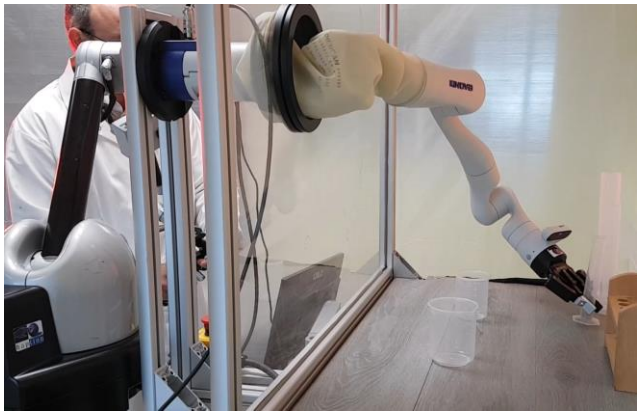
# VIRTUOSE 6D TAO™

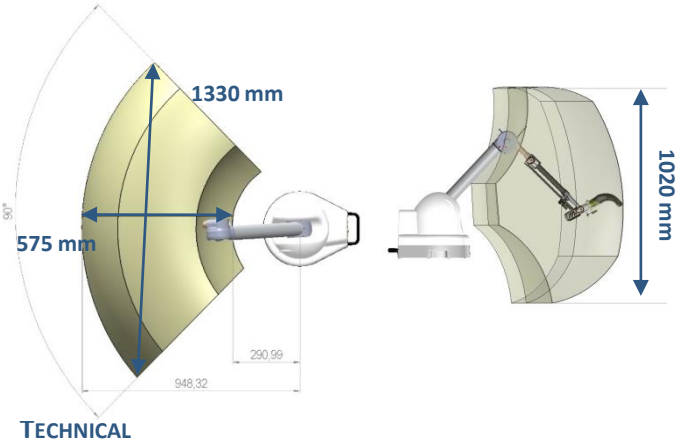
The Virtuose 6D TAO is a 6 active degrees-of-freedom haptic device with a passive gripper.
Thanks to its large workspace, interaction capacities and EtherCAT interface, it enables and eases a slave robot control.

**# Nuclear Teleoperation  # Industrial Teleoperation**

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

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






## MODULARITY

The user takes hold of 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 7th 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, Virtuose 6D TAO and Virtuose 3D 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