

[https://www.unionleader.com/news/education/first-robotics-kickoff-turns-high-schoolers-into-heroes/article\\_6d86ae70-8d47-5037-9ee9-d598dd034576.html](https://www.unionleader.com/news/education/first-robotics-kickoff-turns-high-schoolers-into-heroes/article_6d86ae70-8d47-5037-9ee9-d598dd034576.html)

## FIRST Robotics kickoff turns high schoolers into heroes

By Josie Albertson-Grove New Hampshire Union Leader  
Jan 4, 2020



People pull out their phones as R2-D2 from “Star Wars” arrives during the kickoff of the FIRST Robotics Competition’s new challenge, called “Infinite Recharge,” on Saturday at Southern New Hampshire University in Manchester. New this year, FIRST has teamed up with Lucasfilm and Disney to inspire young innovators.

Thomas Roy/Union Leader

MANCHESTER — For the hundreds of students and their adult mentors gathered in the Southern New Hampshire University field house, the FIRST Robotics Competition season kickoff was something akin to the premiere of a much-anticipated superhero movie. But in this movie, thousands of students around the world are the heroes.



The FIRST Robotics Competition was founded in 1989 by New Hampshire inventor and entrepreneur Dean Kamen — FIRST stands for “For Inspiration and Recognition of Science and Technology.”

At the annual kickoff event, FIRST reveals a challenge that robots must solve by navigating a course and completing a set of tasks. Students on robotics teams are tasked with building the bots, and race to finish the tasks and collect points in competitions.

At the kickoff, which was telecast to teams around the world, students were shown the game field and challenge details for the first time and received a parts kit made up of motors, batteries, control system components, construction materials, and a mix of additional automation components — with limited instructions.



Tim Roberge of Manchester holds up his son, Bennett, 5, who is part of FIRST Lego League Jr., during the kickoff.

Thomas Roy/Union Leader

This year’s challenge, called “Infinite Recharge,” features an asteroid shower heading for a city and the race to switch on a science-fiction shield against the asteroids.



Working with adult mentors, student teams will have to build robots that can collect “power cells” — yellow balls — and throw them into holes. The robots will have to precisely spin a colorful wheel, and pull down a high bar. Team members will control the machines for a portion of the course, but the robots will have to perform some of the tasks autonomously.

This year, FIRST is teaming up with Lucasfilm and parent company Disney as part of the Star Wars: Force for Change philanthropic initiative to inspire the next generation of innovators. Stars Wars droid R2-D2 made a surprise appearance at the kickoff for the occasion, to the delight of students and adults alike.

As they left the field house Saturday, team members were buzzing with excitement about the challenge ahead.

Meredith Wonson, 17, is on a team from Ipswich, Mass. She was excited to get started on the challenge, and to start working with her team again.



Dean Kamen, founder of FIRST Robotics Competition, runs on the field during the unveiling of the new challenge, “Infinite Recharge,” on Saturday at Southern New Hampshire University in Manchester.

Thomas Roy/Union Leader

Before she joined the robotics team, the 12th-grader said, she had been having a hard time in high school. "I was in a pretty bad place socially, mentally," she said. She found a community on the robotics team, and at the same time learned more about engineering.

This year, Wonson is the "human resources" lead of her team. The six-week race to build complicated machines gets intense, Wonson said. She will be helping the team build their robot, and be someone her teammates can talk to when they get stressed out.

Wonson said the engineering side of FIRST is only part of the challenge. At competitions, she said, teams have to scope each other out, select "allies" and work together to run the course. Networking and teamwork are central to the competition, she said.

"You can't win if you don't build relationships with other teams," she said.

Deanna Gallagher, the teacher who supervises the Ipswich team, said she is proud of helping build a team that welcomes all comers.

"This is a community that supports all kids," she said.





Cam Hallett, a senior at Hollis/Brookline High School, pulls up the online manual for the new FIRST challenge.

Thomas Roy/Union Leader

Gallagher said she hoped helping students learn engineering skills will leave them better prepared to confront everything from job interviews to climate change.

"Our generation is going to leave behind a lot of problems," Gallagher said. "The least we can do is give them some of the tools to solve them."

Isabelle and Franky Marchand coach and mentor a team of 35 students in Virginia, and drove to Manchester for the kickoff event. After the event, they were excited to get their team started on the challenge.

"The game is out of this world, and it's going to be so exciting to see a match," Isabelle Marchand said.

Franky Marchand said he found some of the same excitement in watching a robotics match as with watching sports — the skilled players at work, the tension of competition. Within that competition framework, he said, the students get a grounding in engineering skills and thinking, as well as experience working on a team. Perhaps the most important skill students learn, he said, was learning to let go of bad ideas with grace.

"It's an amazing training course for them," he said. "It's an amazing enlightenment for the kids."

**[jgrove@unionleader.com](mailto:jgrove@unionleader.com)**

---

**Josie Albertson-Grove**

<]