

FTC

FIRST Tech Challenge

Lower Kuskokwim FIRST Tech Challenge Robotics Tournament

April 23 -25, 2010

Thursday 4:30 PM - 8 PM • Friday 7 AM -9 PM • Saturday 7 AM - 2 PM

SPONSORED BY



SCHEDULE

Please note that this schedule contains only approximate times and is subject to change.

THURSDAY, APRIL 23

4:30 PM - Welcome and Introductions

5:00 PM - Team Dinner @ BRHS

6:00 PM - Pit Area Open. Robot Inspections

FRIDAY, APRIL 24

7:00 AM - Pit Area Open. Final Inspections. Engineering Notebook drop off

8:00 AM - Team Presentations. Guest Speaker

9:00 AM - Practice Round

10:00 AM - Qualifying Rounds

12:00 PM - Lunch @ BRHS

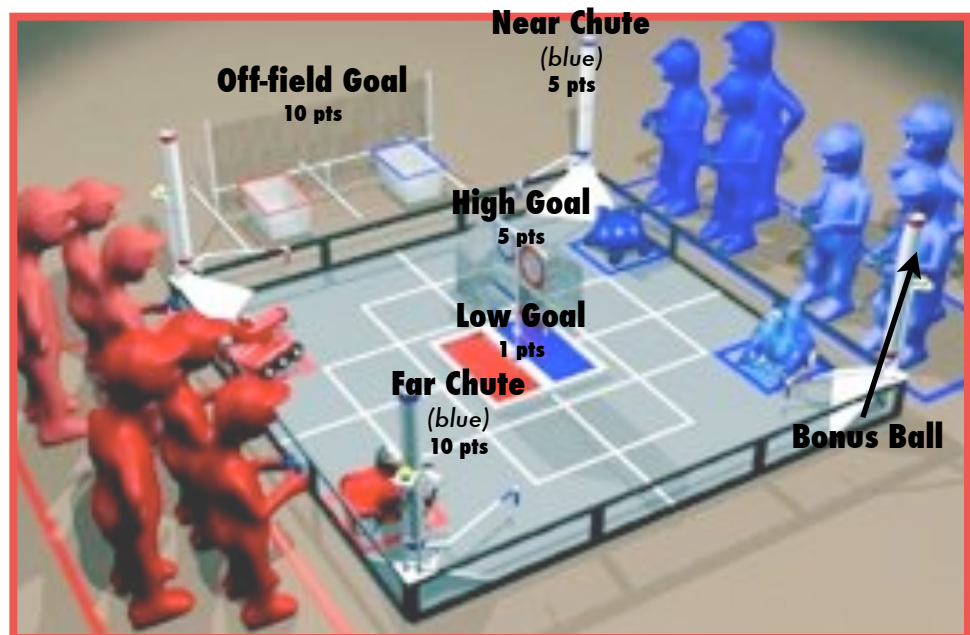
THE GAME - "HOT SHOT!"

Each **match** is 2 minutes and 30 seconds long, and consists of a 30 second **autonomous period** followed by a 2 minute **driver-controlled period**. Matches are played on a playing field set up as illustrated below. Two alliances (red and blue), composed of two teams each, compete in each match. The object of the game is to attain a higher score than the opposing alliance by shooting plastic balls (80 total) into different scoring goals.

During the **autonomous period**, no human control of the robot is allowed. Robots operate and react only to sensor inputs and to commands preprogrammed by the team. During the autonomous period, alliances can score points by releasing balls from their near (5 pts) and far (10 pts) chutes, and by shooting balls into the low (1 pt) and high (5 pts) goals. Any balls still in scoring position after the driver-controlled period will be counted again.

During the **driver-controlled period**, drivers can operate their robots and continue to shoot balls into the low and high goals for points. **End Game**, the final 30 seconds of the match, is the only time that teams are allowed to score in the off-field goals (10 pts) and put their yellow bonus ball (each team is given one) into play. The bonus ball doubles the score of all white balls in the goal into which it lands.

hot!
shot



Special Note -- There are many penalties, rules and game intricacies that are not listed above. **Do you notice teams intentionally scoring for the opposing alliance?** There are certain strategic advantages to keeping the score close. Ask one of the teams if you want to learn more or check out the complete game rules at www.usfirst.org!

FRIDAY, APRIL 24 *continued*

1:00 PM - Qualifying Rounds

2:45 PM - Judges Interviews. Pit Area Open.

5:00 PM - Dinner @ BRHS

6:00 PM - Qualifying Rounds

SATURDAY, APRIL 25

7:00 AM - Pit Area Open

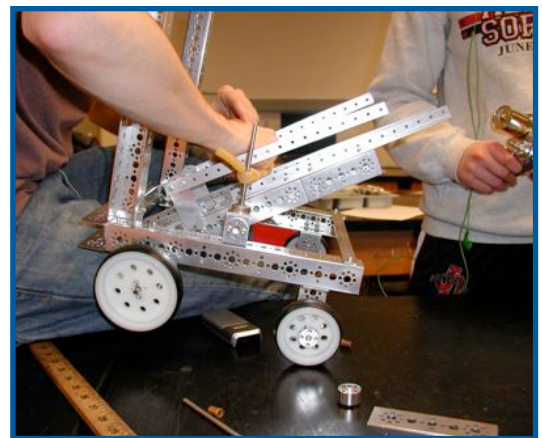
9:15 AM - Alliance Selection

10:00 AM - Elimination Round

10:30 AM - Multimedia Presentation

11:00 AM - Closing Ceremony

12:00 PM - Lunch @ BRHS. Clean up & Pack up!



