2016

Team

Neutrino

FIRST Robotics Team #3928

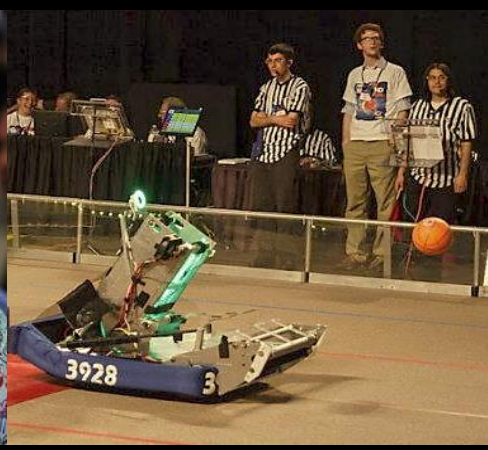
FIRST STRONGHOLD SM

What's FIRST?

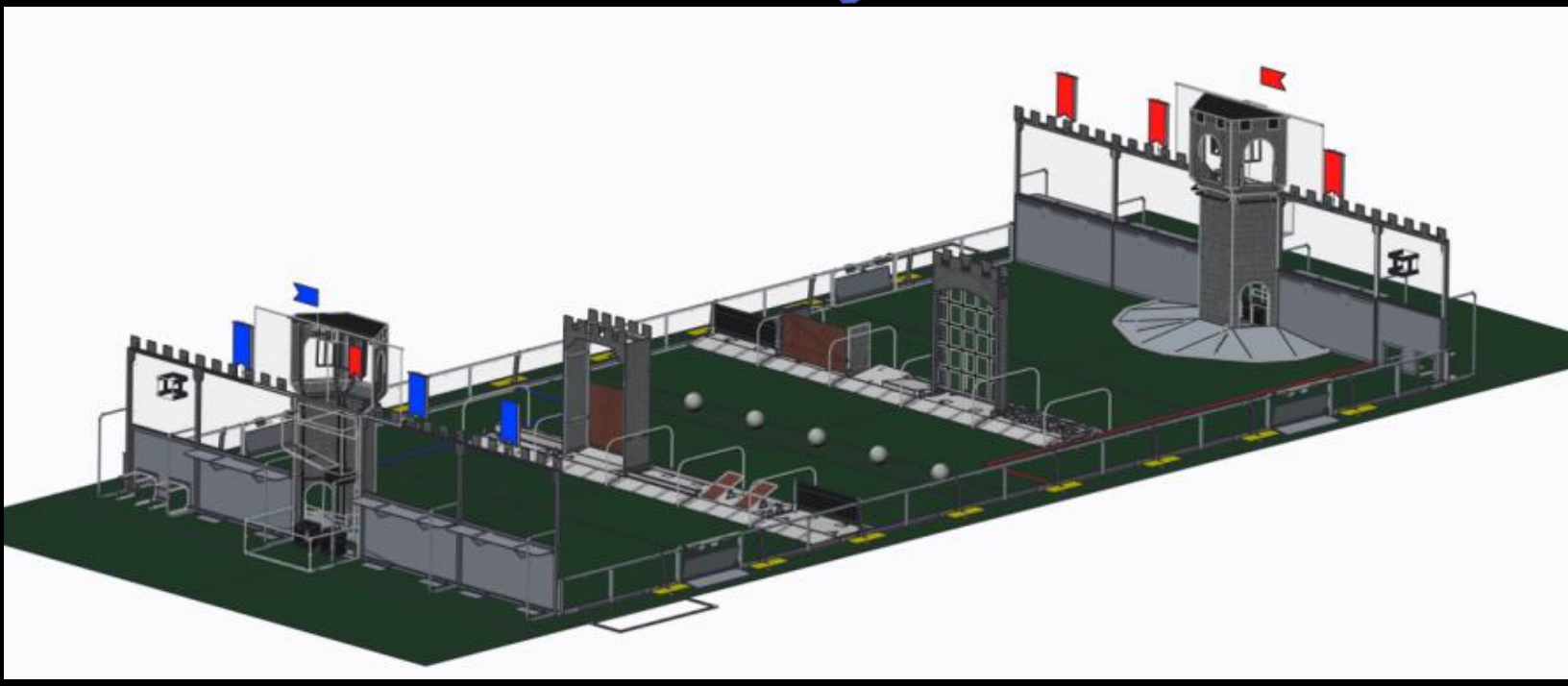
FIRST® is a not-for-profit organization that designs fun, motivational programs to help young people aged 16-18 discover and develop a passion for Science, Technology, Engineering, and Math through challenging robotics competitions.

