

# Press Release



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For Immediate Release

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## Inaugural Worldwide Robotics Competition Set to Kick Off in Australia

- *MAGIC 2010 competition sponsored by United States, Australian Defense Departments*
- *Five teams from three countries to battle in inaugural showdown*

U.S. ARMY DETROIT ARSENAL, WARREN, MI – Robots are in transit, teams are prepping to travel and Australian hosts are making final arrangements as the inaugural Multi Autonomous Ground-robotic International Challenge (MAGIC 2010) gets ready to rumble at the Royal Showground in Adelaide, South Australia, Nov. 7-12.

Teams from the United States, Turkey and Australia have been selected by the United States and Australian defense departments to compete in an effort to develop the next generation of fully-autonomous ground robots. Those five teams are (*alphabetical by team name*):



- **Cappadocia** – Ankara, Turkey
- **Magician** – Perth, Australia
- **RASR** – Gaithersburg, Md.
- **Team Michigan** – Ann Arbor, Mich.
- **University of Pennsylvania** – Philadelphia

MAGIC 2010 is a joint initiative of Australia's Defence Science and Technology Organisation and the U.S. Army Research, Development and Engineering Command's Tank Automotive Research, Development and Engineering Center (TARDEC). The competition's aim is to develop teams of robots that can operate autonomously on the battlefield in dangerous situations, keeping Soldiers out of harm's way.

In some ways, MAGIC 2010 resembles previous Defense Advanced Research Projects Agency (DARPA) competitions, but the rules for this competition are challenging teams in new ways. For example, each team must have at least three robots and no more than two operators. Initial reports indicate that teams have between four and 15 robots.

The three phases of the timed competition also pose unique challenges. Phase I keeps teams indoors dealing with static "objects of interest," like simulated roadside bombs. Phase II requires teams to deal with static and mobile obstacles in an area twice the size. Phase III, the most difficult, presses teams to operate indoors and outdoors with several mobile and static impediments all while avoiding a simulated sniper that can "kill" the robots.

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Originally, 23 teams from five countries submitted entries to the competition. Australian and U.S. officials visited 12 short-listed teams during a hectic several-week period to evaluate their robots.

During the evaluations, teams performed a range of activities to demonstrate certain capabilities including the ability to operate autonomously and to map their surroundings digitally.

MAGIC 2010 will lead to groundbreaking robotics research in critical new arenas that will address operational challenges and save Soldiers' lives. The work done between the U.S. Army and the Australian Department of Defense spans across the globe in efforts to advance technology for the warfighter.

## **ABOUT RDECOM**

The U.S. Army Research, Development and Engineering Command is the Army's technology leader and largest technology developer. RDECOM ensures the dominance of Army capabilities by creating, integrating and delivering technology-enabled solutions to our Soldiers. To meet this commitment to the Army, RDECOM develops technologies in its eight major laboratories and research, development and engineering centers. It also integrates technologies developed in partnership with an extensive network of academic, industry, and international partners.

RDECOM provides the Army with an organic research and development capability. More than 17,000 Soldiers, civilian employees and direct contractors form this world-class team. As part of that team, there are 11,000 engineers and scientists, many of whom are the Army's leading experts in their fields. A fundamental characteristic of this workforce is the focus on the Soldier. Whether providing technology solutions to meet current operational needs or developing break-through technologies for the next generation, RDECOM stands at the forefront of what the Soldier eats, wears, fires, flies or drives.

## **ABOUT TARDEC**

Headquartered at the Detroit Arsenal in Warren, MI, TARDEC is the Nation's laboratory for advanced military automotive technology and serves as the Ground Systems Integrator for all DOD manned and unmanned ground vehicle systems. With roots dating back to the World War II era, TARDEC is a full life-cycle, systems engineering support provider-of-first-choice for all DOD ground combat and combat support weapons, equipment and vehicle systems. TARDEC develops and integrates the right technology solutions to improve Current Force effectiveness and provides superior capabilities for Future Force integration. TARDEC's technical, scientific and engineering staff lead cutting-edge research and development in Ground Systems Survivability; Power and Mobility; Intelligent Ground Systems; Force Projection; and Vehicle Electronics and Architecture. TARDEC is a major research, development and engineering center for RDECOM and an enterprise partner in the TACOM LCMC.

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A special Media Day is planned for Friday, Nov. 12. Those interested in attending can contact [Jimmy.Hafesjee@dsto.defence.gov.au](mailto:Jimmy.Hafesjee@dsto.defence.gov.au) or [jwray@brtrc.com](mailto:jwray@brtrc.com).

For more information about MAGIC 2010, visit us at <http://www.dsto.defence.gov.au/MAGIC2010/>. You can also follow us on Twitter @MAGIC2010Robots.

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