



SPECIFICATIONS COMPARISON FOR THE PHANTOM® PREMIUM 1.5/6DOF & 1.5 HIGH FORCE/6DOF HAPTIC DEVICES



	PHANTOM Premium 1.5/6DOF		PHANTOM Premium 1.5 High Force/6DOF	
Workspace	Translational	15 W x 10.5 H x 7.5 D inches 381 W x 267 H x 191 D mm	Translational	15 W x 10.5 H x 7.5 D inches 381 W x 267 H x 191 D mm
	Rotational		Rotational	
	Yaw	297 degrees / 5.18 radians	Yaw	297 degrees / 5.18 radians
	Pitch	260 degrees / 4.54 radians	Pitch	260 degrees / 4.54 radians
	Roll	335 degrees / 5.85 radians	Roll	335 degrees / 5.85 radians
Footprint	13 W x 10 D inches / 330 W x 254 D mm		13 W x 10 D inches / 330 W x 254 D mm	
Range of motion	Lower arm movement pivoting at elbow		Lower arm movement pivoting at elbow	
Nominal position resolution	Translational	860 dpi / 0.03mm	Translational	3784 dpi / 0.007 mm
	Rotational		Rotational	
	Yaw & Pitch	0.0023 degrees 0.00004 radians	Yaw & Pitch	0.0023 degrees 0.00004 radians
	Roll	0.0080 degrees 0.00014 radians	Roll	0.0080 degrees 0.00014 radians
Backdrive friction (x, y, z)	0.15 oz / 0.04 N		0.75 oz / 0.2 N	
Maximum exertable force and torque at nominal position (orthogonal arms)	Translational	1.9 lbf / 8.5 N	Translational	8.4lbf / 37.5N
	Rotational		Rotational	
	Yaw & Pitch	73 oz-in / 515 mNm	Yaw & Pitch	73 oz-in / 515 mNm
	Roll	24 oz-in / 170 mNm	Roll	24 oz-in / 170 mNm
Continuous exertable force and torque at nominal position (orthogonal arms)	Translational	0.3 lbf / 1.4 N	Translational	1.4 lbf / 6.2N
	Rotational		Rotational	
	Yaw & Pitch	27 oz-in / 188 mNm	Yaw & Pitch	27 oz-in / 188 mNm
	Roll	7 oz-in / 48 mNm	Roll	7 oz-in / 48 mNm
Stiffness	20 lbf in ⁻¹ 3.5 N mm ⁻¹		20 lbf in ⁻¹ 3.5 N mm ⁻¹	
Inertia (apparent mass at tip)	< 0.30 lbm < 136 g		< 0.46 lbm < 210 g	
Weight (device only)	~ 20 lb ~ 9 Kg		~ 20 lb ~ 9 Kg	
Force feedback	x, y, z, Tx, Ty, Tz		x, y, z, Tx, Ty, Tz	
Position sensing	x, y, z, roll, pitch, yaw		x, y, z, roll, pitch, yaw	
Interface	Parallel port		Parallel port	
Supported Platforms	Intel-based PCs		Intel-based PCs	
GHOST® SDK Compatibility	Yes		Upon special request	
OpenHaptics™ Toolkit Compatibility	Yes		Yes	