



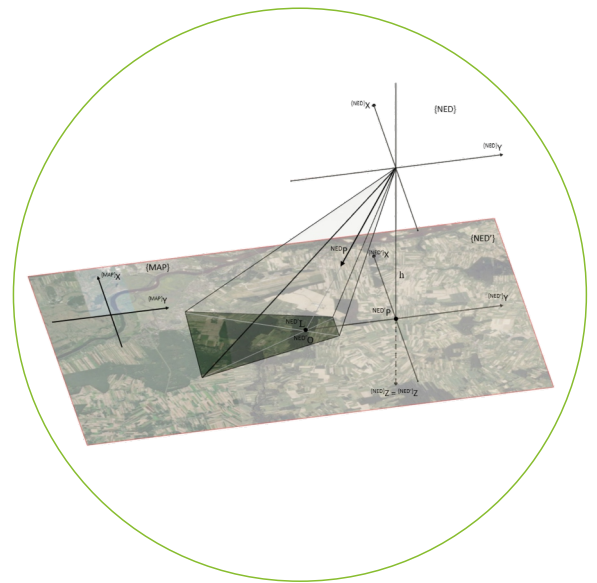
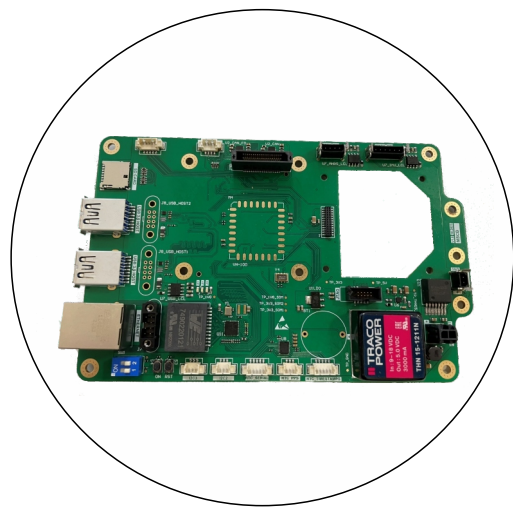
Łukasiewicz
Institute
of Aviation



**GNSS-FREE
NAVIGATION
SYSTEM
(FOR UAS)**

CHARACTERISTICS

A device enabling precise location without access to satellite signals. It is designed for installation in unmanned aerial vehicles and rockets, allowing navigation in areas with intentional radio-electronic interference, distortions, or weak satellite signals. It is based on a combination of inertial and vision navigation methods to determine the orientation and position of an object.



KEY FEATURES

The device consists of:

- IMU sensor (accelerometer and gyroscope).
- Vision-based navigation camera.
- Computing platform.
- Navigation algorithm software.

Benefits:

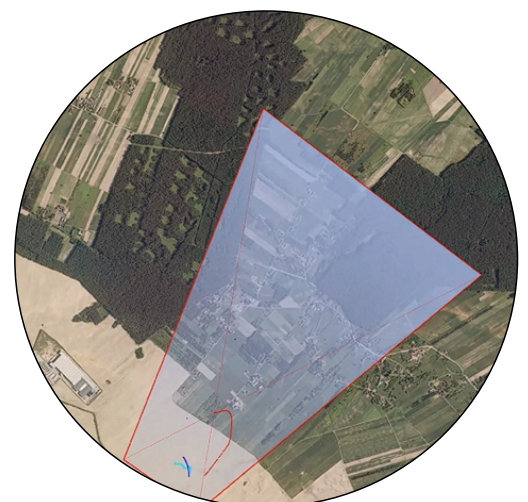
- Navigation without access to satellite signals.
- Accurate location determination up to 5 meters.
- Provides precise data.

APPLICATIONS

- Areas with intentional radio-electronic interference.
- Military operational areas.
- In urban environments with interference or weak GNSS signals.

Installations in:

- Aircraft, especially UAS.
- Rockets artillery and sounding rockets.
- Cruise missile Loitering munition.



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