

Butterfly Haptics



Magnetic Levitation Haptic Interfaces



Highest Bandwidth and Resolution

6 or 7 Degrees of Freedom

Comfortable Motion Range

Magnetic levitation haptic devices allow users to interact with computed environments by manipulating a handle that is levitated by magnetic means. Users can translate and rotate the handle while feeling forces and torques from the virtual environment. The motors, encoders, linkages, gears, belts, cables, and bearings of traditional haptic devices are simply dispensed with in favor of a direct electrodynamic connection to the handle held by the user.

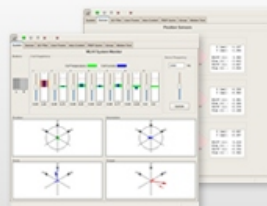
- * Single moving part with 6 degrees of freedom
- * Zero static friction
- * Zero mechanical backlash
- * High position and force bandwidths
- * High position resolution
- * Very wide range of stiffnesses
- * Mechanical simplicity, no tight tolerances

Visual-Haptic Workstations

Tables
Handles
Accessories



Structured API and Graphical Monitor



Research and Advanced Applications

