Seafloor™

COLLISION AVOIDANCE ASSIST

Fully - Autonomous Navigation Integration for Uncrewed Surface Vessels

Seafloor's Collision Avoidance Assist (CAA) system add-on brings heightened hands-off capabilities to our line of uncrewed survey vessels. The system's main components include an onboard computer, LiDAR, and 3D camera to navigate around both stationary & moving objects. Our point cloud 360-based system detects and tracks objects in real time within a standard 25m radius. The system reduces human navigation errors, increases hydrographic data acquisition efficiency, and protects survey instruments during missions.

KIT INCLUDES

- LiDAR Unit: Velodyne VLP-16 or Ouster OS1
- IP67 3D Camera that senses space and motion
- High-powered companion computer

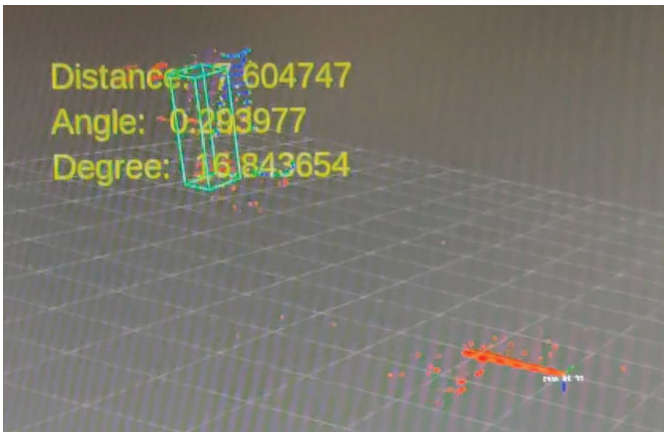
FEATURES

- Adjustable avoidance reaction distance
- Opens up ability to use computer vision for data collection & analysis, as well as identifying objects of interest
- Integrates with AutoNav™ and other autopilot systems
- Optional integration of forward-looking sonar for run-aground prevention
- Modular; can add additional software and instruments
- Over-the-air software & machine learning updates
    - Allows ability to use computer vision models to enhance your individual project
    - Sensor fusion incorporating Radar on roadmap

SPECIFICATIONS

- IP67+ LiDAR
- 25m standard avoidance reaction distance (50m available with alternate higher-density LiDAR)

Avoid static and moving objects



Paddleboarder as seen from CAA

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