



HAPTION

→ **Virtuose 6D Desktop**

The **Virtuose 6D Desktop** is a haptic device specifically designed for **bidirectional interactivity with virtual 3D application**. It provides **6 degrees-of-freedom (DOF) with force-feedback**.

Its **workspace and its small overall dimensions** intend it for a use on **individual workstations, equipped with a standard monitor**.



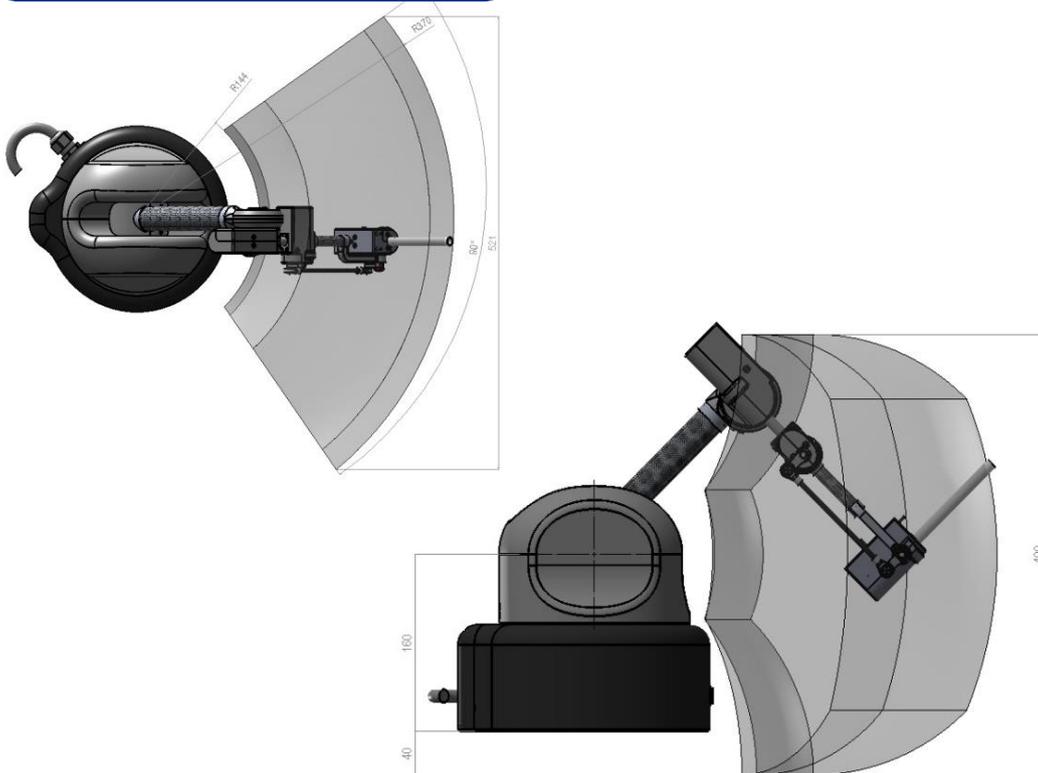
## Technicals Characteristics

The main characteristics of the Virtuose 6D Desktop are :

- ✓ 6 degrees of freedom position feedback
- ✓ 6 degrees of freedom active force-feedback
- ✓ Operational workspace corresponding to the movements of the lower arm pivoting around the elbow: 521 x 370 x 400 mm and 270° x 120° x 250°
- ✓ Continuous translation force of 3 N (Maximum 10N)
- ✓ Continuous rotation torque of 0.2 Nm (Maximum 0.8 Nm)
- ✓ Passive weight balancing with springs
- ✓ Lightweight, no specific equipment needed for transport
- ✓ Support of both impedance (force) and admittance (position) control
- ✓ Development kit (API) available for Microsoft Windows and Linux (32 and 64 bits)
- ✓ Communication through Ethernet/UDP
- ✓ Tool fixation through a standard M8 connector for easy customization

# → Virtuose 6D Desktop

## workspace



The Virtuose 6D Desktop is composed of three articulated branches, attached in serial to the grasping tool, which give a 6 degrees-of-freedom kinematics, with forcefeedback available in all degrees-of-freedom. The structure of the Virtuose 6D Desktop makes it possible to work in a volume of 521 x 370 x 400 mm. The resolution in position is of 0.01 mm.

## Characteristics

Number of motors	6
Type of motors	DC
Output power of the motors	60W in 48V
Power supply	100-240 VAC one-phase
Power consumption	Less than 200W
Translation force: Peak, Continuous	3 N, 10 N
Rotation force: Peak, Continuous	0.2 Nm, 0.8 Nm
Maximum control stiffness (translation)	1000 N/m
Maximum control stiffness (rotation)	4Nm/rad
Apparent inertia	350 g
Weight of the haptic arm	3.6 kg
Weight of the power supply	2.1 kg

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