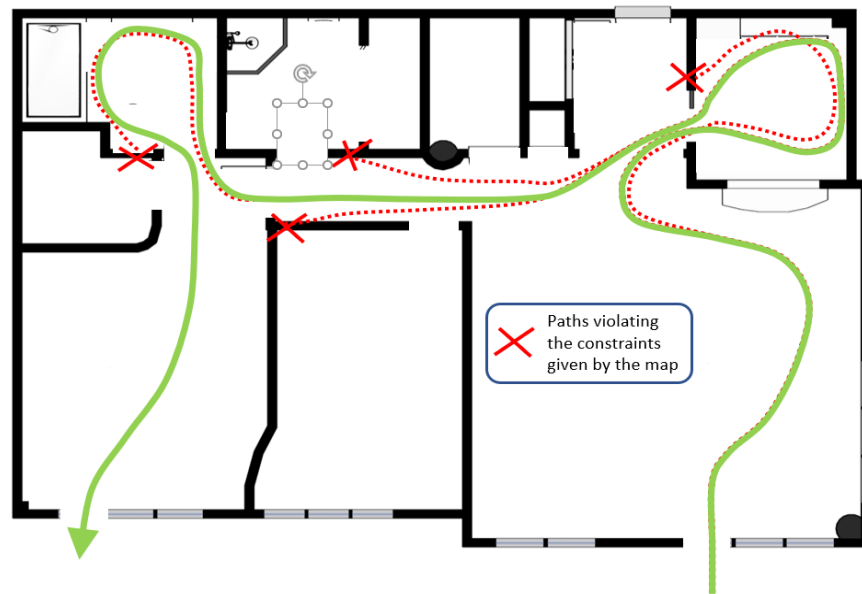


ARIANNA-MAP working principle



ARIANNA-MAP explores all the possible drift factors coming from the wearable inertial sensor unit, rejecting the ones leading to the violation of the constraints given by the map

ENVIRONMENTS

GPS-denied

Magnetically polluted

EM shielded/jammed

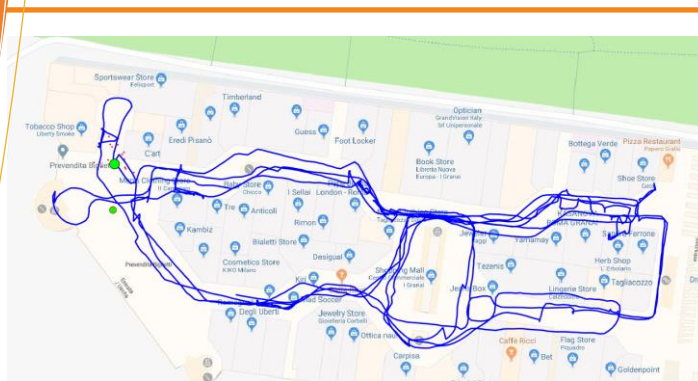
Infrastructure-free

Main features of ARIANNA-MAP

- Suitable for tracking over a long-time span personnel and safeguards in airports, power/chemical plants, industrial structures, government structures, malls, etc.
- No need of location-aiding infrastructures ad-hoc deployed (or pre-existing) in the operational environment
- Accuracy largely independent of the walked distance and mission time
- Can handle the (optional) inclusion of additional anchor points in the area, further improving the location accuracy
- Although designed to maximally exploit the features of DUNE ARIANNA system, it also accepts input tracks estimated by third parties
- Applicable for both real-time tracking and off-line applications (e.g. debriefing, training)

On-field operations

ARIANNA-MAP has been extensively tested both in outdoor and indoor environments in a widespread ensemble of scenarios (e.g. large industrial plants, large malls, underground parking) with experiments durations up to 6 hours, always providing end-to-end results compliant with or exceeding the target requirements.



Six hours of continuous tracking in a large mall (mimicking an airport or a government structure, or a power plant)