AFFORDABLE AUTONOMOUS SOLUTIONS

Self-Driving Vehicles

LSA Autonomy's Autonomous Security and Surveillance Platform (ASSP) provides on-road and off-road autonomous mobility for a user selected payload. The system pictured is integrated onto a Polaris Ranger and utilized by the US Army Product Manager, Force Protection Systems to compliment base security forces. System highlights include, but are not limited to, the following:

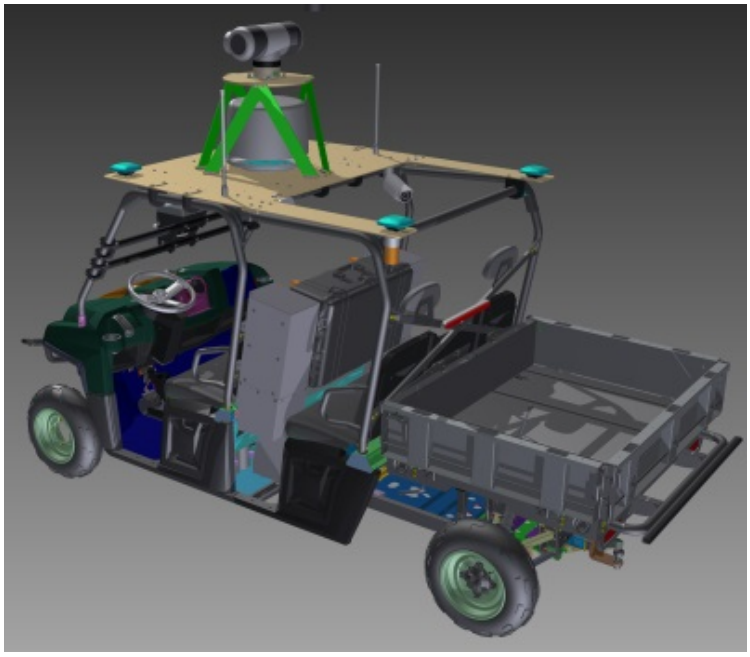
- On-road and off-road waypoint route execution,
- Mobility obstacle detection and avoidance,
- Long range intruder detection and tracking,
- EO/IR situational awareness with two-

PDM-FPS ASSP V2.1.

way audio.

Drive-By-Wire/Sail-By-Wire Kits

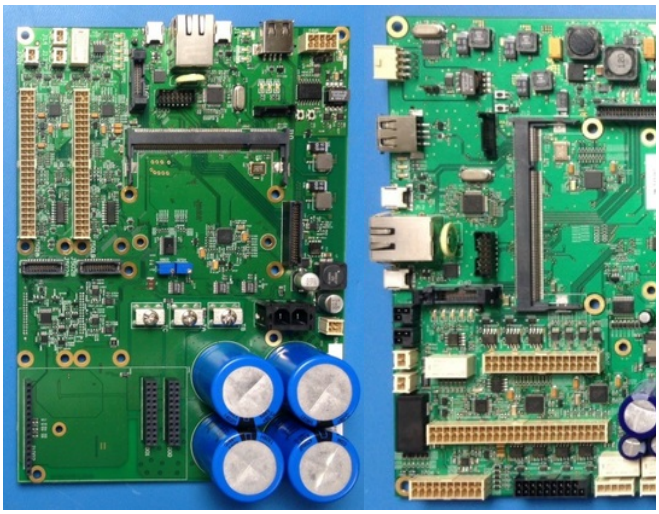
The Drive-By-Wire system designed for LSA Autonomy's self-driving vehicles is available as a standalone product. Designed as a vehicle agnostic bolt-on kit, it is readily adaptable to practically any vehicle with a throttle/brake pedal, steering wheel, and gear shift lever. The kit also features fail-safe actuator controllers, JAUS compliant Ethernet interface, and a rugged design. Platforms on which the kit has been installed include:



PDM-FPS ASSP V2.2.

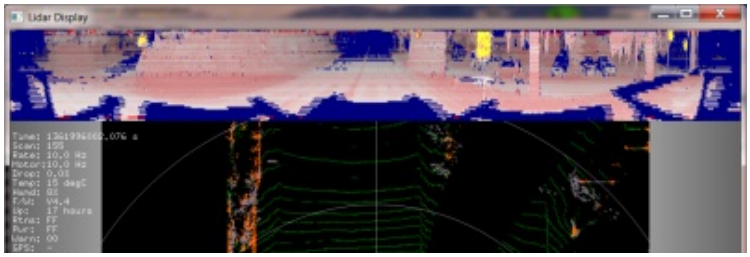
- Polaris Ranger Diesel,
- Polaris Military Crew Diesel.

Hardware Components



- High performance, environmentally controlled, ruggedized COTS computing environment
- Low-cost, high-accuracy, navigation system
- Computer controlled power distribution
- Precision wheel encoders
- Fail-safe actuator controllers

Software Modules



- Navigation state estimator
- LiDAR-based Obstacle detectior

- Radar and LiDAR target tracker
- Sensor fusion engine