



Iowa City Robotics

2024 Crescendo Newsletter

On January 6th, FIRST announced our annual FRC game, kicking our team into second gear as we prepare for competition. Even throughout the offseason, we have been busy working on new STEM-based initiatives and projects. In this letter, we are excited to share our accomplishments and plans - both on and off the field - as we enter the 2024 season!

Build/Robot Related

This year's FRC game, titled "Crescendo," is a completely new challenge for our team to tackle. This game will be centered around launching foam rings called "notes" into various scoring locations called "amps." Additionally, teams will be attempting to suspend their robots on swinging chains in order to achieve additional points. To start off our official season, our team holds a kickoff meeting, where team members, parents, mentors, and FIRST alumni can explore and discuss the new game. After this meeting, the team gets straight to work, with game analysis, feature prioritization and general prototyping. Once the brainstorming is complete, our team starts working on various attachments and components of the robot, constantly innovating and trying new designs to create the best possible machine. One of our new features of this year is a "swerve" drive base which allows the robot to move entirely omnidirectionally.



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In mid-February, we attended the Corn Dog Classic, in Cedar Falls, hosted by team 525: Swartdogs. At the scrimmage, we tested the capabilities of our robot to figure out what we needed to improve on before the season officially started. We also held our driver tryouts to establish our drive team so they could practice before our first regional. Lastly, we tested our new scouting program to fix any issues it might have.

Outreach Related

Despite kick-off happening in early January, we have long been working with various groups and events to increase community participation and exposure to STEM. One of our most exciting new collaborations has been with the Iowa City Public Library. During winter break, we held a

one day mini-bot camp, where 25 kids from kindergarten to 8th grade were taught robotic basics with lego EV3 bricks. Due to the massive initial success of the program, we are already organizing plans with the library to go back in summer. Over 48 students have already signed up for our new session, with all past and future camps being completely free of charge to the community.



Another new partnership we have formed over the past few months has been with the GoBabyGo organization. In August, a physical therapist from Iowa City reached out to us by email, asking for help. Simon is an 18 month child, who was born with muscular

dystrophy. Because of this condition, he was unable to move by himself. Simon's family, knowing that physical autonomy was important for developing minds, were looking for a team of engineers that could create a comfortable and safe vehicle for Simon to operate. After a few months of discussing the specific needs of Simon and his family, we took up the challenge. In December, our team completed the vehicle, with the Iowa community coming together to



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provide resources. After we made a few modifications to ensure Simon's comfort, he was finally able to move freely in the car. Seeing the success and impact our team had on Simon's family, we are excited to announce our further partnership with the GoBabyGo organization, and our future seasons will be dedicated to helping even more of those in need.

Other Happenings

We are looking for interested sponsors to help put together an hour long activity for 3rd-8th graders during our Junior Bots summer camps. Having an activity with experts from the STEM field would be an excellent opportunity for those interested in pursuing careers in that field. The goal of these camps is to introduce kids to STEM ideas and opportunities with one on one mentoring and coaching. We teach children engineering, programming basics, and introduce them to ideas such as sensors and motors. For those who are interested in some more information about our camps, please visit our website, [Junior Bots | Iowa City Robotics!](#)



Our team will be competing at both the Central Missouri Regional (March 7th-9th) and the Iowa Regional in Cedar Falls, IA. Follow along with the team's competition progress [here](#) or visit us at the UNI Dome March 21st-23rd. Events are free to attend and open to the public.

Upcoming Outreach Events

- Children's Museum Free Family STEM Night March 29th
- Horn Elementary Science Night April 4th
- Iowa City Arts Festival (at the Pedestrian Mall) June 8th
- How To Tuesday (at the Iowa City Public Library) July 30th



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