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

force
dimension

omega.3

workspace	translation	∅ 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 4 KHz
power	universal	110V - 240V

software

platforms	Microsoft	Windows
	Linux	all distributions
	Apple	macOS
	Blackberry	QNX
	WindRiver	VxWorks
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