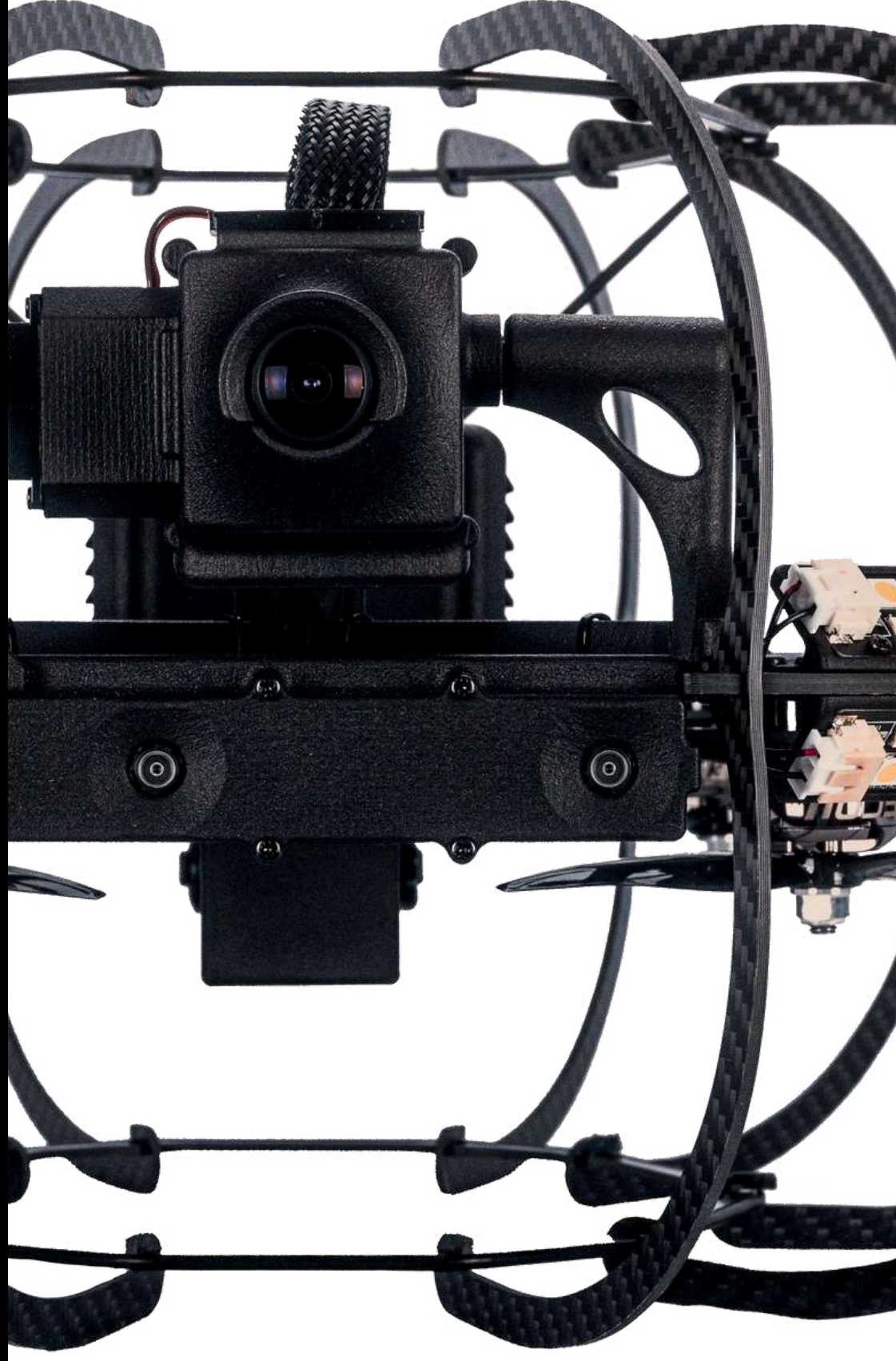
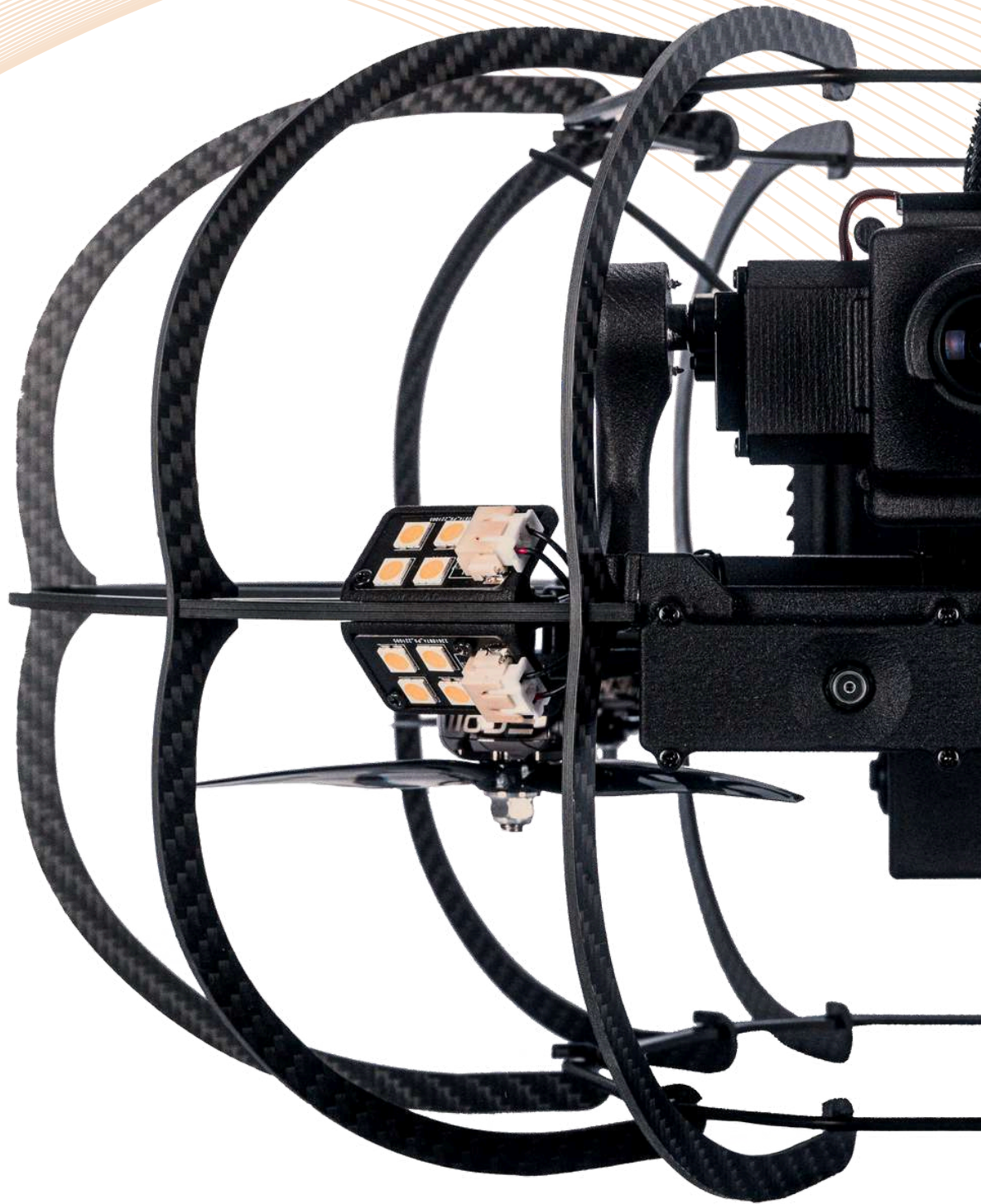




