

# RANGE EXTENDER

THE ACCESSORY  
THAT GOES  
THE EXTRA MILE



 FLYABILITY

# **RANGE EXTENDER** THE ACCESSORY THAT GOES THE EXTRA MILE

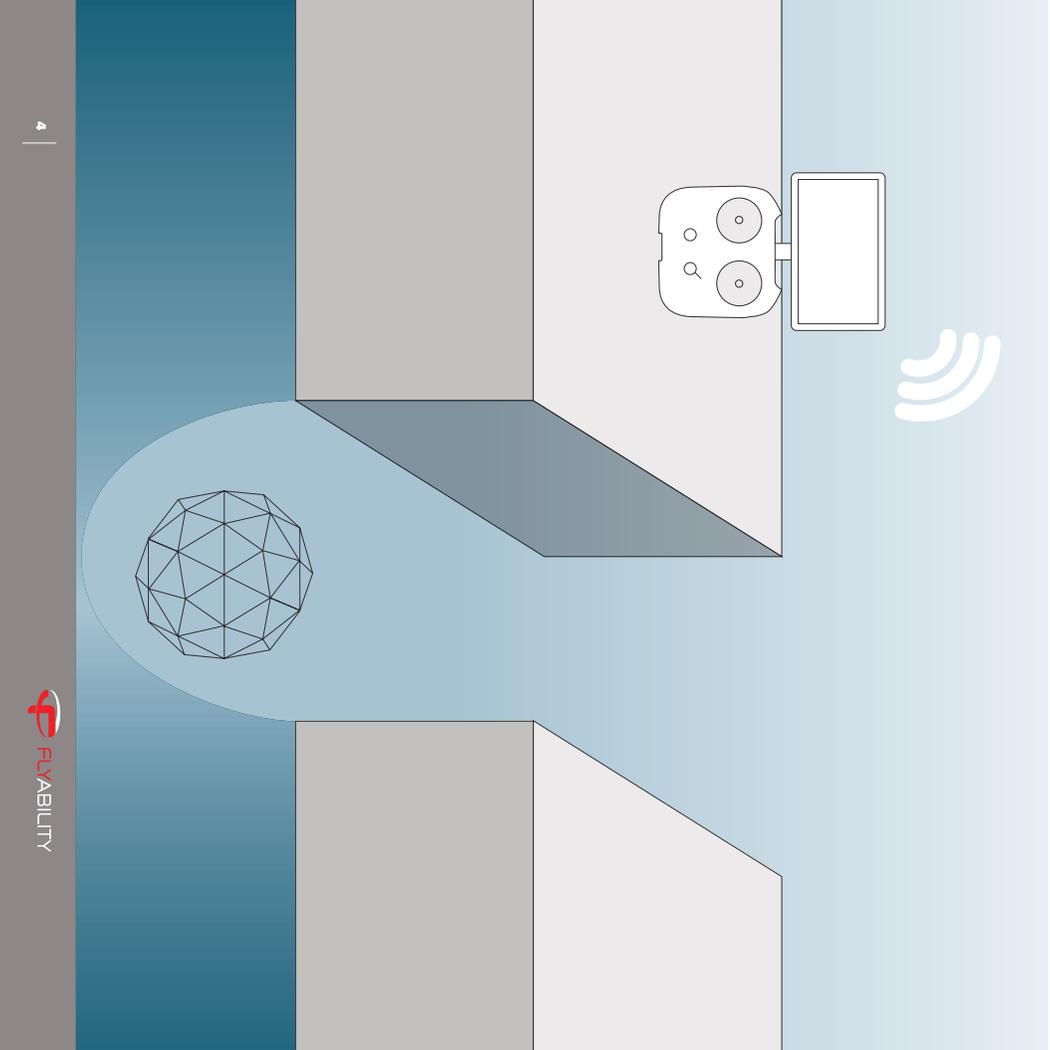
## **OVERCOME OBSTACLES**

Deploy the Range Extender easily everywhere and keep control of Elios beyond obstacles.

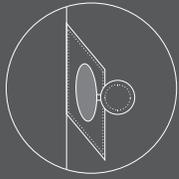
## **EASE OF USE**

Bring peace of mind and comfort to all your operations.

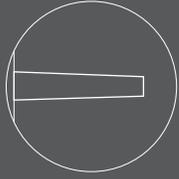




In environments such as underground galleries, stacks or mines, signal propagation can be limited by the geometry of the place to inspect and remotely operating a robot becomes difficult.



