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## Press Release

Contact: ION National Office  
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FOR IMMEDIATE RELEASE  
9 A.M. EDT, FEBRUARY 6,  
2013

### **ION ANNOUNCES WINNERS OF THE THIRD ANNUAL ION AUTONOMOUS SNOWPLOW COMPETITION**

**The Institute of Navigation Satellite Division announces the winners of the Third Annual ION Autonomous Snowplow Competition during the Saint Paul Winter Carnival**

**Manassas Virginia, February 6, 2013** –The Institute of Navigation (ION) Satellite Division held its third Annual ION Autonomous Snowplow Competition January 24-27, 2013 at Rice Park in downtown Saint Paul, Minnesota as part of the 127<sup>th</sup> Saint Paul Winter Carnival.

Sponsored by The ION Satellite Division and held in cooperation with the ION North Star Section, the ION Annual Autonomous Snowplow Competition is a national event open to college and university students, as well as the general public, that challenges teams to design, build, and operate a fully autonomous snowplow using state of the art navigation and control technologies to rapidly, accurately and safely clear a designated path of snow.

Eight teams participated during the four day competition, each using state of the art navigation systems to plow two different snowfields.

Teams included students, partners from private industry and faculty advisors from Case Western Reserve University; Dunwoody College of Technology; Miami University (Ohio); Ohio University; The University of Michigan - Dearborn, and The University of Minnesota.

Teams were judged based upon their cumulative scores earned throughout the competition phases: 75% of the total score was based upon the plowing competition; and 25% of the total score was based upon the presentations and pre-event report.

First place was awarded to Ohio University's Avionics Engineering Center with students Samantha Craig, Ryan Kollar, Adam Naab-Levy, Pengfei Duan and Kuangmin Li with support from faculty advisors Dr. Frank van Graas, Dr. Wouter Pelgrum and Dr. Maarten Uijt de Haag who submitted their four-wheeled Monocular Autonomously Controlled Snowplow (M.A.C.S.). The first place prize included \$5,000 and a golden snow globe trophy. Ohio University also captured the Best Student Presentation Award that included \$500 and the "Golden Shovel" Award and the Best Written Report that included \$500 and the "Golden Pen" Award.



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Second place was awarded to the Miami University team “RedBlade” that included students Mark Carroll, Chad Sobota, Robert Cole, Richard Marcus, Harrison Bourne, Jamie Morton and Michael Harris with support from advisors Dr. Yu (Jade) Morton, Dr. Peter Jamieson, Steve Taylor. The second place prize included \$4,000 and a silver snow globe trophy.

Third place was awarded to the University of Michigan (Dearborn) team “Yeti 3.0” that included students Angelo Bertani, Zachary DeGeorge, Ahmed Alkirsh, Abdelqwee Yaffai, Mark Bajor, Craig Cowling, Cody Schmitt, Jacob Mack and Mengxing (Simon) Chen with support from faculty advisor Dr. Dr. Narasimhamurthi (Nattu) Natarajan. The third place prize included \$3,000 and a bronze snow globe trophy.

In addition, the first place team, Ohio University, has been invited to display their winning snowplow during ION GNSS+ 2013 conference September 16-20, 2013 in Nashville, Tennessee.

Sponsors of the second annual ION Autonomous Snowplow Competition included Honeywell, Inc., Alliant Techsystems Inc., Lockheed Martin Corporation, ASTER Labs, Inc., Space Exploration Technologies Corp., The Toro Company, Proto Labs, Inc. and U.S. Bank.

The Fourth Annual ION Autonomous Snowplow Competition will be held in January 2014 at the Saint Paul Winter Carnival, St. Paul, Minnesota. For more information, please visit [www.autosnowplow.com](http://www.autosnowplow.com).

### About ION

The Institute of Navigation is the world’s premier professional society dedicated to the advancement of the art and science of positioning, navigation and timing. The Institute is a national organization whose membership spans worldwide. Additional information about the ION can be found at <http://www.ion.org>.

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