

Combat Fighter Jet System

Controls Reference | v1.0

Keyboard & Mouse Controls

Action	Key / Input	Notes
Pitch	W / S	Nose up / down
Roll	A / D	Bank left / right
Yaw	Q / E	Rudder left / right
Thrust	Left Shift	Hold to accelerate
Brake	Left Ctrl	Hold to decelerate
Fire	Left Mouse Button	Primary weapon
Handbrake	Space	Emergency brake
Gear	G	Toggle landing gear
Change Target	R	Cycle to next target
Look Around	Mouse (XY)	Free-look camera

Gamepad Controls (Xbox / PS5 / Switch Pro)

★ = changed from default keyboard mapping

Action	Keyboard	Gamepad	★	Notes
Pitch	W / S	Left Stick ↑↓		Analog — smooth control
Roll	A / D	Left Stick ←→		Shared stick, mirrors real joystick
Yaw	Q / E	LB / RB	★	Symmetric shoulder buttons
Thrust	Left Shift	RT (Right Trigger)		Analog — push deep for full throttle
Brake	Left Ctrl	LT (Left Trigger)		Mirrors RT, intuitive pairing
Fire	Left Mouse	X Button	★	Moved here after LB/RB → Yaw
Handbrake	Space	B Button	★	Moved here after LB → Yaw
Gear	G	A Button		Most natural thumb position
Change Target	R	Y Button		Above A, unlikely to mispress
Look Around	Mouse (XY)	Right Stick XY	★	Full analog freelook X=pan Y=tilt

Design Notes

► Left Stick — Pitch & Roll

Both axes share the left stick, mimicking a real fighter jet joystick. Analog input allows precise, gradual adjustments at any deflection level.

► **LB / RB — Yaw**

Assigning yaw to the shoulder buttons frees both sticks for flight control and camera. The symmetric layout makes left/right yaw equally intuitive.

► **RT / LT — Thrust & Brake**

Analog triggers give proportional throttle and braking. Partial presses yield partial thrust — ideal for fine speed management.

► **Right Stick — Look Around**

Full analog freelook on the right stick. X-axis pans left/right; Y-axis tilts up/down. Implemented via UE5 Enhanced Input with a Swizzle YXZ modifier on the Y-axis binding.

► **Controller Compatibility**

Tested with Xbox (XInput native), PS5 DualSense (via DS4Windows), and Switch Pro Controller (via BetterJoy). Switch Pro ZL/ZR are digital; map to Gamepad Left/Right Shoulder in IMC as fallback.