



## TORC Robotics Wins JIEDDO Endurance Challenge at Robotics Rodeo

*Ground Unmanned Support Surrogate takes first place in the JIEDDO Counter-IED Endurance Challenge at Robotics Rodeo*

**BLACKSBURG, VA (July 16, 2012)** – TORC Robotics announced today that the Ground Unmanned Support Surrogate (GUSS) autonomous vehicle received first place in the Joint IED Defeat Organization's (JIEDDO) 2012 **Counter-IED Robotics Endurance Challenge** (<https://www.jieddo.mil/roboe1.aspx>), Mounted-Support Category. The Challenge took place during the TARDEC Robotics Rodeo at Fort Benning, GA on June 28th. While the Challenge allowed teams to control their systems via local or remote teleoperation, TORC ran GUSS in autonomous mode to demonstrate its highly capable AutonoNav™ navigation system, recently upgraded as part of the **4th USMC Limited Technical Assessment** (<http://www.torcrobotics.com/media/press-release/marine-corps-complete-fourth-lta-unmanned-ground-vehicle/>). GUSS completed the 23-km mission at the Kall River driver training facility with the quickest time and without operator intervention.



GUSS autonomously navigates the 23-km mission with the quickest time to complete the JIEDDO C-IED Endurance Challenge.

“TORC is pleased to accept this award on behalf of the entire GUSS team, including Virginia Tech, NSWC-Dahlgren, and the Marine Corps Warfighting Lab, as further validation our ongoing efforts continue to improve UGV capabilities and deliver reliable systems to the Warfighter,” states Andrew Culhane, Business Development Manager at TORC Robotics. “We are supporters of competitive challenges. They are important for R&D and commercialization efforts to align capabilities with end user-needs – the challenge components of the Robotics Rodeo help push that alignment.”

The Endurance Challenge was designed to (1) assess the speed, reliability and endurance of support robots over unimproved roads similar to those found in Afghanistan while detecting and avoiding obstacles, (2) assess the ability to detect changes in the road environment over time, and (3) create cartographic data products for use in mission planning and after action review. According to **JIEDDO’s Mission Relevance statement ([https://www.jieddo.mil/content/roboe/RR1\\_Endurance\\_Challenge.pdf](https://www.jieddo.mil/content/roboe/RR1_Endurance_Challenge.pdf))**, successful completion in this challenge demonstrates that GUSS is capable of traveling extended distances needed to accomplish various unmanned and autonomous missions, including dismounted operations, movement and maneuver, mobility operations, route clearance, reconnaissance, and resupply.

GUSS systems are optionally-unmanned autonomous vehicles that lighten the load carried by the dismounted Warfighter, reduce the dependence of dispersed ground combat elements on external resupply, and aid casualty evacuation. GUSS can carry 1800 pounds and is capable of autonomous speeds up to 10-mph (about the speed of dismounted troops) over a variety of off-road terrain. The multi-mission robotic system can be controlled using the handheld WaySight™ or through a wearable control unit with a FalconView-based Mission Management and Tele-Op interface. The third-generation GUSS vehicle demonstrates the capabilities found in TORC’s recently announced **unmanned conversion kits (<http://www.torcrobotics.com/content/unmanned-vehicle-conversion-kits>)**: ByWire™, Tele-Op, and Autonomy Kits.

**Contact TORC (<http://www.torcrobotics.com/contact-sales>)** for more details about GUSS and to learn how the

vehicle conversion kits can work with your platform, mission, and payloads.

### **ABOUT TORC Robotics**

TORC enables engineers to rapidly integrate robotic systems through a suite of modular, customizable products. Leading academic, commercial and government organizations use the TORC Robotic Building Blocks™ product line to shorten the development process, lower costs and mitigate risks. These products are used on more than 100 mobile robots ranging from 15 pounds to 15 tons. TORC provides solutions for drive-by-wire conversion, emergency stop, power management, autonomous navigation and operator control. TORC also provides custom autonomy solutions that map to user-specific missions and needs. For more information, visit <http://www.torcrobotics.com> (<http://www.torcrobotics.com>).

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