

UVS FPV Scanner

A hands-off scanner for analogue FPV video transmitters: it finds one, retunes to it and shows the picture on an HDMI monitor.

■ KEY FEATURES

- Hands-off from power-on: finds the radio, sweeps, locks onto a transmitter, shows the picture and brings it back by itself after a short dropout
- Colour analogue NTSC and PAL video straight from the SDR
- The whole 70–6000 MHz range by default, not just standard FPV channels; custom presets of up to 8 bands
- Two radios with automatic failover: LibreSDR as the main radio, HackRF One as the backup
- Picture, spectrum, waterfall and a list of found transmitters with signal levels on one screen; switch with a double-click
- Interface in Ukrainian and English, night and day themes, illustrated guides in Ukrainian

■ SPECIFICATIONS

Type	Scanner for analogue FPV video transmitters (software)
Compute platform	Raspberry Pi 5; micro-HDMI output to an HDMI monitor
Main radio	LibreSDR over Ethernet; antenna on the RX2A port
Backup radio (optional)	HackRF One over USB, with or without a PortaPack screen (a PortaPack must be switched to HackRF mode after each power-on)
Sweep range	70–6000 MHz (LibreSDR) · 1–6000 MHz (HackRF One)
Band presets	1.2/1.3 · 2.4 · 3.3 · 5.8 GHz, full range; custom — up to 8 bands
Video	Analogue NTSC or PAL, colour or black-and-white; no audio
Frame rate	Economy mode (default): 25/30 fps; 50/60 fps with it off
Sample rate (viewing)	15.36 MS/s default
Detection threshold / search gain	8 dB above noise default / 30 dB (LibreSDR), 50 dB (HackRF)
Radio failover	To HackRF within ~30 s; back to LibreSDR within ~1.5 min
Power	Raspberry Pi 5: USB-C 5.1 V / 5 A (27 W); LibreSDR: USB-C 5 V, 2 A min
Controls	USB mouse (choose transmitter, preset, radio); USB keyboard only for preset names and frequencies
Interface / status	Ukrainian · English; night and day themes / Beta 0.91

■ COMPOSITION

Supplied: a microSD image for the Raspberry Pi 5 (UVS-FPV-Scanner-0.91-Pi5), a microSD image for the LibreSDR (UVS-LibreSDR-3.3), and the illustrated guides 'How to write the memory card' and 'How to use the scanner'. User's hardware: Raspberry Pi 5 with power supply, LibreSDR with antenna and power supply, Ethernet cable, HDMI monitor and micro-HDMI cable, USB mouse, two microSD cards of 4 GB or more; optionally a HackRF One with antenna and USB cable.

■ INTERFACES

Raspberry Pi 5 ↔ LibreSDR: Ethernet; Raspberry Pi 5 → monitor: micro-HDMI/HDMI; HackRF One: USB; mouse and keyboard: USB; LibreSDR antenna: RX2A port; Raspberry Pi 5 and LibreSDR power: USB-C.

AVAILABILITY Free, as is, without warranty or support obligation; the application is closed-source (the image also contains open-source components under their own licences). Images at uvsdynamics.com/en/products/uv-fpv-scanner from 1 November 2026.