



GROUND POSITIONING RADAR

Precise All-Weather
Positioning

GPR WAVESENSE TECHNOLOGY

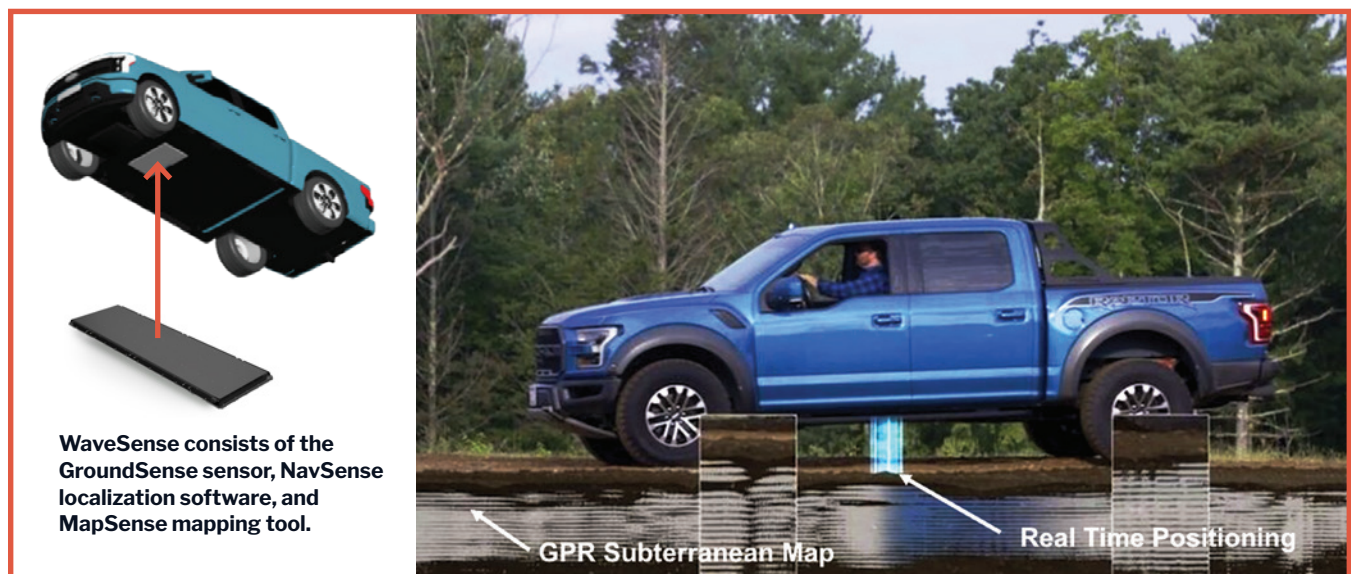
MAPPING THE SUBSURFACE WITH **GROUND PENETRATING RADAR**

Autonomous operations rely on localization systems to position vehicles on maps that contain key details of the environment, like lane center, drivable area, static obstacles, and waypoints. However, even advanced sensors falter in challenging conditions like inclement weather, dynamic environments, tunnels, urban canyons, and occlusions by other vehicles, often leading to system failures.

Ground Penetrating Radar technology offers consistent and reliable data, to both the map and the real time environmental perception, to provide the most **robust** and **available** localization to date.

ROBUST AND **PRECISE POSITIONING** FOR:

- Mining & Quarry
- Seaport Logistics
- Shuttles and Robotaxis
- Airport Logistics
- Middle Mile Delivery
- Last Mile Delivery
- Commercial Freight
- Construction
- Manufacturing & Warehousing
- ADAS, including Valet Parking



Independently, or in combination with other sensors, WaveSense provides mission-critical localization for everything that moves autonomously, down to the centimeter. By extracting unique subterranean data, GPR's landmarks remain unobstructed and accessible, ensuring unmatched, functionally safe localization.

The WaveSense Advantage



Resilient in adverse weather



Reliable in GPS-denied areas



Stable maps over time



Never occluded by dynamic environments



Effective in homogeneous environments like tunnels



True orthogonal redundancy for functional safety

GROUNDBREAKING PERFORMANCE FROM GROUND PENETRATING RADAR

Reliable positioning sets a foundation for the safe and profitable deployment of autonomous vehicles. Integrating WaveSense into the autonomy stack helps enable safe operation, maximizes uptime, and broadens availability across industries.

Increased uptime and availability directly lead to substantial cost savings and increased revenue for commercial operations.

Discover the competitive edge that GPR brings to your business.

Radar data is matched to a previously created WaveSense map layer in real-time. Through this automated process, GPR positions the vehicle based exclusively on underground data.



Comprehensive, unchanging 3D maps remain consistent over time.



GROUND
POSITIONING
RADAR™

UNEARTHING **THE FUTURE** OF AUTONOMY



For more information contact info@gpr.com

Visit us at www.gpr.com