VR Drone Training Simulator

CAPABILITY SHEET · VIRTUAL-REALITY FPV, MULTIROTOR & LOITERING-MUNITION OPERATOR TRAINING · ENGINE

THE ONE IDEA

PRINCIPLE	The only flight you can repeat is a simulated one. A pilot is built by repetition, and real aircraft ration it: a crashed quad is rebuilt, a fibre-guided sortie spends a spool, a loitering aircraft flies once.
METHOD	Build the skill in the headset, confirm it on the range, and come back to the simulator to fix whatever the range exposed.

WHY VR - AND WHAT STAYS REAL

VIRTUAL RANGE	A monitor draws every object at the same distance from the eye. A head-tracked headset puts the pilot in the field, reading the aircraft's distance and orientation as outdoors; for FPV the headset becomes the goggles.
THE STICKS	The pilot's real hand controller, not VR hand controllers built for pointing and grabbing; a passthrough view shows the sticks without lifting the headset.
TWO CLOCKS	The view follows the head at once, at a high and steady frame rate, or trainees get sick. The drone's picture arrives with the real link's delay, or they learn the wrong timing. Both are measured end to end.

THE AIRCRAFT & THE WORLD

FLIGHT MODEL	Built per airframe and checked against flight logs replayed with the same inputs. Optional hardware-in-the-loop runs the aircraft's own flight controller.
LINK & SENSORS	Radio range and dropouts; fibre spool length, payout, tension, snag and break; camera and thermal pictures no better than the real ones; terrain, weather and altitude.

INSTRUCTOR, COMFORT & SETTINGS

LESSON	Scenario authoring; every headset mirrored; faults injected live; freeze and reset; every flight and head movement recorded, replayed and scored.
COMFORT	Short sessions with breaks, a stable horizon, adjustable lens spacing, replaceable face covers, and marked floor space for standing practice.
SETTINGS	VR classroom with instructor station; rugged VR field kit; ground-station mode for operators who fly by map and screen - one lesson library.

SCOPE & STATUS

CIVIL USE	Supports training organisations running simulated flight training alongside live flying; no certification is claimed on the regulator's behalf.
BOUNDARY	Trains flying, navigation and sensor handling. What an aircraft carries is outside its scope.
STATUS	Neometrix engineers VR drone training simulators to order, for multirotor, FPV and loitering-munition operators, from a single VR trainee station to a multi-seat VR classroom with an instructor station, and no delivered drone training simulator is claimed.

DEFENCE PROGRAMMES DESK

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