

# 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



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## omega.6

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

## electronics

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

## software

<b>platforms</b>	Microsoft	Windows XP / Vista / 7
	Linux	kernel 2.6
	Apple	OS X 10.5 / 10.6
	QNX	Neutrino 6.3 / 6.4 / 6.5
	tenAsys	INtime 4.0
<b>software</b>	haptic SDK	
	robotic SDK	

## features

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

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