Desktop 3D™

The Desktop 3D is a compact haptic device with 3D active translations and 6 degrees-of-freedom measurements.
Its workspace and small footprint address it to an individual use, in front of a desktop screen, a head-mounted display (HMD) or inside a simulator.

 # Research

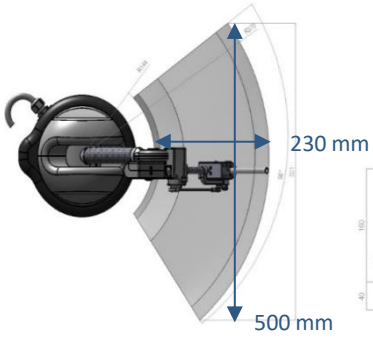
 # Medical teleoperation

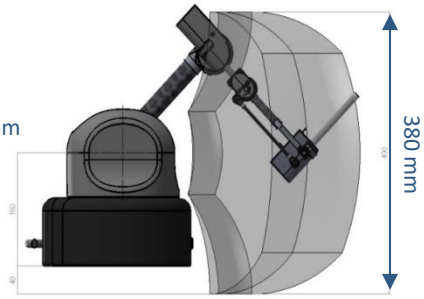
 # Virtual Reality

 # Medical training & simulation

3 Active Translations + 3 Passive Rotations = 6 measurements

- ✔ Passive weight balancing
- ✔ Ethernet/UDP communication system
- ✔ Removable end-effector, on request.
- ✔ Software interface:
  - ✔ Long term native drivers (binary) in C++ and C. Drivers availables for ROS2™, ROS™, CHAID3D™ open source platforms.
  - ✔ Can be used* with open source platforms (Godot™, Bullet™, SOFA™, ...) and with third parties platforms (UnReal™, Unity™, NVIDIA FleX™, LabVIEW™, Matlab™/Simulink™, TAO2000™, CORTEX™, XDE™...). (*No drivers/examples are supplied.)
  - ✔ Industrial solutions with third party solutions such as Unity™, UnReal™ by our Partners : LS Group, Tree-C, TOIA Ltd, …





Modularity

The device can also be configured in up-side-down position.

Near the end effector, a user button mounted on the body between axes 5 and 6 allows you to use an offset function to extend the workspace.

A small independent user buttons box, connected to the control unit, provides three user push-buttons, and one finger detection surface that can deactivate the force feedback when released.

User buttons status are provided to the software interface.

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

Technical

Translation workspace	500 x 230 x 380 mm
Rotation Workspace	320° x 119° x 360°
Payload (center of the workspace):	10 N (peak)/ 3 N (continuous)
Position resolution	0.0234 mm
Rotation resolution	0.35 °
Device weight	3.5 kg (+ its external controller 2,4kg)

Electrical

Power supply	100-240 VAC 50/60Hz single phase
Consumption	Less than 350W

Software

Maximum translation stiffness	1 000 N/m
Update Rate	1 000 Hz

Information in this document is subject to change without notice.

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