Unmanned Ground Vehicles (BGN)

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The development and operation of Unmanned Ground Vehicles (UGV) technology are of raising interest in a number of industries as well as military activity. The Laboratory for Autonomous Robotics (LAR) within the Faculty of Engineering at the Ben-Gurion University has been developing know-how and intellectual property on autonomous robotics applications for the past ten years. Among its activities the LAR has developed technologies that support state-of-the-art capabilities for UGV platforms. These technologies may be applicable to: System Architecture, Various sensors (Video, Sonar, Inertial, LADAR, GPS), Image Processing, Sensor Fusion, Vehicle Control, Path planning and obstacle avoidance, System Integration, Wearable Computers, MMI, Communications, Platforms Design and much more. The LAR presents a one stop solution for the comprehensive development and adaptation of automatic and autonomous vessels.
The intellectual property and know-how developed and possessed by the group comprises:
Sensing elements;
Specific software (algorithms);
Identification capabilities;
Integration capabilities;

Benefits
Cutting edge technologies.
A high quality team of experience UGV experts.
One address for a complete adaptation of any vehicle to perform autonomous operations.
Cost effective performance.
An excess of 10 years of experience in successful UGV projects;

Potential Commercial Uses and Strategic Partners
Traditionally UGV are mainly applied for tasks that present risks to the human operator e.g. Military activity, cleaning contaminated areas, clearing midfields. However the UGV can easily be customized to perform agricultural and similar tasks required for large area coverage.

Development Stage and Development Status Summary
System Architecture - A general version is ready for adaptation and optimization to customer's specifications.
Vehicle Control - A system is ready for demonstration.
Path Planning - A system is ready for demonstration.
Image Processing - A system is ready for demonstration.

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