

Build Season Week One StuyPulse Team 694 Newsletter

Stuyvesant High School's FIRST Robotics Team



Kickoff

It's that time of the year again -- build season! On Kickoff, team members came to school to watch the live broadcast of the 2018 *FIRST* Robotics Competition game, *FIRST POWER UP*. After watching the game reveal and field tour videos together, the team reviewed the game manual and rules. After a potluck-styled lunch, team members split into smaller groups to discuss possible strategies and mechanisms for the new game, then came back together for a final discussion.



Marketing

Marketing started off the build season with an organized plan of what they had to accomplish by the end of Week 1. This year, marketers decided to revive three different video series: *FIRSTstories*, *AskStuyPulse*, and *FIRSTthoughts*. *FIRSTstories* is a video series where mentors and alumni share experiences and stories from their *FIRST* journeys. *AskStuyPulse* is a collection of how-to videos where team members from different departments teach teams how to do various tasks that are crucial for a team's success. *FIRSTthoughts* is a selection of videos that gives advice to rookie teams and teaches them essential skills for build season and beyond. Marketing will also be releasing weekly vlogs that will update our sponsors and followers on what the team has accomplished each week. Marketers also worked on different awards, including the Chairman's Award, Entrepreneurship Award, and the Woodie Flowers Award. They also planned future events such as Stuy Social and worked on making the FLL Mentoring Network a reality.

Software Engineering

With the new game came new control systems. For the first few days of week 1, the software engineers installed software updates, flashed roboRIOS, updated radios, and researched the new TalonSRX interface and game data readings. The software engineers also wrapped up their newbie project which was to recode Rafael, last year's robot. They also began looking into sensors and writing up proof of concepts for them; they experimented with VEX line and sonar sensors, gyroscopes, encoders, and Arduino sonar sensors. Besides testing sensors, software engineers also helped the engineers work on their drivetrain prototype by testing their mechanism. Lastly, software engineers added documentation for computer vision and began the proof of concept for detecting power cubes.



Engineering

The team hit the ground running this season. After the Kickoff strategy meeting on Saturday, the team had a design meeting on Sunday to discuss ways to accomplish various portions of the game, and identify what prototypes will be built for this season. After that, members chose their prototype group and went straight to work. Currently, members are working on prototypes to acquire power cubes, score power cubes on the switch and scale, and various ways to climb. A lot of progress has been made so far on the prototypes, with many groups having already built a proof of concept, a robot-size prototype, and a CAD. With Week 2 upon us, Engineering plans on continuing this pace and having all the prototypes finished by the end of the week, at which point they will decide on the final robot design.



Important Dates

CAD Marathon – January 20th – 21st

Central New York Regional – March 1st - March 4th

New York City Regional – April 5th- April 8th

Contact us!

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