



| ESSENTIAL WEARABLE  
| FOR YOUR SATELLITE

# OF COURSE, YOU WANT TO KNOW, WHERE YOUR BELONGINGS ARE, ALL THE TIME:

keys, wallet, phone, car, identity card  
... and your satellite!

## OWL ORBITAL WHEREABOUT LOCATOR AN ESSENTIAL WEARABLE FOR YOUR SPACECRAFT

In the ground traffic, we use license plates to identify our vehicles, GPS to track their movement, and several instruments are available to check their overall condition.

We must do something about the increasing space traffic density too.

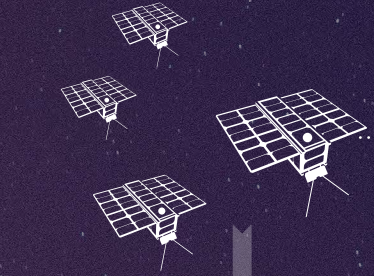
Our engineers created OWL which works like a license plate for satellites. This in-orbit automatic identification and localization system enables access to the position data of the satellite and contributes to organized and risk-free space traffic.

In the space industry, a satellite is our most precious belonging. Now, with this tiny add-on, its position data are available every time, everywhere, right after the separation!


## WHY OWL?

- It has a platform independent design.
- It fits perfectly into the Tuna Can of the spacecraft, without taking up valuable payload space.
- It has its own battery, allowing it to operate independently from the platform for at least 18 hours.
- It has a secondary communication subsystem that can provide ancillary data during the commissioning phase, such as angular velocity, location, and TID.
- Easy plug & play integration with only four screws.
- It can gather additional valuable health and telemetry data if it has access to additional power sources from satellite.
- It contributes to the mitigation of accidental collisions.

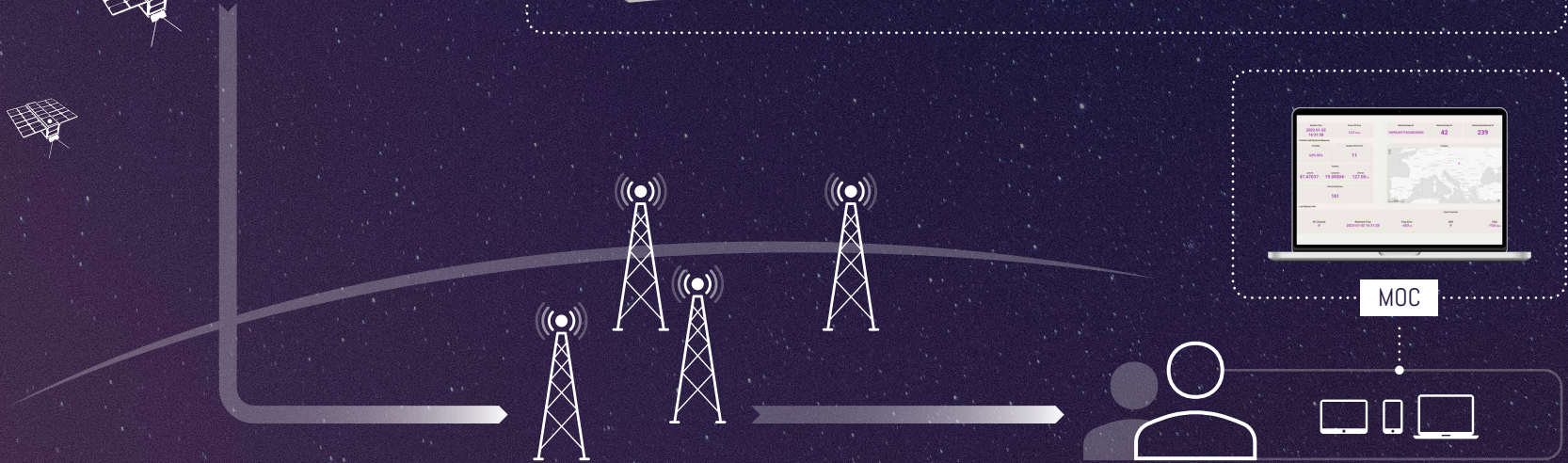




**OWL**



- Mass less than 150 g
- Dimensions 59x64x36 mm
- Comes with an integrated GNSS module, battery and an optional dosimeter
- Based on the RILDOS standard
- It can independently measure TID and per-axis angular velocity
- You can have onboard access to the GNSS data of the OWL!



01  
IN-ORBIT CUBESAT WITH OWL

02  
GROUND STATIONS

03  
END USERS WITH MOC



## HOW DOES OWL WORK?

- The device inserts all the information in the beacon messages that are periodically downlinked through its radio.
- The host satellite can forward its telemetry data and Health Flags defined toward OWL through a UART communication bus (optional).
- Communication can work in both directions, allowing the host satellite to query some parameters from OWL, such as position data received by the GNSS (GPS).
- It communicates with C3S's ground station network (independently from the satellite).
- It comes with a web service, so operators have real-time data access.
- It has two operational modes, depending on the source of power: safe (powered by its battery) and nominal (powered by the satellite).
- High-security access ensures that only verified users can access the user's data.

## YOU MAY NEED OWL IN THE FOLLOWING CASES:

- **Deployment:** when several satellites are released from a spacecraft, it can be challenging to identify the one that belongs to you among the swarm.
- **Failure:** for example, if the antenna fails to open, you cannot communicate with your satellite and don't even know the cause of the problem.
- **Unfavorable operational conditions:** such as lower ADCS stability, when the antenna is only facing the right direction for a very limited period if any.
- **Inoperable satellite:** OWL can be used to download backup HK data to determine the reason, such as incorrect thermal design or faulty energy balance.
- **Avoiding additional system development:** OWL eliminates the need to develop an additional system for TID, GNSS, and angular velocity measurements.
- **Ensuring satellite safety:** during the commissioning phase, OWL can provide per-axis angular velocity data independently, aiding in ADCS calibration and assuring your satellite's safety even without turning on its subsystems.

Eliminate the risks! OWL identifies and localizes your satellite while providing valuable telemetry and health data. You can monitor exactly what is happening onboard your satellite, even if the platform itself is momentarily dysfunctional.

# GET IN TOUCH WITH US!

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