167 Iowa City Robotics

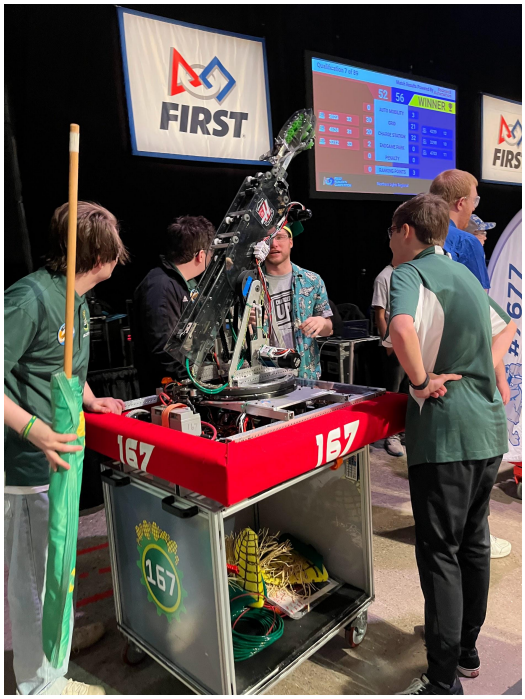
February 2023 Newsletter

Kickoff for the 2023 season occurred on January 7th. This season's game is named CHARGED UP where teams recognize the essential role of energy in "keeping our world running." The game this season involves moving cones and cubes and placing them at correct junction heights for scoring. Another element of this season's game involves a 'teeter-totter' type of balancing board where robots need to park to 'charge up.' Team members have been working diligently on preparing for the Duluth Regionals from March 1st through 4th. As of early February, our business sub-team has successfully submitted their essay and short answer responses for the Impact Award where they detail the advances they've made to demonstrate being a team worth emulating. The Impact Award, formerly known as Chairman's Award, is the most prestigious award in the FIRST, "it honors the team that best represents a model for other teams to emulate and best embodies the mission of FIRST."

Build Season

Build season began by creating plywood models of the game field and pieces. We are using these to test and prototype different ideas for our final robot. Prototyping took up the first two weeks along with sketching and CAD designs. This season we have elected to design a robot that has a low center of gravity for balancing on the charging station, a long extension, and a drivetrain that can be both fast and precise. Keeping this season's requirements in mind we have elected to design a robot with an extendable arm that sits on a turntable to pivot. Robots this season need to be able to reach roughly 5 ft to reach the highest junction height. The armrests on a turntable style of pivot to

allow greater maneuverability. Programming subteam has worked on creating an autonomous routine for the robot that will be able to autonomously balance on the charging station. The robot has successfully balanced on our wooden prototype with accuracy, but further changes will be made at the Duluth Regionals as the competition charging station differs from the prototype.



Spring Events

Check our calendar for more information.

Corndog Classic Scrimmage (February 25th)

167 is going to be attending a scrimmage in Cedar Falls. This scrimmage is designed to help teams see what real competitions are going to be like. Additionally, this is a great opportunity to see other teams strategies and robot designs. We hope to learn from the event to better prepare for the Great Lakes Regional.

Great Lakes Regional (March 1st - 4th)

Great Lakes Regional will be the first competition that 167 will compete in this season, it will be in Duluth Minnesota. We will be competing for the Impact Award and overall robot performance. This will be the first competition of the season for Iowa City Robotics and we hope to place highly.

Iowa Regional (March 23rd - 25th)

Iowa Regional will take place at the University of Northern Iowa. Depending on performance at both the Great Lakes Regional and Iowa Regional, 167 could advance to the World's Championship which takes place in Houston Texas.

About FIRST Robotics Competition

FIRST Robotics Competition gives high school students and their adult mentors the opportunity to work and create together to solve a common problem. Teams of students are challenged to design, build, and program robots and compete for awards, while they also create a team identity, raise funds, hone teamwork skills, and advance respect and appreciation for STEM within the local community. Beyond game play itself, students are rewarded by team achievements – in robot design and programming, demonstrating community outreach, Gracious Professionalism®, and the ability to overcome obstacles. Winning is always secondary to the quality of the overall experience in Robotics.

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