



JOINT IED DEFEAT ORGANIZATION NEWS STORY



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JIEDDO to Host Counter-IED Robotics Challenge

By Staci George
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A soldier on foot patrol often travels long distances over uneven landscapes covered with IEDs.

“Can your robot do that?” — This is one question JIEDDO will be asking this summer, when it holds its first ever challenge-based solution-finding event involving robotics and sensors.

JIEDDO is partnering with the U.S. Army Research, Development and Engineering Command, the U.S. Army Tank Automotive Research, Development and Engineering Center, the Army Capabilities Integration Center and the Maneuver Battle Lab for the 2012 Robotics Rodeo, scheduled for June 20-28 at Fort Benning, Ga.

Although this is JIEDDO’s first year participating, it is TARDEC’s third year for the rodeo. A networking opportunity for all those involved, a tradeshow will be held during the final two days where attendees can interact with an array of exhibitors and see demonstrations.

The rodeo will bring together the defense, homeland security, academia and industry communities to energize robotics in support of the warfighter. Furthermore, it challenges industry for new solutions and allows JIEDDO to observe new robots for potential counter-IED solutions.

“It will allow JIEDDO to express the soldiers’ capability gaps in the form of an actual challenge against which vendors can complete,” said Matthew Way, JIEDDO program integrator.

JIEDDO has four objectives for this competition: support counter-IED in a dismounted/mounted environment, encourage private technology investment, use challenge-based acquisition strategy to drive industry and create industry collaboration.

From early February through March 12, JIEDDO is soliciting for robots and sensors capable of performing in one or more of the four challenge categories: endurance, reconnaissance, detect and disrupt. The endurance challenge measures speed and endurance of mounted and dismounted support robots over unimproved road. This is to measure the operational concept of which platform can support dismounted operations, said Way.

In other words, robots competing in the endurance challenge must be able to keep up and keep going, just as the soldiers on patrol where IEDS are present must do.

The reconnaissance challenge measures sensor acuity, platform mobility and spatial accuracy required to locate objects in a tactical environment. This challenge is important in continuing to improve

and drive or shape enablers for lightweight robots in support of dismounts, he said. This challenge represents the warfighters' requirement to inspect dangerous or physically inaccessible places. Robots successful in the reconnaissance challenge are significant to the warfighter in the field because it frees them up to do other tasks, as well as save soldiers' lives.

The detect challenge involves locating IED triggers in a tactical environment without activating them to see which sensors and technologies can be adopted to platforms supporting dismounted operations. Detection of IEDs is one of JIEDDO's primary missions.

Lastly, the disrupt challenge is where the robot has to disable the operation of IED triggers in a tactical environment without activating them. In a real route clearance mission, it is less dangerous to defeat the IED trigger mechanism than trigger the IED itself, Way said.

The course for the four challenges is a dirt road navigable by a standard sport utility vehicle, and located south of McKenna, Ga. The course is bordered by trees and ditches. It is meant to resemble the terrain of Afghanistan and Iraq.

For robot entries, vendors interested in participating need to submit both an information paper and a video demonstrating its capabilities in one of the four areas. All industry and academia robotics vendors are encouraged to submit entries.

"We are trying to seek new vendors and technology, as well as have heavy interest from academia," said Way.

Robotics departments from schools such as Georgia Tech, Virginia Tech and Carnegie Melon — to name a few — will receive invitations to submit entries and other information about the rodeo.

For more information about the rodeo, contact Herbert Frazier at 703-604-2814 or log onto <https://www.jieddo.dod.mil/robo.aspx>.