"3, 2, 1 - LEGO!" This enthusiastic phrase was on repeat last Saturday at Iowa's FIRST LEGO League (FLL) state competition held on the campus of Iowa State University in Ames, IA. 72 teams from around the state (including twelve from the Quad Cities) qualified to attend the event. Each team of 9-14 year olds was armed with a LEGO Mindstorms NXT robot they designed, built, and programmed themselves.

The results are in, and the Quad Cities has reason to be proud! Four of the twelve teams from our region received awards – BIG ONES!

Team "World Changers" (Trinity Lutheran, Davenport), brought home top honors with the Champion's award. Not far behind was team "Technical Difficulties" (Rivermont Collegiate, Bettendorf), winner of the third place Champion's Award trophy. Other big winners included team "Charged Up", (Rivermont Collegiate, Bettendorf) winning 1st place for Core Values, and the "Robodawgs" (Bettendorf Middle School) winning 1st place for their project.

Rivermont Collegiate's robotics coach, Rachel Chamberlain, praised the program, saying, "FIRST LEGO League provides a fun and creative platform for kids to learn basic engineering techniques. Students work really hard during the four month season, but it's all done in a fun, hands-on way that allows them to make discoveries every day with their team mates. It's a great way to learn!" Rivermont Collegiate had five teams at the regional competition in Davenport last month, three of which qualified for the state competition, and two who brought home with big wins.

"I'm so proud of all the teams from the Quad Cities." Says Chamberlain, "FLL teaches 'Gracious Professionalism' and the kids all know it's not about what you win, but about what you discover along the way. The trophies are neat (especially the ones made out of Legos), but what's even neater is the pride the kids feel when they talk about what they learned. It's music to my ears to hear them encourage their peers to participate next year. It's an experience they will never forget."

FIRST LEGO League is an international robotics competition for teams of two-ten students. This year there were over 20,000 teams in more than 70 countries, including over 400 teams from the state of Iowa. 56 teams from the Quad Cities competed in the regional qualifier last December at the Putnam Museum in Davenport, IA, and twelve teams were selected to advance to the state competition at Iowa State University on Saturday, January 19, 2013.

During the four month FLL season, students work together with their team to build a robot that can accomplish predetermined missions on a common playing field to earn points. Each team receives the same field with the same missions at the beginning of the season. With a 2 1/2 minute time limit, teams must figure out how to make the best use of their robot's time to earn as many points as possible. At the competition, teams go head-to-head in a race against the clock, and then add up points at the end with referees. The robots are completely autonomous, meaning they are preprogrammed and not controlled by any sort of remote or handheld device. The programming is done on the computer ahead of time, and then uploaded to the robots before the competition.

In addition to building and programming a robot, teams are tasked with creating an innovative solution to a real world problem to present in front of a panel of judges. This year's theme was "Senior Solutions" - solving problems affecting senior citizens. Students solicited the help of

local experts when designing their inventions and shared their ideas with members of the community before the competition to get feedback and advice.

The third and final piece of the FIRST LEGO League competition was Core Values. According to the First Lego League website, the FLL Core Values are the cornerstones of the FLL program. They are among the fundamental elements that distinguish FLL from other programs of its kind. By embracing the Core Values, participants learn that friendly competition and mutual gain are not separate goals, and that helping one another is the foundation of teamwork.

Harrison Brown, a 5th grader at Rivermont Collegiate, was on team "Charged Up" (winner of the Core Values award). "I'm proud that our team won the Core Values award." Says Brown, "This is actually a really important award. I feel like our team worked well together and had fun. That's probably why we won. If a team doesn't have strong Core Values, it would be hard for them to be successful because they wouldn't be able to work well together."

"The real life skills these kids learn through this program are priceless." Says Chamberlain, "We're not only teaching kids how to program and become future engineers, but we are teaching them how to problem solve, brainstorm, build presentations, and work on a team. These skills are invaluable and will cross over into many different areas of their life and future careers."

Although teams don't know details yet about next year's challenge, they do know the theme - "Nature's Fury". The 2013 season officially kicks off on August 27, 2013.

For more information about First Lego League, visit www.firstlegoleague.org . For more information about this year's championship at Iowa State University, visit www.isek.iastate.edu/fll
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