The Mission of FIRST

Is to inspire youth to be the science and technology leaders of tomorrow by engaging them in exciting Mentor-based programs that build their skills, inspire innovation, and foster well rounded life capabilities including self confidence.



FIRST STRONGHOLD



The Quest

• Robots operate independently for first 15 seconds of the Quest
— Alliances score points by:
  • Reaching opponents defenses
  • Crossing defenses
  • Scoring boulders through goals in the opposing tower
• Human drivers take control for the final 2 minutes and 15 seconds controlling their robot to:
— Defend their castle
— Retrieve boulders
— Defeat defenses
— Score goals from the opponents' courtyard in tower
— Capture and scale the opponent's tower

The Tower

• Openings in the tower are available for robots to score boulders
— Scoring boulders reduces a tower's strength as indicated by decreasing tower lights
— The tower's flag will drop when enough boulders are scored and then the tower can be captured at the end of the Quest

The Outer Works

(outermost line of fortification)
• Eight defensive options (over 18,000 possible field configurations)
— One permanent (the low bar)
— One chosen periodically by the audience
— Three selected by Alliances just before each Quest begins
• Once the Quest begins
— Illuminated lights on each defense reduce when an opposing robot fully crosses it for first time
— These lights go dark after the defense has been crossed a second time, signaling it's considered damaged
— Once any four of the five defenses are damaged, the fortifications are considered breached and the charging Alliance is rewarded with points

The Capture

• During last 20 seconds of the Quest, robots may surround and scale the tower to capture it
• When capture is successful, their flag is raised on the opposing tower and even more points are earned

Team History

Team Neutrino started with one of our students being invited to attend the FIRST Minnesota North Star Regional by her grandfather, a mentor on team #2977. After being inspired by the mission, community, and the competition, she decided it would be great to have a FIRST Robotics team in her area. She began with her school's engineering club and writing a proposal to the principal. After gaining permission, it became apparent that the team needed a coach, mentors, and funding. With the help of her mother, they applied for the JCPenney's grant for rookie teams. After contacting the regional director for this information, they connected with a student at Iowa State University looking to start a FRC team. It was a match made in heaven. The team then started having meetings before gaining students to work out the details like how the team would run and space and funding issues. After this, the team was ready to add students. They spread the news that Ames, Iowa had brought back a FIRST Robotics team. Neutrino then gained the dedicated mentors, students and coach they have today.

After the 2012 season was over, the team's main workspace at Ames High School was disbanded so alternative plans were needed. Fortunately enough for the team, they were invited to join the Story County 4-H Program as Iowa's first 4-H FRC Team! The team was excited to partner up with ISU Extension Outreach for that year, as well as all future years.

2013 Team Picture

In 2013, Team Neutrino competed at the Greater Kansas City Regional and the Minnesota North Star Regional. At the Kansas City Regional the team was ranked 9th, chosen to play with the 2nd seeded alliance, and recipients of the "Excellence in Engineering" award. At the North Star Regional the team was undefeated during the qualifying matches and finished as 1st seed. Team Neutrino won the "Innovation in Control" award and was honored to participate in the Indiana Robotics Invitational with 68 of the top ranked teams in the world. At the end of the 2013 season Team Neutrino was ranked in the top 3% of teams worldwide.

