



Specifications for the PHANTOM® Premium 1.0/6DOF haptic device

The PHANTOM Premium 1.0/6DOF haptic device

Force Feedback Workspace	Translational	5 x 7 x 10 in 13 x 18 x 25 cm
	Rotational: Yaw Pitch Roll	335 degrees (5.847 radians) 260 degrees (4.538 radians) 335 degrees (5.847 radians)
Footprint	13 W x 10 L in (330.20 W x 254 L mm)	
Weight (device only)	20 lb (8.93 Kg)	
Range of motion	Lower arm movement pivoting at elbow	
Nominal position resolution	Translational	860 dpi (0.03 mm)
	Rotational, yaw & pitch	0.0023 degrees (0.00004 radians)
	Rotational, roll	0.0080 degrees (0.00014 radians)
Backdrive friction x, y, z	< 0.15 oz (0.04 N)	
Maximum exertable force at nominal (orthogonal arms) position and torque	Translational	1.9 lbf. (8.5 N)
	Rotational yaw & pitch	73 oz-in (515 mNm)
	Rotational roll	24 oz-in (170 mNm)
Continuous exertable force (24 hrs.) and torque	Translational	0.3 lbf. (1.4 N)
	Rotational yaw & pitch	27 oz-in (188 mNm)
	Rotational roll	7 oz-in (48 mNm)
Stiffness	20 lb/in (3.5 N/mm)	
Inertia (Apparent mass at tip)	< 0.30 lbm. (136 g)	
Force feedback	x, y, z, Tx, Ty, Tz	
Position sensing	x, y, z, pitch, roll, yaw (digital encoders)	
Interface	Parallel port	
Supported Platforms	Intel-based PCs	
GHOST® SDK Compatibility	Yes	
3D Touch™ SDK Compatibility	Yes	