

## Zero Robotics Introduction

Zero Robotics Summer SPHERES Competition is a fun and flexible summer STEM program for middle school students. Over the 5-week program, participants will work in teams to learn about computer programming, robotics and space engineering while gaining hands-on experience working with and coding SPHERES (Synchronized Position, Hold, Engage, Reorient Experimental Satellites). The program culminates in a tournament where each team's SPHERE satellite will compete for spots to operate and race one another on the International Space Station. At the end of the summer program, participants will get to see SPHERES in space via a live feed and have a conversation with Space Station astronauts who "referee" the race.

## Grant Awards

Successful grantees of Georgia's Zero Robotics Summer Project are expected to implement the SPHERES curriculum at their summer middle school program. The Zero Robotics program is flexible and can be used to supplement an existing summer program, or as a standalone addition to a summer program. It is a 5 week, 15 hr/week minimum curriculum that can be adapted to a program's schedule. Both community- and school-based organizations that work with middle school students are encouraged to apply. Priority will be given to programs that work with students of diverse ethnic and socio-economic backgrounds. Applicants are strongly encouraged and priority will be given to those who identify capacity to engage STEM educators and/or mentors with broad experience in the STEM fields. Awardees will receive:

- Unique opportunities for students to work with leaders in the STEM field
- In-person and online training for staff member(s) to become the Zero Robotics Curriculum Coordinator
- Free online curriculum and resources for 10-20 middle school students to participate
- Access to NASA's STEM curriculum
- Free participation for students at Field Day at Georgia Tech and for students and families at the final event
- Mini-grants of \$500 to assist with implementation

## Important Dates

Since the SPHERES Projects culminates in a live competition aboard the International Space Station, the project must adhere to a consistent timeline. As long as programs commit to 15 hours per week, program times and days of operation may vary.

- |                           |   |
|---------------------------|---|
| • February 18, 2016       | ZP Invitation Released by Georgia Statewide Afterschool Network (GSAN)  |
| • February 29, 2016       | Bidder's Conference Call (Optional): 10:00 AM – 11:00 AM (EST)<br><b>Call in number: 712-432-0927 ID: 173381#</b> |
| • March 18, 2016          | Applications due to GSAN  |
| • March 28, 2016          | Awardees notified by GSAN   |
| • May 21, 2016            | Zero Robotics Curriculum Coordinator Training (Mandatory)   |
| • June 13, 2016           | Zero Robotics Summer Program Launch   |
| • Week of June 20, 2016   | Zero Robotics Field Day   |
| • July 11, 2016           | Zero Robotics Summer Program Final Week   |
| • Week of August 15, 2016 | Zero Robotics Competition aboard the International Space Station*   |

\*Please note that this date may be during the school year for Georgia school districts

ZERO ROBOTICS IS BROUGHT TO YOU BY THE GENEROUS SUPPORT FROM OUR SPONSORS:

