

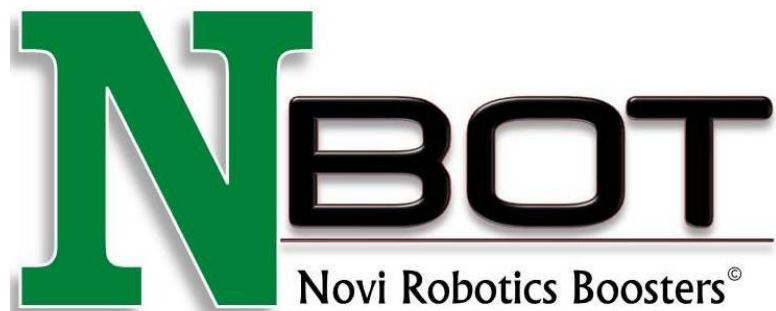
K - Grade 3
**FIRST.
LEGO
LEAGUE JR.**

Upper Elementary
**FIRST.
LEGO
LEAGUE**

Middle School
**FIRST.
TECH
CHALLENGE**

High School
**FIRST.
ROBOTICS
COMPETITION**

2017 **FIRST** ROBOTICS INFO NIGHT





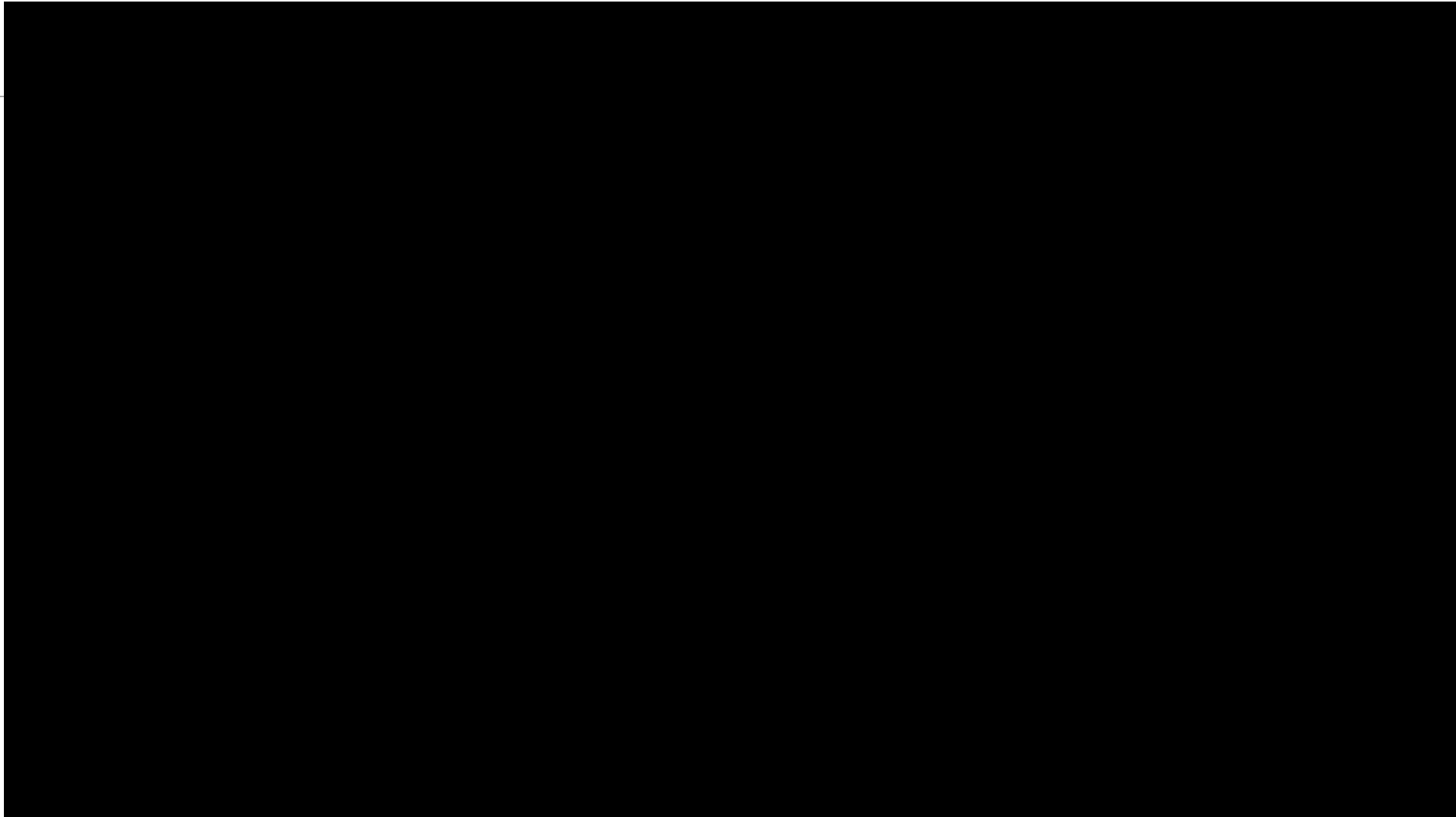
WHAT IS *FIRST*®?

FOR INSPIRATION & RECOGNITION OF SCIENCE & TECHNOLOGY

- Promotes interest in STEM among kids/students
- Hosts competitive robotics competitions
- Teaches technical, business, and life skills
- Encourages community outreach and promotion of STEM by teams
- Over **\$20 MILLION** in FIRST-specific scholarships



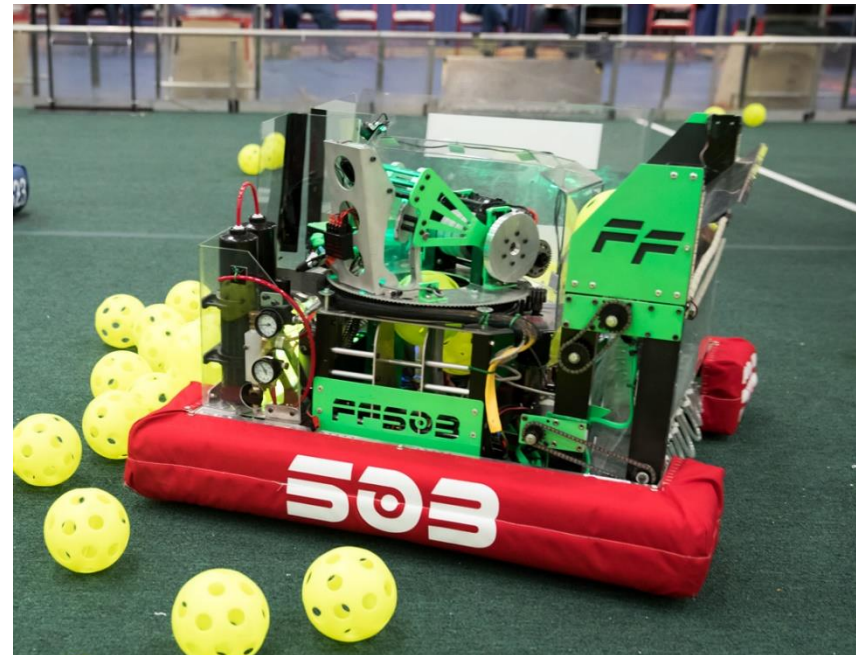
More than a Robot Video





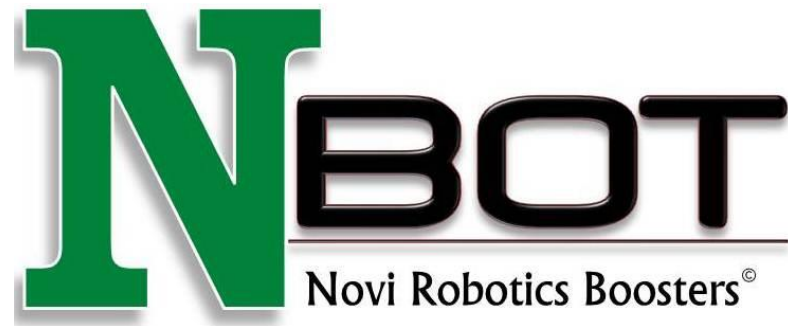
WHO IS FROG FORCE?

