

force dimension

omega.6 haptic device

force feedback interface



The **omega.6** is the most advanced pen-shaped force-feedback device available. Building on the omega.3 base, its design provides **perfect decoupling** of translations and rotations. The combination of **full gravity compensation** and **driftless calibration** contributes to greater user comfort and accuracy. Conceived and manufactured in Switzerland, the omega.6 is designed for demanding applications where **performance and reliability** are critical.

applications

The **omega.6** provides 3D active force feedback and passive rotation sensing for a wide range of applications:

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



force dimension

omega.6

workspace	translation	∅ 160 x 110 mm
	rotation	240 x 140 x 320 deg
forces	translation	12.0 N
resolution	translation	< 0.01 mm
	rotation	0.09 deg
stiffness	closed-loop	14.5 N/mm

electronics

interface	standard	USB 2.0
	refresh rate	up to 4 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
	QNX	6.5 / 6.6
	WindRiver	VxWorks 6.3 / 6.8 / 6.9
software	haptic SDK	
	robotic SDK	

features

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

Force Dimension
Route de Saint-Cergue 295
CH - 1260 Nyon
Switzerland

t +41 22 362 6570
f +41 22 362 6571

www.forcedimension.com
info@forcedimension.com