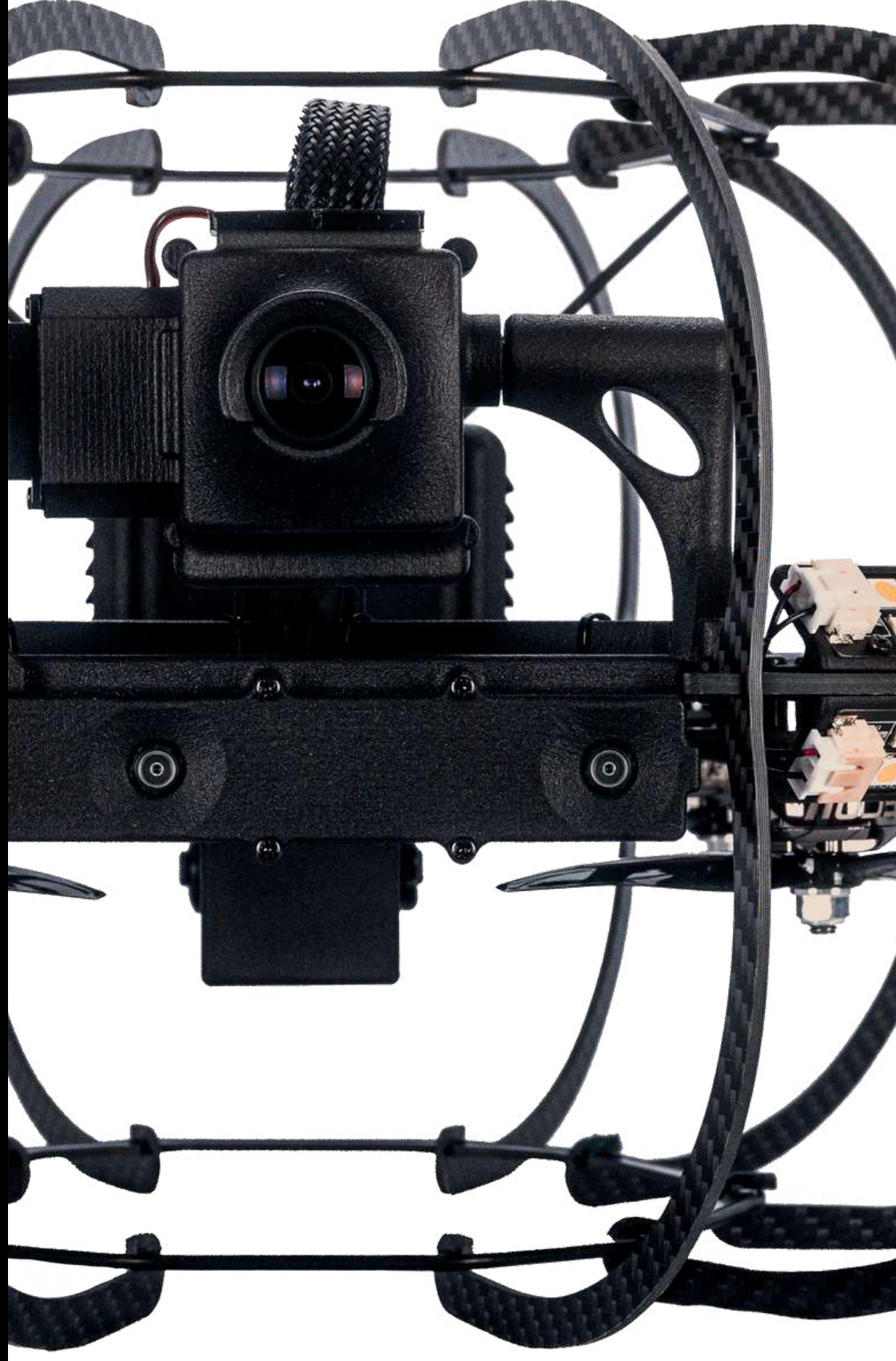
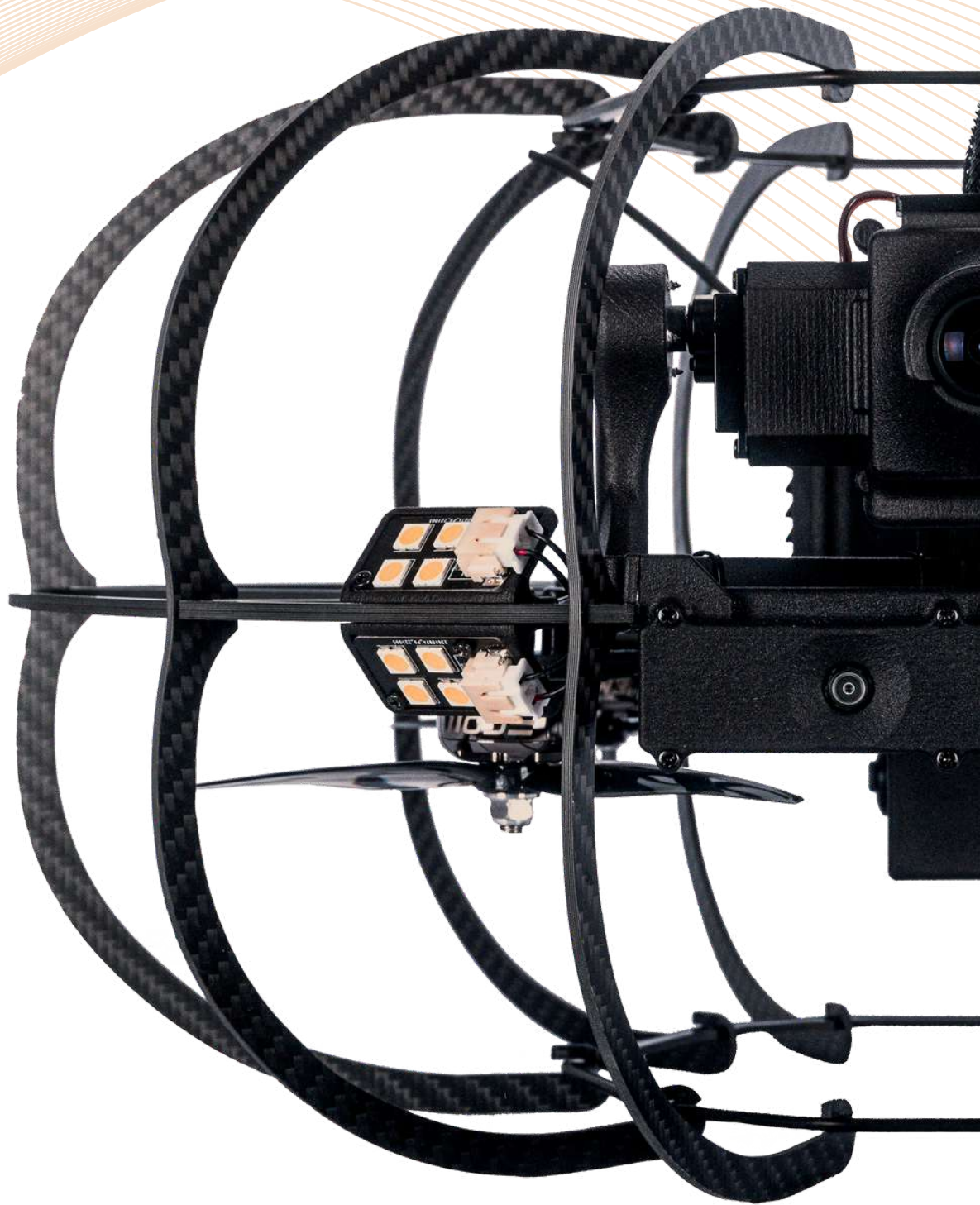




# Stereo 2





## Agility in confined spaces

- Small diameter (39cm)
- Powerful lighting system (12k 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

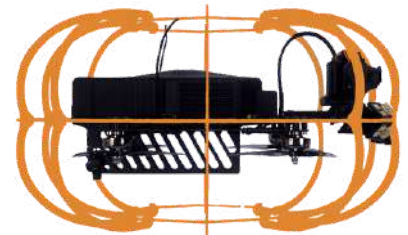
- 4k photo - Video
- Real-time 1080p video feedback
- 180° rotating camera
- Access to flight logs

# 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

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# DRONE

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



# CAMERA

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

# LIGHTING SYSTEM

**Total power**

12 000 lumens

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**Power per panel**

3 000 lumens

# CAGE

**Materials**

Carbon, rubber

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**Resistance**

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

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**Weight**

105g - 0.23lbs

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**Cage element  
replacement time**

<1 minute - pas d'outils  
nécessaire

# BATTERY

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

# RADIOCOMMANDE

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

# TRANSPORT CASE

**Dimensions**

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

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**Weight**

16kg - 35lbs (basic  
package)

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**Conformity**

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

# Multinnov

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