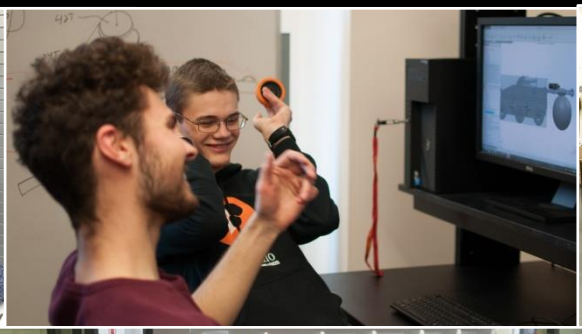
In 2014, Team Neutrino competed in the Kansas City regional and the North Star regional again, and earned quarterfinalist status at both. At the North Star regional, the team was awarded Engineering Inspiration, which is given to the team with outstanding success in advancing respect and appreciation for engineering within their community. This award earned Team Neutrino a paid trip to the World Championships in St. Louis!
In St. Louis we had a win-loss record of 6-4, and during alliance selection we were picked to be the 4th robot on the 4th seed alliance (in the Newton division)! We ended up being semifinalists on the Newton field (similar to the Sweet 16 in March Madness).

2014 Team Picture

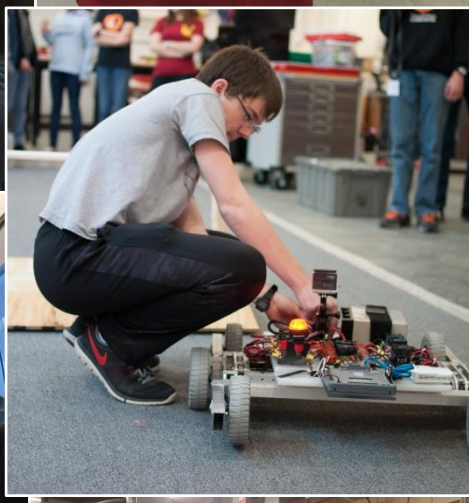
2015 Team Picture

For our 2015 season, Team Neutrino went to the Central Illinois and North Star regional competitions. The team placed as quarterfinalists in both, and team member Dagney Paskach was awarded the Dean's List Finalist Award at North Star. During the off-season event Cowtown Throwdown, Team Neutrino was chosen by the #2 alliance, who ended up winning the competition.

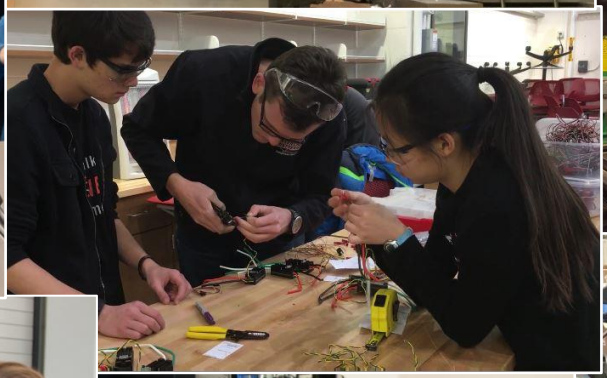
Meet the Team!

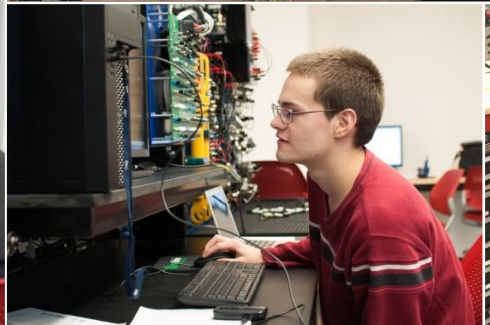









Build Season
2016

Pre-Season
2016

Marketing
2016

Finances
2016

Newsletters
2016

Team Documents

2016