UGV Assisted Navigation

Equip your UGVs with cutting-edge, off-highway navigation technology. From rough terrains to remote job sites, our integrated system delivers accurate localisation, optimised path planning, and responsive control—enabling safe, efficient, and autonomous movement in the most demanding environments.

Overview

UGV Assisted Navigation is a smart navigation solution designed for Unmanned Ground Vehicles (UGVs) operating in off-highway environments such as agricultural plantations, construction sites, and mining quarries.

It delivers accurate and reliable positioning and orientation data, enabling UGVs to understand their surroundings with precision. The system also generates an optimised path and trajectory, guiding the vehicle from its starting point to the intended destination—safely, efficiently, and autonomously.

Key Features

- **Robust Control System**
  Versatile, modular, and built for real-time performance. Our control system ensures seamless hardware integration, effortless configuration, and rock-solid reliability, empowering scalable, next-gen robotics.

- **Reliable Communication**
  Experience next-level performance with reliable communication for Unmanned
  Ground Vehicles (UGVs)—designed to keep your mission moving, no matter the
  terrain. Whether it's navigating dense forests, urban landscapes, or vast agricultural fields, our advanced communication systems ensure uninterrupted command, control, and data streaming. Leveraging cutting-edge technologies like LoRa, Wi-Fi, cellular, and mesh networking, our solutions deliver long-range connectivity, real-time telemetry, and rock-solid reliability even in the toughest environments, empowering smarter decisions, faster responses, and safer operations. Stay ahead. Stay connected. Drive with confidence.

- **Accurate Navigation**
  Advanced sensor fusion combines GNSS+RTK, IMU, and visual odometry for pinpoint positioning and orientation. Obstacle-aware mapping enables autonomous pathfinding in complex terrain.

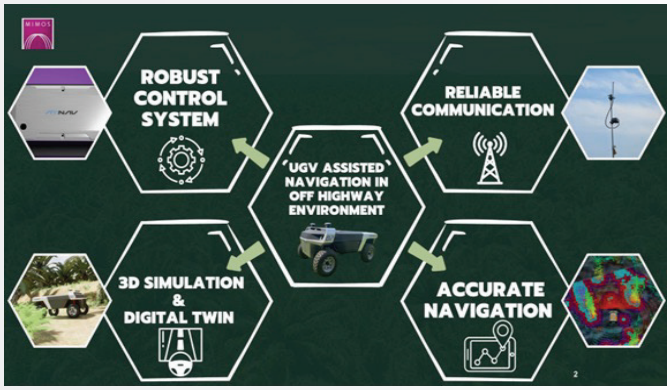
- **3D Simulation and Digital Twin**
  Simulate before you deploy. Realistic terrain, live sensor emulation, and failure prediction helps you train, test, and optimise routes, cutting risks and boosting efficiency from day one.

Technology Benefits

- **Integrated Navigation System for UGV**
  Combines precise positioning, accurate orientation, and intelligent path planning into a single seamless system.Whether navigating rugged agricultural fields, dynamic construction sites, or remote mining areas, this technology ensures UGVs move safely, efficiently, and autonomously—from point A to point B with optimised trajectories and minimal human intervention.

Applications

- Agriculture
- Construction
- Mining



MIMOS Berhad 199501006785 (336183-H)
Taman Teknologi MRANTI, Bukit Jalil,
57000 Kuala Lumpur, Wilayah Persekutuan
Tel: +603 8995 5000 | Fax: +603 8996 2755
www.mimos.my

mimosmalaysia