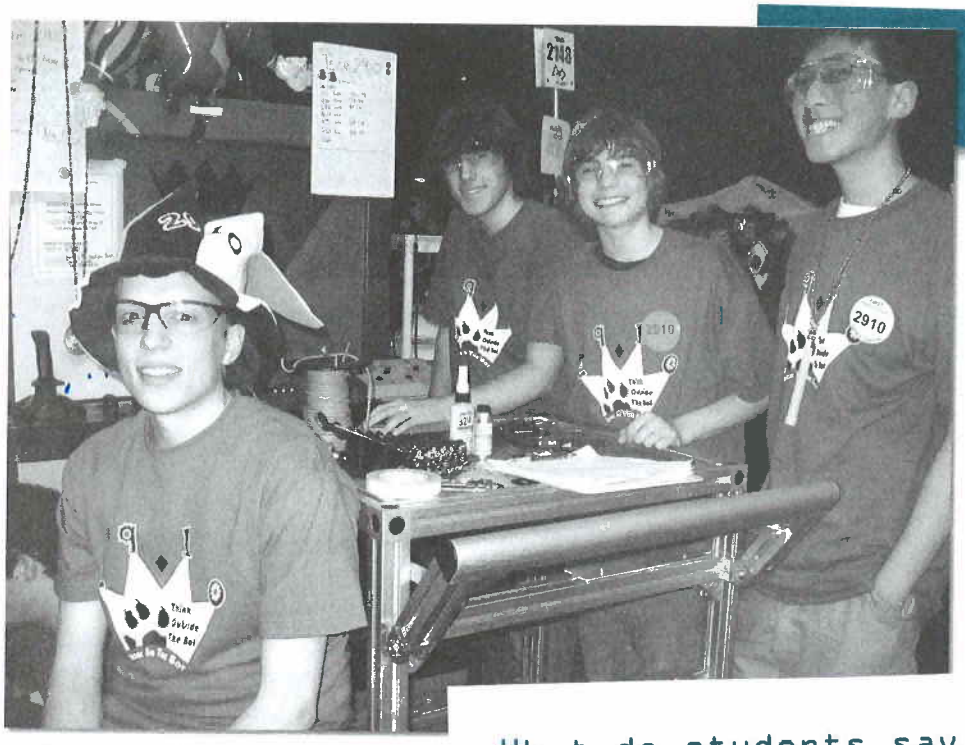
# Robotics

## H.M. Jackson High



**H.M. Jackson students worked more than 4,000 hours to build "Jack in the Bot," the robot they took to the World Competition as part of the *FIRST* Robotics program. Pictured in front — Jooris Poort. In back, from left to right — Jeff Goodhue, Christian Bundschu, Kai Hwa Yao.**

Nerves and excitement accompanied the H.M. Jackson High School *FIRST* Robotics team to their first competition last March. One of 64 teams gathered for the Microsoft Seattle Regionals at Key Arena, they were anxious to see how "Jack in the Bot" would perform in the three-minute matches. The task for this year's robot: to pick up moon rocks from a frictionless surface and shoot them into another robot's cart.

The team members laugh about it now. Something on their robot broke in every match, and they had to scramble for parts to rebuild it before the next match.

### "Gracious Professionalism" leads to cooperative competition

*FIRST* Robotics is not just a robot competition. A core principle of the organization is "gracious professionalism." It means that you help anybody you can. Teams are scored on the basis of cooperative competition, and team spirit and community involvement count as well. In spite of their robot's breakdowns, H.M. Jackson High's team was selected from 27

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### What do students say about their experience on the FIRST Robotics team?

**Colin Bundschu, senior**
"The best thing I have learned is about teamwork and solving problems. I am a changed person from six months ago. This has been such a great learning experience." Colin will be attending Harvey Mudd, a liberal arts college focused on math, science and engineering.

**Bryan Kim, junior**
"This experience opened my eyes to more opportunities. The club taught me to push myself." Bryan now plans to take AP physics, which will help him in college. He plans to attend the University of Washington.

**Charlie Franklin, sophomore**
"I used to need extra help in math, but love for robotics made the change." Charlie is going to take robotics at Sno-Isle Tech Skills Center next year. He had to interview for the class. "My background with the club helped me get in. I hope what I learn there will benefit the team."

**Monica Ilich, junior**
"This has been great. I made new friends, learned mathematical things – this is life-changing for anyone who joins. ... There is a place for anybody who wants to be involved. We try to accommodate for your special talents." Monica's favorite class is creative writing, and she had planned to become a video game designer. Now she is thinking about being a chemical engineer. "I was thinking of something less educationally demanding. Once I joined the club and learned more, I thought, 'I can do this.'"

**Kartik Rishi, junior**
"I thought getting involved would give me more experience for doing computer science later. It's given me lots of experience. I have taken physics and AP physics, but the amount of engineering physics we used this year was way beyond that." Kartik would like to attend Cal Tech, UC Berkeley, or the University of Washington.

# team "rocks" at regionals

## h School team 2910 named "Rookie All Stars"

### What is *FIRST* Robotics?

*FIRST* Robotics is an international organization whose vision is "to transform our culture by creating a world where science and technology are celebrated … where young people dream of becoming science and technology heroes."

*FIRST* – For Inspiration and Recognition of Science and Technology – was founded in 1989 to inspire young people's interest and participation in science and technology. It designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math ... while building self-confidence, knowledge, and life skills. Programs are also available for elementary and middle school students. (Hawthorne Elementary School competed for the first time last fall in a robotics competition called *Junior First Lego® League.*)

Key components to the *FIRST* program are learning how to work as a team, demonstrating team spirit and community involvement. Brian Gattman, lead mentor to Team 2910 comments, "*FIRST* is so much more than a robot competition. It's about changing and improving life in your community." Teams are evaluated for community service, and for promoting the *FIRST* program in schools. Team 2910 demonstrated their robot at Boeing.

"Gracious Professionalism" is part of the philosophy of *FIRST*. It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects both individuals and the community. With "Gracious Professionalism," fierce competition and mutual gain are not separate notions. Knowledge, competition, and empathy are comfortably blended.

The Chairman's Award, the highest possible award in the program, is bestowed on the basis of service to the *FIRST* organization and the community.

**Mentors from the community are a big part of the success of the *FIRST* Robotics program at H.M. Jackson High School. They contributed more than 6,000 hours to support student success. Pictured here are Bryan Kim, Arwen Reeves, mentor Dave Mumaw from Fluke, mentors Jooris Poort and David Wilson from The Boeing Company and Charlie Franklin.**

### But wait, there's more! Career Technical Education provides countless opportunities

*FIRST* Robotics is just one Career Technical Education activity available to Everett Public Schools' high school students. DECA (Delta Epsilon Chi Association) is an international association of high school and college students studying marketing, management and entrepreneurship in business, finance, hospitality and marketing sales and service. TSA (Technology Student Association) is devoted to teaching young people about technology and includes conferences and publications. All of these organizations are geared toward combining classroom learning with real world experiences.

### In the classroom

If students want to pick up a marketable skill or to jump-start their career, the Career Technical Education Program (CTE) is likely to have a course to fill that need. CTE offers 68 courses ranging from business programs such as Accounting or Business Law to Digital Photography, Drafting, or Introduction to Engineering. The Sno-Isle Tech Skills Center provides additional courses in five areas: Information Technology, Business & Marketing, Human Services, Science & Health, and Trade & Industry.

NATEF (National Automotive Technicians Education Foundation) auto certifications in four areas and certification on computer systems are also available through CTE programs. Tech prep college credits are available with some courses.