- FRC team of 17 years
- Sponsored by Magna Seating - Founding sponsor
- 100+ High school students
- Completely volunteer driven
- 2005 World champions
- World record holder for most Regional / District Champ. Chairman's Awards
- 2017 Season: 3 Silvers, Districts Quarterfinalists at FIRST Championship
- Leads Novi Progression of Programs





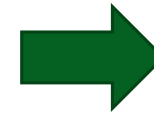
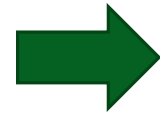
What is NBot?



- MDE grant submission
- Grant processing through NCSD
- 100% volunteer-driven
- Provide forum through which Novi teams can form
- NBot *does not* place students on teams
- Provide technical mentorship as needed

- Liaison between teams and NEF
- Provides a way for teams to receive support from sponsors via a tax exempt organization [501(c)3]
- Enabled teams to receive over \$18,000 in sponsorship over several years

FIRST ROBOTICS HIERARCHY



firstinspires.org

- Program information
- Program resources
- Team registration site
- Kit of Parts purchase

firstinmichigan.org

- Administers programs in MI
- MI-specific information
- Events/Competitions
- Local resources

frogforce503.org

- Entity created by Frog Force
- Support FIRST programs in Novi

FIRST IN MICHIGAN PROGRESSION OF PROGRAMS



K - Grade 3

FIRST
LEGO
LEAGUE JR.



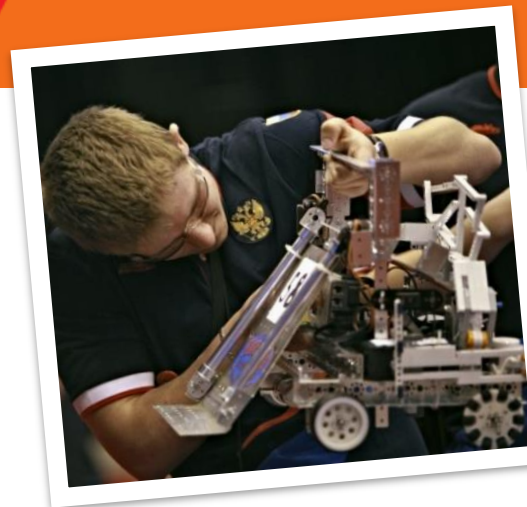
Upper Elementary

FIRST
LEGO
LEAGUE



Middle School

FIRST
TECH
CHALLENGE



High School

FIRST
ROBOTICS
COMPETITION





FIRST
LEGO
LEAGUE JR.



Age Group	Kickoff	Season	Team Size	Cost/Team
Grades K-3	Early August	Fluid; 6-8 weeks	6 students	\$99 reg. fee + \$250 kit



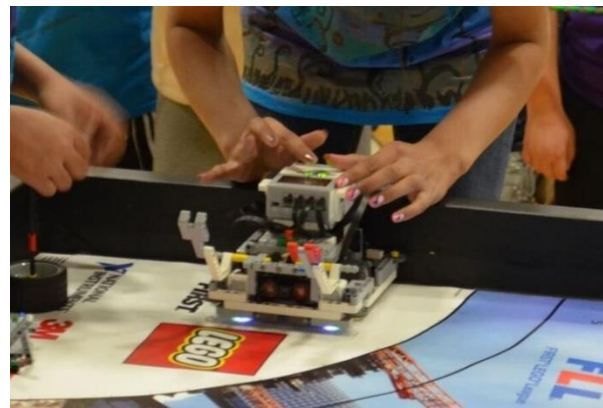


***FIRST* LEGO LEAGUE Jr.**

- Two part focus:
 - Design and build challenge-related model using LEGO kit components
 - LEGO We-DO kit option teaches beginning programming skills
- Share at Expos
- Create a Show-Me poster (similar to Science Fair posters) and practice presentation skills
- Encourages a culture of sharing and learning from others



Age Group	Kickoff	Season Ends	Team Size	Cost/Team
Grades 4-6	Late August	Early December	10 students	\$225 reg., \$545 for Kit





FIRST LEGO LEAGUE

- Three part focus
 - Design, build, and program a robot using LEGO Mindstorms kit to perform missions on a themed table-top playing field (Robot)
 - Present a research project centered on real-world theme (Research)
 - Learn and demonstrate the FIRST Core Values (Values)
- Teams attend one local Qualifier in fall, possible advancement to States in December