**GALLERY**

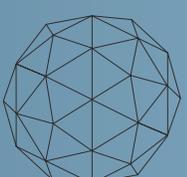
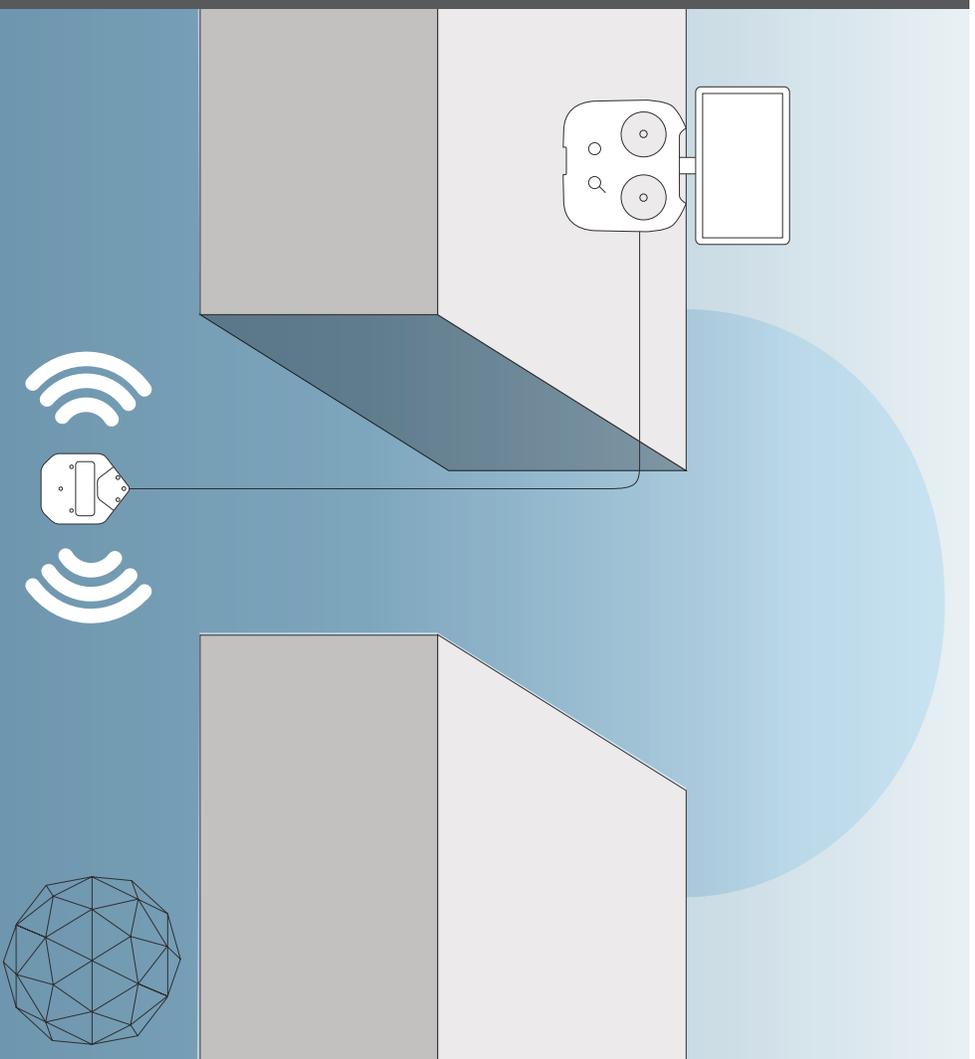


**STACK**

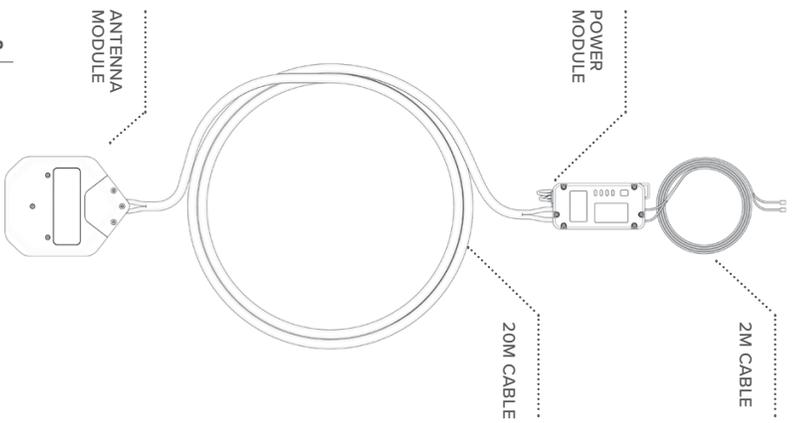


**MINE**

By placing the remote control antennas to a better location, closer to the drone, it is possible to extend the range of the drone.



