THE MALDEN Y

We believe that all kids deserve the opportunity to discover who they are and what they can achieve. That’s why, through the Y, hundreds of youth in our local community are cultivating the values that lead to positive behaviors, better health and educational achievement.

It is essential that today’s young people understand STEM topics. The primary goal of ZERO Robotics is to excite middle-school students about STEM, with the hope of encouraging them to pursue their studies in these fields so that they can enter STEM careers. In the first week of the program activities that allow students to move around are built into the curriculum and while students are programming in the third and fourth weeks, it is important to take frequent breaks and have fun!
WHAT IS ZERO ROBOTICS?
This summer the Malden YMCA will be offering an exciting science and technology program for middle school aged youth in partnership with MIT and the MA Afterschool Partnership. The 2018 Zero Robotics Middle School Summer Program is a five-week STEM curriculum that introduces students to computer programming, robotics, and space engineering, and provides hands-on experience programming SPHERES (Synchronized, Position, Hold, Engage, Reorient, Experimental Satellites). The program culminates in a tournament where winning teams’ SPHERES compete aboard the International Space Station (ISS). Middle school participants will get to see the SPHERES operate in space via a live feed from the ISS while NASA astronauts provide real-time commentary.

Zero Robotics Middle School Summer Program is provided through a partnership between the MIT Space Systems Lab, the Innovation Learning Center, and Aurora Flight Sciences.

Zero Robotics seeks to inspire our next generation of great minds by allowing them unprecedented access to space at the middle school level. By making the benefits and resources of the International Space Station tangible to students, Zero Robotics hopes to cultivate an appreciation of science, technology, engineering and math through healthy, immersive, collaborative competition.

If you have any questions, please contact Frank Molis, 781-324-7680, x232 or fmolis@ymcamalden.org.

COMPETITION INFORMATION
The Zero Robotics summer program is designed to cultivate interest in STEM. Participants compete to win a technically challenging game by programming their strategies into the SPHERES. Students’ programs control the satellites’ speed, rotation, and direction of travel. The students program their satellites to complete competition objectives, for example navigating obstacles, while conserving resources such as fuel. Each year’s game is motivated by a problem of interest to NASA and MIT. Participants will be able to:

1) Brainstorm strategies,
2) Apply math and physics,
3) Write computer programs,
4) Observe results in simulation,
5) Compete in online competitions

ZERO ROBOTICS SCHEDULE
The Zero Robotics program runs 15 hrs/wk for 5 weeks from July 10th – August 9th

Tuesday: 9AM-2PM
Wednesday: 9AM-2PM
Thursday: 9AM-2PM

ISS Final Competition: Target Date–August 10th –ISS Finals

Cost $285, ($250/YMCA members) for the entire 5 weeks. Space is limited, registration is on a first come basis.

Financial Aid is available

Name:_____________________
Address:____________________
City:_______________________ Grade: _____
Phone:_____________________ Email:____________________

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