

# VIRTUOSE 3D RV<sup>TM</sup>

The Virtuose 3D RV is a 6 degrees-of-freedom haptic device with 3 active force feedback translations.

The Virtuose 3D RV is specifically designed to interact in Virtual Reality environments. Thanks to its large workspace and high forces, it enables a scale one interaction with digital mock-up.

## # Research

## # Medical co-manipulation

**# Virtual Reality** 

## # Medical training & simulation

### **3** ACTIVE TRANSLATIONS + **3** PASSIVE ROTATIONS = **6** MEASUREMENTS

- Passive weight balancing
- Ethernet/UDP communication system
- Removable handle, equipped with 3 user buttons and a presence sensor
- ✔ Software interface:
  - ✓ Drivers (binary and/or source code) available for: Python<sup>™</sup> for IPSI<sup>™</sup>, ROS<sup>™</sup>, ROS<sup>™</sup>, CHAI3D<sup>™</sup>, ODE<sup>™</sup>, Matlab Simulink<sup>™</sup>, LabVIEW<sup>™</sup>
  - ✓ Dedicated plug-ins for: 3DExperience<sup>™</sup>, Catia<sup>™</sup> & Delmia<sup>™</sup> V5, Solidworks<sup>™</sup>
  - Solutions for Unity, UnReal, and other real-time interactive simulation platforms by our Partners : LS Group, Tree-C, TOIA Ltd, ...



#### MODULARITY

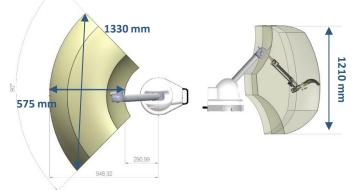
The end-effector is easy to remove and replace, with no tool, in order to customize the application and reinforce the sensation of immersion. The end-effector is equipped with three user push-buttons, one permit for instance to be used a shift feature to extend the workspace.

User push-buttons status are provided to the software interface.



The end effector orientation can be modified. The device can be configured in up-side-down position.

We are available to discuss with you any customized needs you have.



#### TECHNICAL

Translation workspace	1330 x 575 x 1020 mm
Rotation Workspace	330° x 120° x 270°
Payload (center of the workspace):	35 N (peak)/ 10 N (continuous)
Position resolution	0.016 mm
Rotation resolution	0.35 °
Device weight	12 kg
ELECTRICAL	
Power supply	100-240 VAC 50/60Hz single phase
Consumption	Average consumption 200W
	Max consumption: 540W
Software	
Maximum translation stiffness	2000 N/m
Update Rate	1000 Hz



Information in this document is subject to change without notice.

HAPTION S.A.S. 8 ZA Route de Laval – 53210 SOULGE SUR OUETTE – France Tel. +33(0)2 43 64 51 20 Email : contact@haption.com https://www.haption.com 2