

THE NUTS AND BOLTS

TECHHOUNDS NEWSLETTER - 04/18/2019

Women in Technology Workshop

The TechHOUNDS hosted the 4th annual Women in Technology Workshop on Saturday, March 2nd. Over 60 middle school girls participated in stations and activities centered around the theme "Let's Build Our World." These included Conceptual Design, which encouraged students to research and develop a solu-



TechHOUNDS member works with WTW participant

tion to city infrastructure issues; Electrical Houses, where students used breadboards and LEDs to wire a cardboard house; Instant Challenges, in which students were given limited time and materials to construct bridges and water slides; and Transportation Innovation, where students programmed a bus route using Lego Mindstorms. In addition, attendees listened to inspirational speeches by women in STEM careers, including Amanda Hogland, Supervisor of Learning at Carmel Clay Schools, and Rupal Thanawala, TechPoint Foundation for Youth Representative. Keep an eye out for more information about the TechHOUNDS' 5th Women in Technology Workshop, which will take place later this year!

CONTACT US @

techhounds868@gmail.com
or visit techhounds.com

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@frc868



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UPCOMING EVENTS

Worlds (Detroit)

04/24-27/2019

Banquet

04/30/2019

Elections

05/03/2019



Open House

On February 19th, the TechHOUNDS hosted their official Open House. The team revealed Burnout, our robot for the 2019 competition season. Family, friends, and special guests — including Indiana State Senator JD Ford and Carmel Clay Schools Superintendent Dr. Michael Beresford — were all able to watch the team in action. Not only were they able to view a virtual reality projection of the practice field, they were able to watch the autonomous programming code in action on the 2018 competition robot, QuickDraw.

Tippecanoe Event

The TechHOUNDS competed at the Tippecanoe District Competition at Jefferson High School on March 23rd and 24th. After a successful round of qualifying matches, the TechHOUNDS were ranked first overall with a win-loss-tie ratio of 9-2-1. The TechHOUNDS formed the first seed alliance with FRC 1747 "Harrison Boiler Robotics" and FRC 3936 "RoboBlitz." The alliance won their quarterfinal matches and progressed to the semifinals. Unfortunately, our alliance was not able to defeat the fifth seed alliance comprised of FRC 461 "Westside Boiler Invasion," FRC 1720 "PhyXTGears," and FRC 6498 "Castle High School" because of many complications within our alliance, including a loss of communication with a robot and a detached bumper. The TechHOUNDS ended the competition with a win-loss-tie ratio of 11-4-1, and have improved that ratio during the Center Grove Event. The team would like to thank all of the students, mentors, parents, and alumni who continuously support the team throughout the competition season.



