

force dimension

omega.3 haptic device

force feedback interface



The **omega.3** relies on a unique kinematic design that has been optimized for high-end force feedback. Its **high mechanical stiffness**, combined with its embedded **fast USB 2.0 controller**, enables the rendering of **crisp contact forces**. Conceived and manufactured in Switzerland, the **omega.3** is specifically designed for demanding applications where **performance and reliability** are critical.

applications

The **omega.3** provides 3D active force feedback and is used in a wide range of applications, including:

- › medical and space robotics
- › micro and nano manipulators
- › teleoperation consoles
- › virtual simulations
- › training systems
- › research



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omega.3

workspace	translation	Ø 160 mm x L 110 mm
forces	continuous	12.0 N
resolution	linear	0.01 mm
stiffness	closed loop	14.5 N/mm
dimensions	height	270 mm
	width	300 mm
	depth	350 mm

electronics

interface	standard	USB 2.0
power	universal	110V - 240V

software

platforms	Microsoft	Windows XP / Vista / 7
	Linux	kernel 2.4 / 2.6
	Apple	OS X 10.5 / 10.6
	QNX	Neutrino 6.3 / 6.4 / 6.5
	Tenasys	INtime 4.0
SDK	DHD-API	haptic software library
	DRD-API	robotic software library

features

structure	delta-based parallel kinematics
calibration	automatic, driftless
user input	1 programmable button
safety	velocity monitoring
	electromagnetic damping

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