

GEO MIND

Reliable drone localization without satellite signals

Mission-critical localization for drones in GNSS-denied and GPS-contested environments. No satellites. No cloud. No LiDAR. Sub-5-meter accuracy from a standard RGB camera, in real time. **When positioning fails, the mission fails — Geomind keeps the drone flying.**

< 5 m

POSITIONING
ACCURACY

GNSS-Free

LOCALIZATION IN
DENIED ENVIRONMENTS

Mission Critical

NO DRONE LOST
WHEN SATELLITES FAIL

No LiDAR

ONLY EMBEDDED
SENSORS REQUIRED



KEY CAPABILITIES

01 ACCURATE LOCALIZATION WITHOUT SATELLITES

Sub-5-meter precision using only the drone's embedded sensors — no LiDAR, no satellite imagery, no elevation models.

02 SENSOR FUSION & DRIFT CORRECTION

Real-time computation with limited drift, even over long distances — achieved by tightly fusing multiple embedded sensors, each compensating the others' weaknesses.

03 REAL-TIME MAP OVERLAY

Drone position aligned on preloaded satellite maps in real time — full situational awareness, no network required.

04 MISSION CONTINUITY

Integrates natively with autopilot and routing systems, maintaining autonomous positioning at all times.

BUILT TO POWER TERRAMIND IN SATELLITE-FREE AIRSPACE

Geomind feeds precise georeferencing straight into Terramind — real-time 3D maps can be georeferenced even when satellites cannot be trusted.

GEOMIND + TERRAMIND



Mission-critical GNSS-free localization for drones — sub-5-meter precision, runs on a ground terminal today, designed for onboard UAV deployment.

LIVE LOCALIZATION

Real-time drone position without satellites

MAP VIEW

Drone position overlaid on operator's map

VIDEO

UAV

GNSS

ANNOTATIONS

LIST

VIDEO

1280x720

Res. 69.000°

HFOV 42.270°

VFOV

UAV

Lat. --

Lon. --

Speed 8.41 m/s

Alt. MSL --

Height 52.17 m

GNSS ESTIMATION

Lat. 48.7211387° N

Lon. 2.7503893° E

DESIGNED FOR OPERATIONS WHERE SATELLITES CANNOT BE TRUSTED

TECHNICAL SPECIFICATIONS

COMPATIBLE PLATFORMS	- Any STANAG 4609 or MAVLink compatible platform - Multi-rotor and fixed-wing drones
INPUT SENSORS	- Standard RGB camera — no LiDAR required - Drone IMU and barometer telemetry (optional, for higher accuracy and resilience)
POSITIONING ACCURACY	- Sub-5-meter positioning error in real-world conditions - Limited drift over extended mission distances - Real-time computation on the fly during the mission
NAVIGATION ENVIRONMENTS	- GNSS-denied and jammed environments - Indoor, underground, and urban canyon operations - Open terrain and degraded connectivity conditions
PROCESSING & ARCHITECTURE	- Runs on a portable ground terminal alongside the drone operator - Designed for onboard UAV deployment — lightweight architecture for edge compute - No cloud, no internet, no external signals required
INTEGRATION & OUTPUT	- Native Terramind integration — powers 3D reconstruction in GNSS-denied airspace - Autopilot and routing system compatible - Real-time position overlay on preloaded maps - Georeferenced output for C2 system integration

GEOMIND

Sovereign Navigation Intelligence.

No satellites. No limits.

< 5m

POSITIONING ERROR WITHOUT GNSS