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- Garmin
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## ION Mini-Urban Challenge

### *National High School Robotics Competition*

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The Institute of Navigation is the world's leading professional organization for the advancement of positioning, navigation and timing.

Enter the MINI-URBAN CHALLENGE

[www.MiniUrbanChallenge.com](http://www.MiniUrbanChallenge.com)



## ION Mini-Urban Challenge

### **2012 National High School Robotics Competition**

**ENTER YOUR SCHOOL'S TEAM TODAY!**



**The Premier Autonomous Navigation Competition**

[www.MiniUrbanChallenge.com](http://www.MiniUrbanChallenge.com)

## ABOUT THE ION MINI-URBAN CHALLENGE

The ION Mini-Urban Challenge is an annual high school competition sponsored by The Institute of Navigation (ION) and the Air Force Research Laboratory (AFRL) created to challenge high school students to design and operate a robotic unmanned car built from a LEGO® Mindstorms® Education kit that can accurately navigate through a LEGO® city.

Working with academic advisors and team mentors, the competition provides high school students experience in collaboration, problem solving, team building, and project and time management and acts to inspire and attract students to the engineering and navigation fields.

High school teams compete on a regional level. Winners of the regional competitions are invited to compete in the National Competition.

*“The ION Mini-Urban Challenge offers high school students a real-world problem requiring innovation, science and engineering.”*

*Dr. Mikel Miller, AFRL*

## NO COST TO SCHOOLS OR STUDENTS

The ION Mini-Urban Challenge is underwritten by the generous contributions of the competition’s sponsors. **There is no cost to the schools or the students to participate in the competition.**

Each high school team is provided with a LEGO® Mindstorms® Education kit, software and a site license.

ION will provide travel grants for teams that advance to the national competition being held at the Smithsonian’s National Museum of American History.

Trophies are awarded to the top teams from each region. The winning teams from the national competition earn cash prizes for their schools. See [www.MiniUrbanChallenge.com](http://www.MiniUrbanChallenge.com) for more details.



## ENTER YOUR SCHOOL’S TEAM TODAY!

Your students get practical experience in:

- Collaboration and team building
- Problem solving
- Engineering and technology
- Project and time management
- Presentation skills and public speaking

In addition to the technical challenges posed by the competition, teams must also prepare and deliver a technical presentation on their vehicle design. Presentations are graded on the team’s organization, clarity, technical relevance, and their ability to engage and capture the audience’s interest.

Non-technical students are encouraged to join teams to assist with the presentation, marketing and other project management functions.

Teams are placed based on their total scores; 70% of the total score is based on the navigation of the LEGO® city; 30% of the total score is based on the presentation given by the team and answers given during informal questioning.

Application forms are available at  
[www.MiniUrbanChallenge.com](http://www.MiniUrbanChallenge.com)



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