

HeraSight LR

Why HeraSight LR?

The Sony ILX-LR1 sets the benchmark for high-resolution aerial mapping. But drone operators are demanding more – continuous 4K recording, instant geo-tagging, real-time validation, AI insights, sharper focus, infrared vision, laser-precise geolocation, and mission-ready workflows.

HeraSight LR delivers exactly that.






Built by Real-time Robotics, **HeraSight LR is the world's first AI-powered upgrade to the LR1 with integrated IR and LRF capabilities.** It transforms the LR1 into the ultimate aerial inspection and mapping tool, giving drone professionals:

1. **Dual RGB + Thermal capture in a single flight**
2. **Instant geo-tagging of every image and video**
3. **Continuous 4K video recording**
4. **Real-time validation of coverage and clarity – no re-flights**
5. **AI insights at the edge for faster decisions**
6. **Lower operational costs through fewer flights and zero wasted time**
7. **No post-processing delays – data is mission-ready the moment you land**

HeraSight LR – Because every mission deserves complete, flawless data.

Contact Us Today!

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HeraSight LR Features

1. RGB Camera

Sony ILX-LR1 full frame, 61M pixels

2. Thermal Camera

FLIR Boson + 640x512

4. AI Computer

Built-in Nvidia Jetson Xavier NX

6. Simultaneous video recording and still image capturing

Simultaneously records video and captures still images from both EO and IR cameras, enabling up to four concurrent tasks—filming and photographing from each camera

8. Object Tracking & AI Recognition

Real-time 30 fps tracking/detection with memory; supports custom AI models

10. Laser-Assisted Autofocus

Uses distance data from the laser range finder (LRF) to precisely adjust camera focus for crystal-clear imaging

12. Smart Waypoints

Pre-set capture timing, gimbal angles, and settings per waypoint; supports up to three independent LR1 payloads

14. Smart Presets

Save and recall custom profiles (lens, focus, ISO, shutter) to streamline setup

16. Multi-camera synchronization

Synchronously control up to three HeraSight LR1s

3. Laser Rangefinder

3000 meter-range laser rangefinder

5. Live Geo-tagging

Instant live geo-tagging of RGB, 4K, and thermal images with .SRT metadata (camera, gimbal, GPS), stored on detachable SSDs up to 500GB

7. Video Recording

Unlimited 4K video – continuous corridor or site inspections without interruption

9. Tap-To-Center

The operator can point the HeraSight LR1 at the target simply by tapping the target on the screen

11. Live Mission Assurance

Continuous in-flight preview ensures data quality before landing

13. Full Control Access

Full access to all LR1 and FLIR Boson settings from the ground station

15. Flexible Video Streaming

Supports RTSP, UDP and RTMP protocols

17. Target Positioning

Overlay coordinates on video and map

HeraSight LR Specifications

GENERAL

Payload Weight	965+ -20g (2.13 lbs) no lens
Payload Dimensions (DxWxH)	155mm x 165mm x 170mm (5.67 x 4.37 x 7.01 inch)
Quick release	RTR QR/General purposed QR/DJI QR
AI Performance	NVIDIA Jetson Xavier NX 16GB
Damping	RTR Damping
Input Voltage	12V
Storage Temperature	50°C to -30 °C
Operating Temperature	45°C to -20 °C
Payload Control Method	UART Ethernet SBUS
Supported Drone Platforms	Pixhawk/CubePilot/Skynode/DJI
Supported Autopilot Platforms	Ardupilot/PX4/DJI
Supported Controllers	HeraLink or third-party controllers supporting Ethernet, running Linux, Android
SDK	HeraSight LR1 SDK
NDAA Compliance	Yes

THERMAL CAMERA

Sensor	Flir Boson+
Array Format	640x512
Frame Rate	60Hz
Pixel Size	12 µm
Thermal Spectral Range	8-14 µm
Radiometric	Supported Options
Scene Temperature Range	to 140 °C (high gain)
Lens Options	Fixed Focus, 32° (HFOV) 14 mm (EFL) Interchangeable lens
Digital Zoom	1x to 8x zoom
Color Palette	Yes (White Hot, Rainbow, Ironbow, Arcitc, Gradedfire, Black Hot, Rainbow HC, Globow, Lava, Hottest)
Resolution	Photo: 640x512 Video: 640x512 @ 30Hz, 60Hz
Format	Photo: JPEG Video: MP4, H265
Thermal Sensitivity (NETD)	Professional: ≤20 mK
FFC	Auto/Manual

HeraSight LR Specifications

EO CAMERA - Sony ILX-LR1

Image Sensor	35mm full frame (35.7 x 23.8 mm), Exmor R CMOS sensor
Effective Pixels	Still images: Approx. 61.0 MP Movies: Approx. 50.8 MP
Lens	FE 24mm F2.8G, FE40mm F2.5G, FE 50mm F2.5G, FE 35 mm F2.8 ZA, FE 28 mm F2.0, FE 55mm F1.8 ZA
Zoom	Digital Zoom: Still Images: Approximately 2x Movies: Approximately 1.5x for 4K and 2x for HD Optical Zoom: Varies depending on the lens used.
Resolution	Still images: L: 9504 x 6336 (60 M), M: 6240 x 4160 (26 M), S: 4752 x 3168 (15 M) Movies: 3840 x 2160 (4K), 1920 x 1080 (HD)
Format	Still images: JPEG, HEIF, RAW. Movies: MPEG-4 AVC/H.264, MPEG-H HEVC/H.265
ISO sensitivity	Still images: ISO 100 - 32000 (expandable to ISO 50 - 102400), AUTO (ISO 100 - 12800, selectable lower limit and upper limit) Movies: ISO 100 - 32000 equivalent, AUTO (ISO 100- 12800, selectable lower limit and upper limit)
Shutter Speed	Still images (Mechanical shutter): 1/4000 to 30 s Still images (Electronic shutter): 1/8000 to 30 s Movies: 1/8000 to 1 s
Exposure compensation	5.0 EV (1/3 EV, 1/2 EV steps selectable)
Colour temperature range	2500 K - 9900 K
Exposure mode	Manual, Auto, AperturePriority, ShutterSpeedPriority, ...
Focus mode	Manual Focus, Automatic AF
White balance mode	AWB, Underwater Auto, Daylight, Shade, Cloudy, Incandescent, Fluorescent,...
Camera SDK	Sony Camera Remote SDK (CRSDK)
Data Transmission	Yes (SuperSpeed USB 5 Gbps (USB 3.2) compatible)

LASER RANGEFINDER

Ranging Capability (m)	Max 3000m
Performance Continuous measure mode	Single, 1HZ, 4HZ, 10HZ
Precision (m)	Maximum 0.5m
Laser Safety	EN60825 Class 1

STORAGE

Detachable SSD Storage	Detachable RTR SSD up to 500GB
Supported File Systems	exFAT



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