

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 x 110 mm
forces	translation	12.0 N
resolution	translation	< 0.01 mm
stiffness	closed-loop	14.5 N/mm

electronics

interface	standard	USB 2.0
	refresh rate	up to 8 KHz
power	universal	110V - 240V

software

platforms	Microsoft	Windows XP / Vista / 7 / 8 Windows CE 7
	Linux	kernel 2.6 / 3.x
	Apple	OS X 10.7 / 10.8
	QNX	Neutrino 6.5
	WindRiver	VxWorks 6.3 / 6.9
software	haptic SDK	
	robotic SDK	

features

structure	delta-based parallel kinematics active gravity compensation
calibration	automatic driftless
user input	1 programmable button
safety	velocity monitoring electromagnetic damping
option	right- or left-handed

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