



# VIRTUOSE 6D TAO™

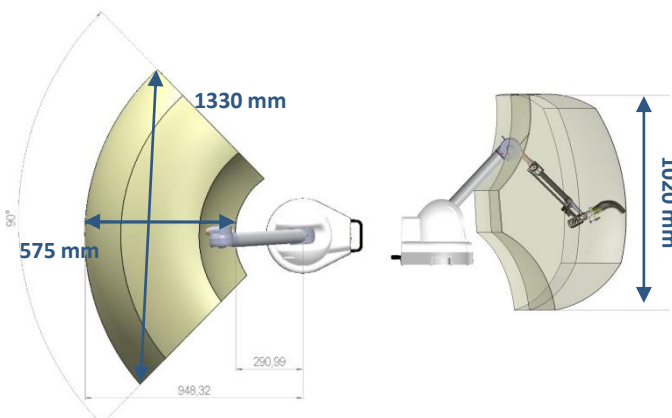
The Virtuose 6D TAO is a 6 active degrees-of-freedom haptic device with a passive gripper. Thanks to its large workspace, interaction capacities and EtherCAT interface, it enables and eases a slave robot control.



# Nuclear Teleoperation # Industrial Teleoperation

## 6 ACTIVE DEGREES-OF-FREEDOM – PASSIVE GRIPPER

- ✓ Passive weight balancing
- ✓ Ethernet or Ethercat communication system
- ✓ TREQ Handle (TeleRobotic Ergonomic Handle), designed for Master – Slave operations, including a presence sensor
- ✓ Button Box: 4 dedicated buttons with switch to freeze the pinch
- ✓ Reduced weight, allowing transportation without specific equipment
  - ✓ Haption TREQ teleRobotics Extender
  - ✓ Dedicated plug-ins for: 3DExperience™, Catia™ & Delmia™ V5, Solidworks™
  - ✓ Drivers (binary and/or source code) available for: Python™ for IPSI™, ROS™, ROS2™, CHAI3D™, ODE™, Matlab Simulink™, LabVIEW™
  - ✓ By Partner: Unity3D™ by LS Group, TOIA™ by Generic Robotics



## MODULARITY

The user holds the haptic device using a gripper or handle placed at the tip (called “end-effector”). The gripping tool is equipped with two buttons, one 3-position-button and a 7<sup>th</sup> DOF with a passive gripper. The button box is equipped with three buttons and three multiple-position buttons.



## 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)
Rotation force: Peak, Continuous	5 Nm , 1.4 Nm
Position resolution	0.013 mm
Rotation resolution	0.0018°
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
Maximum rotation stiffness	40 Nm/rad
Update Rate	1000 Hz

The Virtuose 6D RV, Virtuose 6D TAO and Virtuose 3D RV are also available upside-down. We are available to discuss with you any specific request for integration.

## HAPTION S.A.

8 ZA Route de Laval – 53210 SOULGE SUR OUETTE – France  
 Tel. +33(0)2 43 64 51 20 Fax. +33(0)2 43 64 51 21  
 Email : contact@haption.com <https://www.haption.com>