- ✓ Compatibility with tracking system like ART, Vicon, Motion Analysis