

# force dimension

## delta.6 haptic device

force feedback interface



The **delta.6** is a high performance force feedback interface based on the delta manipulator. It offers 6 active degrees-of-freedom in translation and rotation and offers a **larger workspace** than omega.x devices. Thanks to its unique parallel mechanical design, the **delta.6** can convey **large continuous forces and torques** anywhere in its workspace.

### applications

The **delta.6** device provides 6DOF (active force and torque) 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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## delta.6

<b>workspace</b>	translation	Ø 400 x 260 mm
	rotation	± 22 deg
<b>forces</b>	translation	20.0 N
	rotation	150 mNm
<b>resolution</b>	translation	0.02 mm
	rotation	< 0.04 deg

## electronics

<b>interface</b>	standard	USB 2.0
	refresh rate	up to 4 KHz
<b>power</b>	universal	110V - 240V

## software

<b>platforms</b>	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
<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 haptic programmable button
<b>safety</b>	velocity monitoring
	electromagnetic damping
<b>option</b>	right- or left-handed

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