# TECHNICAL SPECIFICATION



## GENERAL

**OPERATING TEMP.:** Temperature:  
0 °C to 40 °C

**FEATURES:** Compatible with Elios batteries

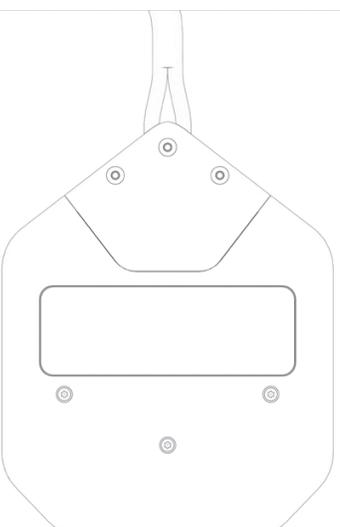
Built out of 4 replaceable submodules (power module, antenna module, 2m cable, and 20m cable)

## CABLES

**FEATURES:**

1 x 2m cable between the remote controller and the power module.

1 x 20m cable between the power module and the antenna module.



## ANTENNA MODULE

**REGISTRATION:** Dust and splash resistant

**FEATURES:** Integrated antennas

Standard fixation thread

Reflective stickers.

Easy to extract

## POWER MODULE

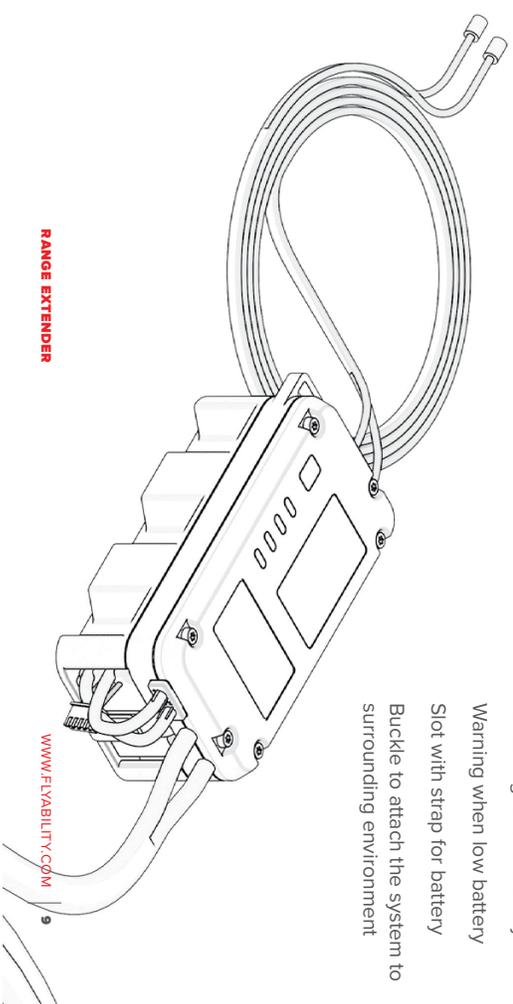
**FEATURES:**

Informs the user about the remaining level of battery

Warning when low battery

Slot with strap for battery

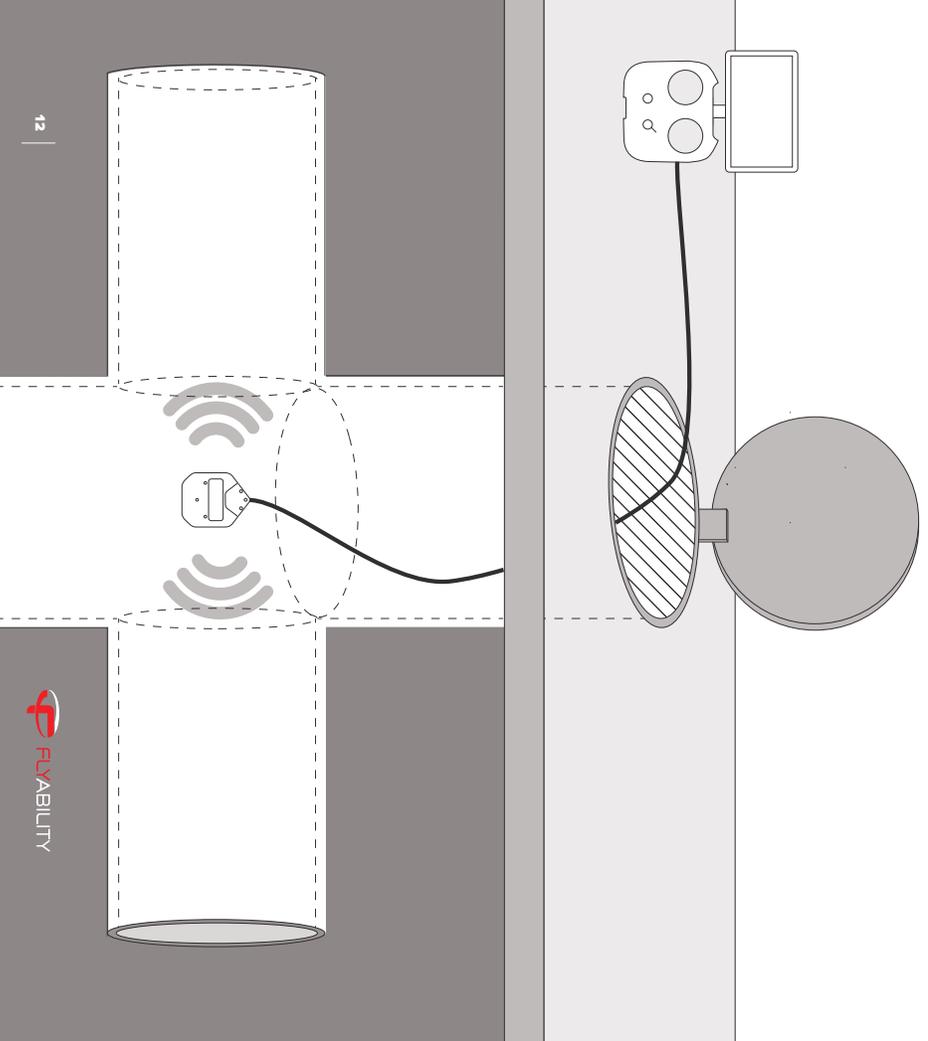
Buckle to attach the system to surrounding environment



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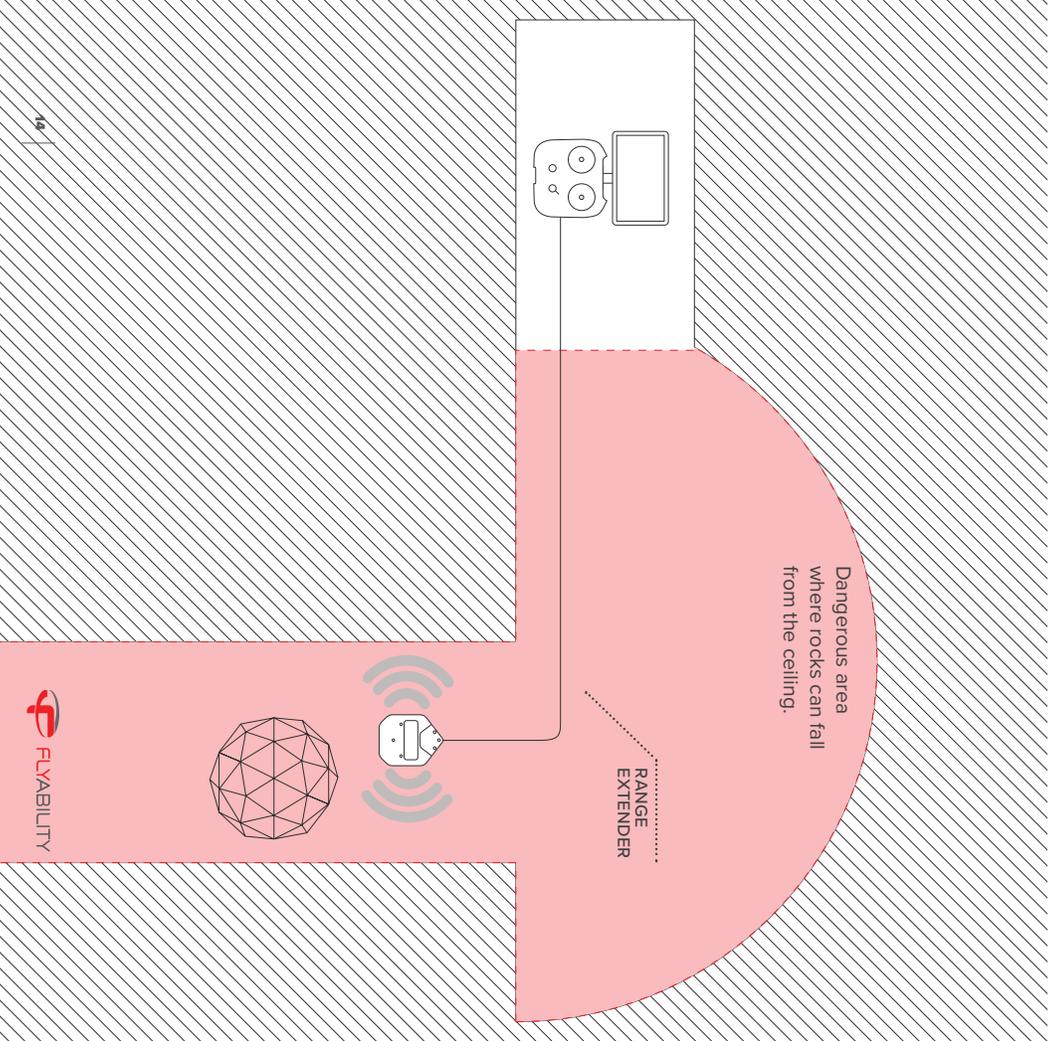
**RANGE  
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APPLICATIONS



