

## COMPARISON OF HOTAS CAPABILITIES

Manufacturer		CH Products	Logitech	Saitek	Saitek	Thrustmaster	Thrustmaster	
Product		Fighterstick / Pro Throttle	Flight System G940	X-52 Pro Flight	X-65F Pro Flight	HOTAS Cougar	HOTAS Warthog	
<b>Hardware</b>	<b>Joystick Mechanism</b>	Independent X/Y gimbals	gear-tensioned force feedback	dual coil spring	force-sensing	Independent X/Y gimbals	single helical spring	
	<b>Throttles</b>	1	2	1	2	1	2	
	<b>Rotaries</b>	1 on stick base	3 on stick base, 2 on throttle	2 on throttle (plus slider)	2 on throttle	2	1	
	<b>Total Axes</b>	6	14	7	7	10	7	
<b>Software</b>	<b>Simple Programming</b>	shift button?	YES	YES	YES	YES	YES	
		layer/mode control	3 or 4 layers	3 layers	3 layers	3 layers	4 layers	3 layers
	<b>Axis Manipulation</b>	Axes can be swapped out-of-game?	YES	only on same controller	NO (except for mini-mouse)	NO (except for mini-mouse)	YES	YES
		Axes can be swapped on-the-fly?	YES	NO	NO	NO	YES	YES
		Appropriate deadzone adjustment for centerpoint axes?	YES	YES	YES	YES	YES	YES
		Appropriate deadzone adjustment for bottompoint axes?	YES	NO	NO	NO	YES	YES
		Linearity adjustment for centerpoint axes?	YES	YES	NO	X/Y/Rudder only	YES	YES
		Linearity adjustment for bottompoint axes?	YES	NO	NO	NO	YES	YES
		Sensitivity adjustment?	YES	NO	NO	NO	YES	YES
		Appropriate adjustments for throttle detents?	n/a	NO	NO	NO	YES	YES
	<b>Controller Virtualization</b>	8+ controller axes can be mapped to up to 8 virtual controller axes?	YES	NO	NO (but only has 7 axes)	NO (but only has 7 axes)	YES	YES
		Programming software can create more than one virtual controller?	YES	n/a	n/a	n/a	n/a	NO
	<b>Advanced Programming</b>	Axes can be programmed digitally?	YES	YES	YES	YES	YES	YES
		different short/long commands on a single button?	YES	NO	NO	NO	YES	YES
		Programming software can do math?	YES	NO	NO	NO	YES	YES
	<b>Documentation</b>	Programming software includes a keytester?	YES	NO	YES	YES	YES	YES
		Programming software includes button tester?	YES	NO	YES	YES	YES	YES
		Programming software includes an axis tester?	YES	NO	YES	YES	YES	YES
		Help files/examples are included with software?	YES	NO	YES	YES	YES	YES