FIRST Tech Challenge AWARD CATEGORIES

INSPIRE - Honors the team that truly embodies the 'challenge' of the FTC program. They are 'role models' in the FIRST community. This team is a top contender for all other judging categories and is a strong competitor on the field. Inspire award winners are an inspiration to other teams, acting with gracious professionalism both on and off the Playing Field. They receive an automatic invitation to the FTC World Championship in Atlanta, GA.

WINNING ALLIANCE - Awarded to the teams in the winning alliance represented in the final match. The captain team of this alliance will receive an automatic invitation to the FTC World Championship in Atlanta, GA.

FINALIST ALLIANCE - Awarded to teams on the runner up alliance represented in the final match.

DESIGN - Recognizes the team that best incorporates industrial design elements into their solution, a solution that is both aesthetic and functional.

THINK - Awarded to the team that best reflects the "journey" the team took as they experienced the engineering design process during the build season (as demonstrated in their Engineering Notebook).

SPECIAL RECOGNITION FOR CREATIVITY AND LEADERSHIP - Special LKSD Award recognizes the team that created the logo and/or event name used for the tournament.

RISK MANAGEMENT - Awarded to the team or individual that exemplifies awareness of or application of safety guidelines, and actively shares their knowledge of industrial safety with other teams, their school and their community.

TEAMS

3498 Kwigillingok Team A *Jennifer Bacus* • 3498 Kwigillingok Team B *Jennifer Bacus*
 3496 Napaskiak *Adam Bode* • 3500 Akiuk Three Stoogettes *Vicki Nechodomu*
 3499 Tununak Coasters *Derek Wold* • 3501 Newtok Jaegers *Naomi Olson*
 3497 Kwethluk Jacks *Aaron Kennedy* • 2497 Kwethluk Magic Monkeys *Aaron Kennedy*
 3502 Oscarville J-CLANC *Christina Powers* • 3792 Bethel Regional HS *Mike Husa*

FIRST Learning...

never stops building upon itself, starting in elementary schools at age six and continuing through middle and high-school levels up to age eighteen. Students have the opportunity to progress from one level to the next, bringing with them mastered skills and concepts to aid in the challenge of learning new and more difficult ones.



The newest program in FIRST introduces the youngest students to the exciting worlds of science and technology. Just like FLL, this program features a real-world challenge to be solved by research, critical thinking, and imagination. Guided by adult coaches, students work with LEGO robot-game bricks and moving parts to create solutions and present them for review.

Younger elementary-school students get to

- Design and build challenge solutions using LEGO Education Simple & Motorized Mechanisms Set
- Apply real-world math and science concepts
- Research challenges facing today's scientists
- Learn team-building and presentation skills
- Develop Show-Me posters

Introduces younger students to real-world engineering challenges by building LEGO-based robots to complete tasks on a thematic playing surface. FLL teams, guided by their imaginations and adult coaches, discover exciting career possibilities and, through the process, learn to make positive contributions to society.

Elementary and middle-school students get to

- Design, build, and program robots using LEGO MINDSTORMS® technology
- Apply real-world math and science concepts
- Research challenges facing today's scientists
- Learn critical thinking, team-building, and presentation skills
- Participate in tournaments and celebrations
- Earn a place in the World Festival

More geographically accessible, FTC is designed for those who want to compete head-to-head using a sports model. Teams of up to 10 students are responsible for designing, building, and programming their robots to compete in an alliance format against other teams. The robot kit is reusable from year-to-year and is programmed using a variety of languages. Teams, including coaches, mentors, and volunteers, are required to develop strategy and build robots based on sound engineering principles. Awards are given for the competition as well as for community outreach, design, and other real-world accomplishments.

High-school students get to

- Design, build, and program robots
- Apply real-world math and science concepts
- Develop problem-solving, organizational, and team-building skills
- Compete and cooperate in alliances at tournaments
- Earn a place in the World Championship
- Qualify for close to \$7 million in college scholarships

Dubbed a "varsity sport for the mind," FRC combines the excitement of sport with the rigors of science and technology. Under strict rules, limited resources, and time limits, teams of 25 students or more are challenged to raise funds, design a team "brand," hone teamwork skills, and build and program a robot to perform prescribed tasks against a field of competitors. It's as close to "real world" engineering that a student can get. Volunteer professional mentors lend their time and talents to guide each team.

High-school students get to

- Learn from professional engineers
- Build and compete with a robot of their own design
- Learn and use sophisticated hardware and software
- Be exposed to design, project management, programming, teamwork, strategic thinking, and "Coopertition"
- Earn a place in the Championship
- Qualify for close to \$10 million in college scholarships

All FIRST programs practice "Gracious Professionalism"

Contact FIRST for more information

WWW.USFIRST.ORG/CONTACTUS

603-666-3906

*Special thanks to Marc Leinberger & Dave Patterson
for sharing the FIRST spirit and making this happen!*

Stay Informed at JEDC.org!

Check back on the JEDC website for more STEM events and information. See photos and results from today's tournament.

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