CODE RED ROBOTICS MAKES A MARK THIS FALL

By POOJA VERMA

With the school year getting into full swing, the Ithaca High School Code Red Robotics team's presence in the Ithaca community has been strong at several community venues throughout the fall. Code Red members have been active doing volunteer work, community service projects, and demonstrations for the community.

Their largest volunteer project was at Taughannock Falls State Park, where more than 50 Code Red members spent an October afternoon trimming branches and removing leaves from the creek bed. The team also cleared an area that the park hopes to use for a wedding gazebo. The team made a huge appearance at Purity Ice Cream's Carrotmob event in September. Over 20 members clad in red t-shirts came with last year's robot, setting up banners and the robot's drive station. Several families with children clutching ice cream cones approached the demonstration site, where Code Red members were ready to talk to the parents and children about what Code Red does. Both adults and children alike were invited to drive the robot, as were the Carrotmob band and mascot.

But Code Red members aren't finished yet. On November 10, they participated in the Family Reading Partnership's Kids Book Fest at Boynton Middle School. The team brought along the past year's robot, Dr. Swoosh, to go along with the theme - Counting on Books. In addition, Code Red members are currently working on a project that will become an exhibit at the Sciencenter within the next month. The project is creating a Virtual Reality Sandbox, which uses the Xbox Kinect to track changes in sand levels, helping teach topography.

Why does a robotics team of high school students do all of these activities? Nothing about clearing trails has to do with robotics, so why do Code Red members spend hundreds of hours devoted to community service and demonstration events? It's all in the message of For Inspiration and Recognition of Science of Technology (FIRST), the global organization Code Red is a part of and which stands for exactly what Code Red tries to promote. Demonstration events are held specifically to reach out to young students, to show them about our world of innovation in science and technology. Community service is about giving back to the community that has supported the team for many years.

Code Red mentors several Lego League teams at area elementary schools, and offers programs for elementary and middle school students to introduce to science and technology. Code Red has been instrumental in starting teams in the Ithaca City School District, most recently at Northeast Elementary. The team also mentors teams at Beverly J. Martin Elementary, Fall Creek Elementary, Belle Sherman Elementary, Enfield, Caroline, South Hill Elementary, and Boynton Middle School.

"The gracious professionalism, engi-

Members of the Code Red Robotics Team proudly march.

PHOTO / ANDREA KURZWEIL

neering ethos, and close-knit camaraderie are really what define this program, and it has the potential to shape one's character and attitude both in the academic as well as in the personal arena," said David Lim '12, who was active in Code Red while at IHS.

However, Code Red members are ultimately robot-nerds at heart, and the Ra-Cha-Cha Ruckus event in Rochester was one they could not pass up. Ruckus is a mini-competition where teams from around the region are invited to use their previous year's robot in a rehash of the last year's game; in this case, Rebound Rumble. Ruckus is a way for new members (rookies) to get a chance to drive the robot in a competition setting and see what a competition at this scale can be like. "It gets the job done in getting rookies accustomed to robotics," said Joon Park '13, a senior in his fourth year on the team.

All of this constitutes the team's off-season. The build season begins in two months, starting at the annual kick-off where FIRST announces the game challenge for which the team must make a robot to complete. Teams then have six weeks of grueling work to create the robot. Code Red members work for four hours after every school day, as well as eight hours on Saturdays for each of the six weeks. The build season starts with design and strategy brainstorming, then transitions into manufacturing and assembling the final robot.

Code Red prides itself in being almost entirely student-run.

"We make all of the parts of our robot in the district's machine shop," said Rishi Verma '15, this year's head of machining team. "I think it's amazing that we can build an entire competition-ready robot from scratch just in a technology class-

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continued from p. 7

room."

However, the students are not alone. The team has over 20 mentors; experts in their respective fields who give their time to help move the process along. But as opposed to doing the work for the students, mentors encourage forward-thinking and problem solving. "We can't do it without mentors. Their experience and encouragement are essential in the process of design-ing a completely new and innovative robot each year," said Verma.

Code Red Robotics is an IHS student organization that is also an affiliate of the Ithaca Public Education Initiative (IPEI). IPEI is a not-for-profit organization that believes the education of every ICSD student is enhanced through community connections and support facilitated by IPEI for students and teachers through en-gagement, collaboration, gifts, and grants.

For further information on Lego League, FIRST, and Code Red Robotics, please email

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