## SEWER INSPECTION

Because they are made of concrete, sewers tend to absorb the energy of radio control signal. If the pilot stands at the surface next to the shaft of the sewer, the propagation of the signal is very limited and so is the range of the drone.

By deploying the Range Extender down the shaft of the sewer, the pilot can control the robot from the surface. This prevents the need for the pilot to expose himself to risks or uncomfortable situations.



## UNDERGROUND MINING

Many areas of underground mines are simply too hazardous for someone to venture in. As such, workers are requested to stay outside of these areas.

By deploying the Range Extender inside these areas prior to a flight, an Elios pilot will gain some precious meters that make impossible missions, possible.



Dangerous area with a slippery slope going towards the crevasse and exposure to avalanches.

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## SEARCH AND RESCUE

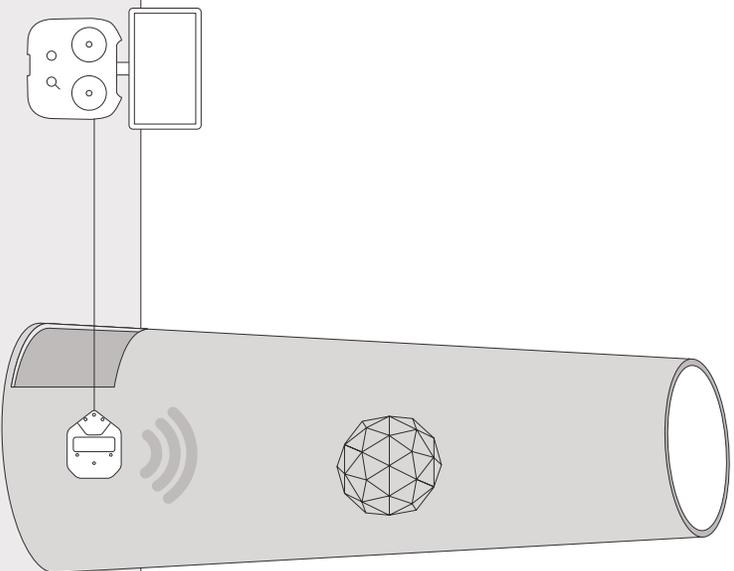
In many cases, the immediate surroundings of a rescue scene can be dangerous for the rescuers. Keeping a certain distance from it is, very often, necessary.

By deploying the Range Extender from the pilot base inside the research area, the Elios pilot will increase the quality of the signal between the ground control station and the drone and, consequently, increase the range of the drone.

## ENCLOSED SPACES INSPECTION

The entry of workers into dangerous enclosed spaces is one of the key benefits of Elios but sometimes the material used to build the asset of interest perturbs signal propagation.

By deploying the Range Extender inside the hazardous area, the pilot can operate Elios, from the outside in any situation, with peace of mind as the drone will always fly within reach of the signal.





Flyability is a Swiss-based company dedicated to developing and manufacturing safe, collision-tolerant drones for the inspection and exploration of inaccessible places. Drones are already an integrated solution as they save time, costs and decrease risk, however no current solution has been effective in complex areas.

We work in close collaboration with our clients in the Energy industries, where some industrial structures pose great health and safety risks to personnel when inspection is needed, we aim to replace these dangerous operations with our inspection UAV, Elios.