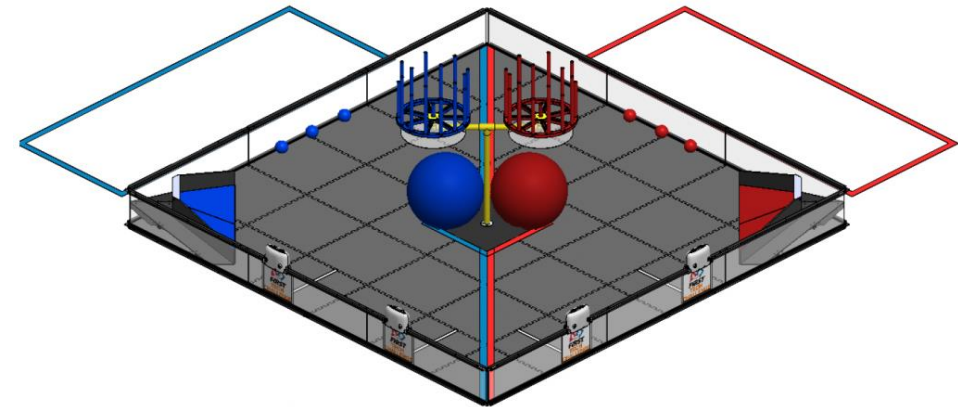
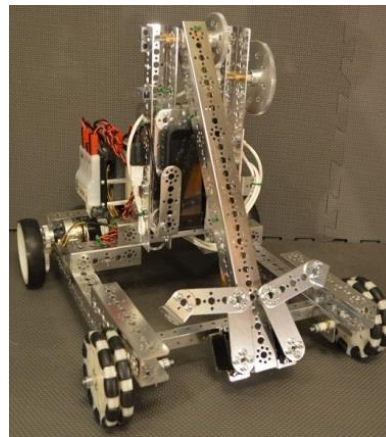




FIRST TECH CHALLENGE



Age Group	Kickoff	Season Ends	Team Size	Cost
Middle School	Sept. 9th	End of December	15 students	\$575 for kit/reg.





FIRST TECH CHALLENGE

- Teams design, build, and program an 18" x 18" robot to compete in a FIRST-designed game on a 12' x 12' playing field
- 2 v 2 sports-like competition with judges, refs, and awards
- Platform uses TETRIX kit, Android control system, Java
- Judging includes Engineering Notebook, robot design & build, outreach, teamwork
- Teams formation is facilitated by NBot
- NBot offers registration and kit rental programs for \$575



FIRST ROBOTICS COMPETITION



Age Group	Kickoff	Season Ends	Team Size	Sign Up
High School	First Sat. in January	End of April	Unlimited	Novi HS reg. (fall)



FIRST ROBOTICS COMPETITION



- \$16.5 million in dedicated FIRST college scholarships
- Perform sport-like tasks on arena floor with large remote-controlled robot build from custom parts
- KOP valued at over \$15,000
- Mentors work side-by-side with students
- Community Outreach
- Competitions are 3 v 3 with random pairings, until elimination rounds. Top seeded teams draft partners to play in elimination rounds.



Coach/Mentor Roles

Potential Parent Roles:

- Host
- Head Coach
- Build and Programming Mentors
- Core Values Mentor
- Administration

- Desire to work with children
- Willingness to learn along with team
- Inspire not Educate
- Brings technical or non technical expertise to the team
- Help the team set realistic goals
- Facilitate meetings and coordinate work
- Relay guidelines and game rules
- Encourage kids to take risks and invent
- Students do as much of the work as possible
- Opportunity to make choices both good and bad
- Model respect for every team member and his/her ideas

TEAM DEMONSTRATIONS



FRC:

503 Frog Force

FTC:

6134 Black Frogs

6225 Synergy

10477 Rapid Robots

FLL:

4182 Techno Tadpoles

23912 Novi Robots

24096 Thunderbots

17990 RoboChamps

Jr. FLL:

7677 Polli-Bots

7961 TeamWildlife 6



frogforce



frogforce503.org



frogforce@frogforce503.org

CONTACT INFO

*Questions?
Comments?
Concerns?*

**Mark your calendars:
Team Formation Meeting
6:30 PM - June 8, 2017
Novi High School Atrium**