

Tech stars

LEGO teams teach technological know-how — and fun

Let's face it — technology is here to stay and constantly changing. Kids who grow up today will always need to know how to use it, and most should know how to create it as well. STEM (Science, Technology, Engineering, Math) is the buzz term for the future.

Here in Vermont, where the pace is a little slower than elsewhere, kids can easily get lost trying to keep up.

There is a group of folks in Rutland trying to make sure that doesn't happen. They started a First LEGO League robotics team for girls and boys in grades 4-8 called the Rutland Robo-Rattlers. While there are three other First LEGO League teams in Rutland, the Robo-Rattlers are the only such team that is not affiliated with a school. They are sponsored by local businesses, with their primary support coming from Rutland Free Library.

First LEGO League is an international organization with more than 20,000 teams in more than 70 countries. According to its website, each fall a challenge is offered based on a real-world scientific topic. Last year's was 'Nature's Fury' and focused

on how to prepare for, survive through and rebuild from natural disasters. Each team must complete three activities related to the challenge and compete in a tournament.

The folks who formed the Robo-Rattlers team aim to help kids engage with STEM subjects, with an emphasis on fun. The team was created after a group of students attended an electronics engineering camp and really enjoyed it. Their parents were excited by the program and wanted to offer their kids more of the same. That's when the library offered to help.

Scott McCalla and his wife, Karen, are the coaches for the Robo-Rattlers team. According to McCalla, "The kids are learning engineering, beginning robotics, computer programming, teamwork, presentation skills, problem solving, sportsmanship and many other things. It's a very well-rounded program. Our specific goals are to make sure the kids all participate and have significant roles and say in the projects, all kids participate in the tournament, and all kids have fun."

Last year was the first year Vermont held its own state tournament, which happened in

November at Norwich University. Before the tournament, team members spend time building their robot and preparing their presentations. At the tournament, they perform the following activities:

- Do 3 runs with their robot in the Robot Game.
- Give a five-minute presentation on their innovative idea to solve a real world problem based on the theme.
- Give a robot presentation, where the kids discuss and answer questions about their robot and then do a short demonstration.
- Solve a "mystery challenge," where the team is taken into a room with only the judges (no coaches allowed) and asked to solve a quick problem to show that they understand the FLL Core Values.

Because each team can only have 10 members and there is such great demand, McCalla encourages those who are unable to be on his team to form their own team. The Robo-Rattlers and Rutland Free Library are willing to help. They're planning a mixer and information night during which parents who are interested in the program can learn more. That event will be held at 6:30 p.m. Tuesday, in the Fox Room at Rutland Free Library. Representatives from the Robo-Rattlers will give a presentation and handouts on their experience, budgeting, available resources and other points that would be helpful when



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The Rutland Robo-Rattlers of Rutland Free Library.

starting a team.

McCalla says it's easy to find interested kids for the program. Parents are encouraged to participate and help as the program is challenging, but don't let that scare you away. McCalla assured me that all participants (even parents) have fun in the program and learn a lot.

If you're a business, perhaps you would like to sponsor a new team. To start a FLL program, there are costs for registration, the resource materials, the robot kit, a laptop, supplies and other items that are necessary to meet all of the goals. The teams need sponsorships to make that happen. In turn, the team will put together sponsorship boards, T-shirts, and other ways to recognize the sponsors. You could also lend space for meeting, work and storage, as Rutland Free Library does. A third way to help is to give time and knowledge resources. Jeff Wenberg, the commissioner of Public Works, acted as a team mentor last year. He helped the team better understand the effects of flooding and natural disasters in a city such

as Rutland and what issues the city faces if or when that happens. Mentors give the kids a whole new and real perspective on an issue. You could also invite a team to do a demonstration at your business or organization. This allows the kids to "show what they know," answer questions and build their confidence in the program.

There have been tremendous positive outcomes from McCalla's team. Along with forging friendships and getting excited about STEM concepts, the team members are also learning valuable interpersonal skills such as working in groups, working as a team and listening to other people's opinions. McCalla stressed how proud he is of the growth he's seen in his team members.

For more information on First LEGO League robotics teams, you can visit www.firstlegoleague.org or for information on local teams, visit www.rutlandarearobotics.org. This site will be expanding soon to include the local First LEGO League teams. You can email Scott McCalla directly at scott.mccalla@gmail.com.



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