Stereo 2





Agility in confined spaces

- Small diameter (39cm)
- Powerful lighting system (10k lumens)
- Improved vision through steam and dust
- Robust radio and video link

Without GPS, flying made easy

- Stereoscopic camera stabilization
- Odometry



Improving flight safety

- Protective cage
- Collision-tolerant behaviour

Facilitating data collection

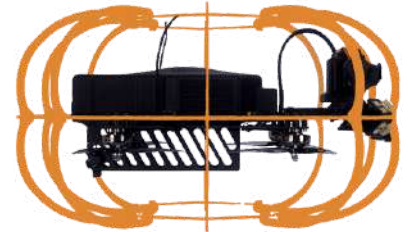
- 4k photo - Video
- Real-time 1080p video feedback
- 180° rotating camera
- Access to flight logs

A DRONE FOR CONFINED SPACES

Protective cage

Allows contact with walls without risk for the machine.

In a confined environment, avoiding all contact is an illusion. You need to be able to bounce off surfaces and continue the inspection.



Small size

A small-diameter drone is more agile when it comes to manoeuvring and positioning itself in narrow environments. What's more, with a diameter of less than 40cm, the Stereo2 can fly through most manholes.

Optical stabilization

Optical stabilisation is currently the only way to compensate for the absence of a GPS signal in confined environments.

The Stereo2 is also capable of recording its movements in real time for the pilot, and then reproducing them for 3D reconstruction.



Illumination

Light is a missing element in most confined environments.

Still, It is essential for the cameras to record efficiently.

Wide, diffused and powerful lighting is needed to operate effectively.



Dust resistance

It's everywhere, clogging up the equipment and causing it to overheat.

The Stereo2 has a passive ventilation system with a wide opening for rapid cleaning with dry air.

Once suspended, indirect lighting, such as the Stereo2's dust mode, is essential to maintain good visibility.



