



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 Yaw Pitch Roll	297 degrees / 5.18 radians 260 degrees / 4.54 radians 335 degrees / 5.85 radians	Rotational Yaw Pitch Roll	297 degrees / 5.18 radians 260 degrees / 4.54 radians 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 Yaw & Pitch	0.0023 degrees 0.00004 radians	Rotational 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 Yaw & Pitch Roll	73 oz-in / 515 mNm 24 oz-in / 170 mNm	Rotational Yaw & Pitch Roll	73 oz-in / 515 mNm 24 oz-in / 170 mNm
	Translational	0.3 lbf / 1.4 N	Translational	1.4 lbf / 6.2N
Continuous exertable force and torque at nominal position (orthogonal arms)	Rotational Yaw & Pitch Roll	27 oz-in / 188 mNm 7 oz-in / 48 mNm	Rotational Yaw & Pitch Roll	27 oz-in / 188 mNm 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	
OpenHaptics® Toolkit compatibility	Yes		Yes	

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