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
omega.6
workspace translation \( \varnothing 160 \times 110 \text{ mm} \)
rotation 240 x 140 x 320 deg
forces translation 12.0 N
resolution translation \(< 0.01 \text{ mm}\)
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
Linux all distributions
Apple macOS
Blackberry QNX
WindRiver VxWorks
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