HD Feedback

The better the definition of the drone's video feedback, the better the pilot's ability to understand the inhospitable environments it is flying through.



4K RECORDING



The aim of any inspection is to obtain the best possible set of data. To achieve this, the Stereo2 carries a 4k camera.

Its hard focus is factory-set to provide a sharp image that will not be disturbed by any deposits on the lens.

The iso setting is automatic to simplify the pilot's work.

To adjust exposure at close range, simply vary the power of the on-board lighting.



10 000 LUMENS



The Stereo2 is fitted with a lighting system specifically designed for inspections in confined spaces.

The system, composed of 4 LED panels, can be adjusted from the remote controller.

Illumination is projected 180° in front of the drone.

For close-up inspections, the position of the LED panels allows surface irregularities to be highlighted by light effects.



FACING THE DUST



Industrial environments rhymes with dust. Once in suspension, lifted off the surfaces by the movement of the propellers, an opaque cloud can quickly appear. The Stereo2's indirect lighting system gives it a perfect view of the environment in these conditions, so the pilot can easily complete his inspection.



PHOTOGRAMMETRY



A 3D model gives you a new perspective on your inspections.

Locating defects is easier than sorting through hundreds of shots or watching a flight video.

Software such as Agisoft Metashape or Pix4D can be used to create digital duplicates from videos taken by the Stereo2.

The ability to retrieve flight logs also facilitates the work of reconstruction software by associating samples with a precise position in space.





TECHNICAL SPECIFICATIONS



DRONE

Configuration	Quadrirotor	Flight modes	Assisted/Manual
Engines	4x 1950kv engines	Safety	Automatic landing in the event of radio failsafe
Propellers	4x 5 inches, three-bladed propellers, pitch 3 inches	Operating frequencies	2400 to 2483 MHz
Battery life	12 minutes	ECM	2.4ghz 20dbm (CE) 23dbm (FCC)
Empty weight	900g - 1.98lbs	Noise level	80db (A)
Take-off weight	1400g - 3.08lbs	Maximum speeds	slow 0.5m/s 1.60ft/s Medium 1m/s 3.28ft/s High 1.5m/s 4.92fr/s
Max diameter	39cm - 15.35"	Maximum angles of attack	15° Assisted/Manual
Materials	Carbone, SLS	Stabilization sensors	stereoscopic camera
Operating temperatures	-20°C to +40°C -4°F to +104°F	Protection class	Splach and dust resistant

CAMERA

sensor	4K, sony IMX117 1/2.3" 12MP	FOV	170° diagonal 140° horizontal
Video format	MP4	Lens	1.9mm - hard focus
Photo format	JPG	ISO	Automatic management
Max video recording resolution	3840/2160-30FPS (4K)	File storage	MicroSD card (on board the drone) class 10 minimum
Video streaming resolution	1920/1080 - 30FPS (HD)	Supported SD card	32-64 GB (suggested capacities)
Photo resolution	3840/2160 (4K)	Format supported	FAT 32

LIGHTING SYSTEM

Total power

10 000 lumens

Power per panel

2 500 lumens

CAGE

Materials

Carbon, rubber

Resistance

1.5m/s on flate surface
(4.92 ft/s)

Weight

105g - 0.23lbs

**Cage element
replacement time**

<1 minute - pas d'outils
nécessaire

BATTERY

Capacity	5000mah
Type	LiPo
Rated voltage	14.8v (4S)
Energy	74Wh
Charge time	1hour (1C)
Weight	480g - 1.05lbs
Operating temperature	-20°C to 40°C -4°F to 104°F

RADIOCOMMANDE

Operating frequencies	2400 à 2483 MHz	Screen dimensions	5.46"" screen, 16 million colours, touch-sensitive
Display	CE/SRRC/FCC/MIC	Weight	520g - 1.14lbs
Optional standard	IN84 (CNPE-emissions <50mW)	Operating temperature	-20°C to +40°C -4°F to 104°F
EMC	2.4ghz 20dbm (CE) 23dbm (FCC) 5.8ghz 14dbm	Battery	LiPo 4950 mAh USB charging
Radio link	Duplex	Reception sensitivity	-120dBm
Free space range	12km - 7.5mi (CE) 20km - 12mi (FCC)	Reception mode	Diversity
Confined space range	up to 400m - 437yd	Antennas	1 Omnidirectional 1 directional
Radio dimensions	22/10.5/3.5cm 8.6/4/1.4" (without antennas)		

TRANSPORT CASE

Dimensions

67/50/38cm
26/20/15"

Weight

16kg - 35lbs (basic
package)

Conformity

Complies with IATA
regulations
Size/weight compatible
with checked baggage.

Multinnov

14 bis rue de l'église
76460 Néville, France

+33 9 70 93 78 37

contact@multinnov.com

www.multinnov.com/fr/stereo2

