

The Institute of Navigation  
Proudly Announces Its

# Annual Autonomous Snowplow Competition



## Interested In Sponsoring The Event?

**Help us continue to encourage students in the development of the art and technology of navigation, as well as science, engineering, and math**

**Sponsorship of the ION's Autonomous Snowplow Competition is welcome in any form!**

As a sponsor, your brand will be displayed at all events and your company can support via volunteering

### **Suggested forms of sponsorship:**

- **Funding:** All sponsor funds directly used to award prizes or support the competition
  - ◇ Requested funding is \$2500 or above
  - ◇ Student travel grants at \$500
  - ◇ Consider sponsoring an entire playing field or judging event
  
- **Volunteering:** Show your support in assisting the event operations
  - ◇ Like to meet and greet? Help host the Student Presentations evening
  - ◇ Good at setting up tents and organizing? Event Set-up is for you
  - ◇ Like to be part of the action and part of a team? Check out the Snowfield Judging and Pit Crew
  - ◇ Have an artistic eye? Record the event with Photography or Videography

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If you are interested in sponsoring this competition, please contact:

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Next Competition  
January 2019

For more general information check out our website:  
[www.autosnowplow.com](http://www.autosnowplow.com)



The Institute of Navigation (ION) is the proud organizer of the Annual Autonomous Snowplow Competition. This competition is operated by the ION North Star Section based in Minneapolis, MN, and includes ION members from Minnesota, North Dakota, South Dakota, and western Wisconsin. ION's Satellite Division directly sponsors the competition.

The contest objective is for teams to design a snowplow that will autonomously clear snow from a pre-defined field. The competition invites and challenges teams in high-performance autonomous vehicle guidance, navigation, and control. It is designed to encourage students that are interested in the art of navigation and in the general areas of science, technology, engineering, and mathematics.

Teams must build a vehicle to autonomously plow snow entirely from two snowfields in a set amount of time. The two snowfields have a straight single "I" shape and a double "I" shape. The teams can use augmentation systems, such as visual cues or GPS, to aid the vehicle's navigation system, however there will be no direct human control of the snowplow during its competition run.

The competition invites teams from colleges and universities, and is also open to the general public. As student involvement is a major objective of the competition, general public teams will be required to have at least one student as a contributing member and presenter of their design in all competition events, and all team members must be 18 years or older.

This year's annual competition is held in collaboration with Sidewalk Labs during late January in Toronto, Canada. The contest is a multi-day event during its competition week:

- Thursday – Teams present their final snowplow designs at the Student Reception
- Friday – Teams demonstrate their snowplow's operability and safety features
- Saturday – Full day of on-field competition, with teams clearing the snowfields using their vehicles

Judging is focused on the operation and performance of their snowplow vehicle's during the competition week, as it removes snow on different shaped courses.

Teams that accumulate the most points throughout the competition will be awarded cash prizes and trophies for their success, including the prestigious Dr. Nattu Golden Smile Award for the best sportsmanship demonstrated by a team.



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For Additional Information Please Visit  
[www.autosnowplow.com](http://www.autosnowplow.com)