Center Grove Event

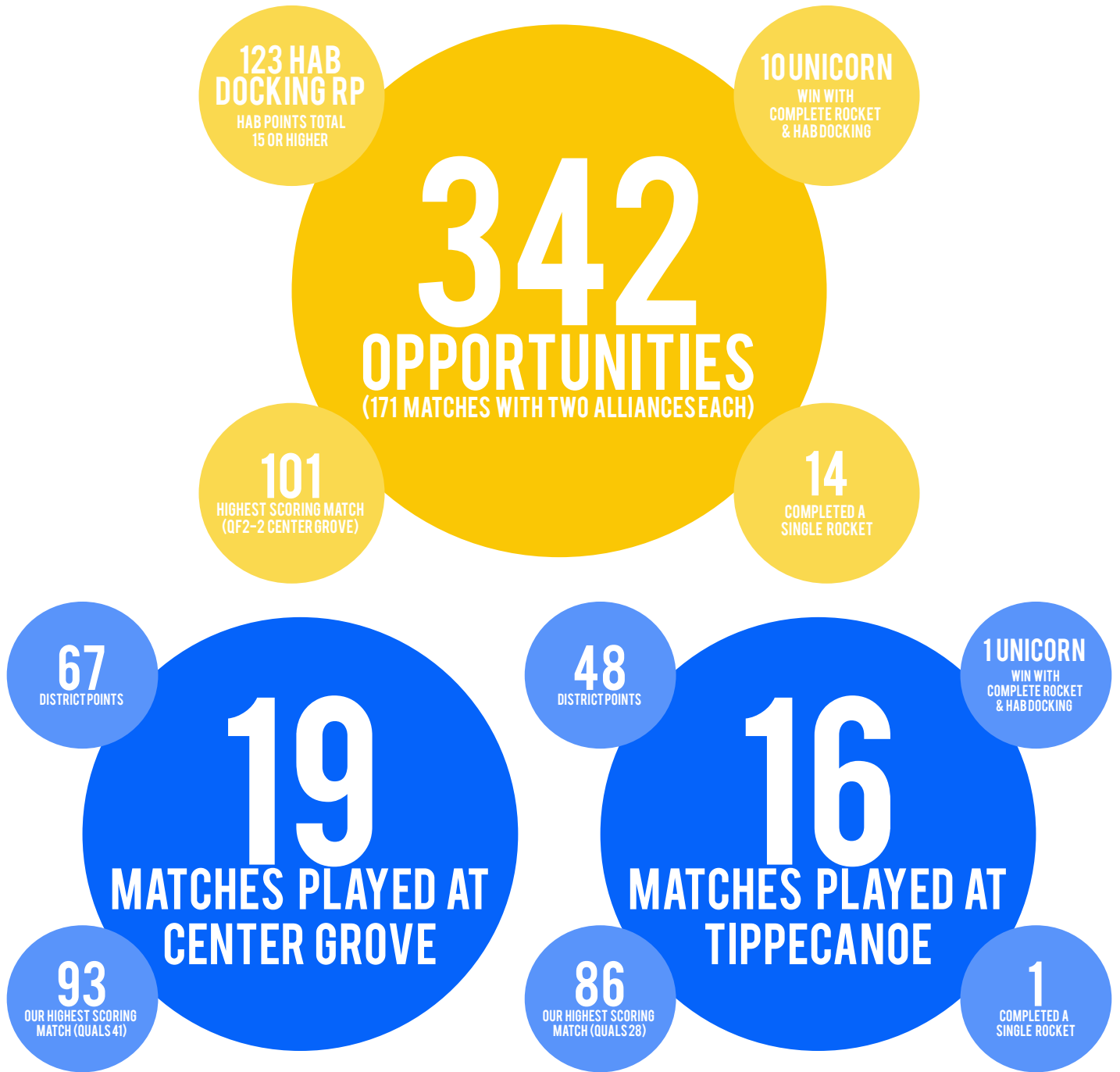
On March 29th and 30th, the TechHOUNDS competed at the Center Grove District Competition. Following the qualification matches, we were ranked second overall. Alliance captain and first-ranked team FRC 7457 "SuPURDUEper Robotics" chose to ally with the TechHOUNDS and FRC 1741 "Red Alert" to form the first-ranked alliance. After close calls and difficult elimination matches, the first-ranked alliance won the overall competition. We ended the day with a win-loss-tie ratio of 10-2-0 and our first competition win of the year. The TechHOUNDS currently rank second in the state and have already competed at the Indiana State



Championship held in Kokomo on April 12th and 13th. Stay tuned for our next newsletter where we will cover this event in further detail.

District Competition Data Breakdown

Data shown comes from each competition's Blue Alliance page and our own scouting data.



<https://www.thebluealliance.com/team/868/2019>



Marcus Ford, Construction Lead, organized a City Barbecue Fund-raiser for the TechHOUNDS that took place on Monday, March 18th. Anyone who showed cashiers a special flyer between 10:30 AM and 10:00 PM had 25% of their purchase donated towards the team. The fundraiser raised over \$260. The TechHOUNDS would like to thank anyone who attended the event!

DIVISION UPDATES

We have made numerous incremental improvements to the robot's design based on testing at our practice field. This includes mostly the intake and climbing mechanisms. Finding out what works and what doesn't allows us to make needed adjustments. Therefore, we're continuing to manufacture new parts and backups for competitions.



ROBOT OPERATIONS

Throughout the competition season Construction has spent its time keeping the pit and carts ready for competitions. We have also been completing small tasks, including maximizing the space within the trailer and improving the organization and documentation of the division for future leaders.



CONSTRUCTION

IT continued updating the website and made marginal tweaks on the scouting system. We also set up the Raspberry Pi and the different servers needed to run the scouting system at competitions.



INFORMATION TECHNOLOGY



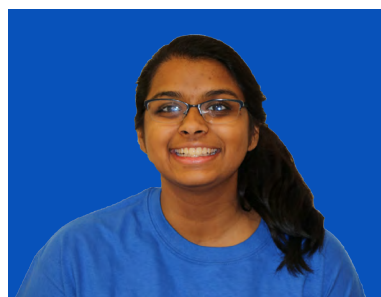
PUBLIC RELATIONS

Over the past month we have been busy creating publication material for our audience to enjoy, such as newsletters, competition videos, and photos. We recommend checking out and following any of our social media (Twitter, YouTube, Facebook & Instagram) for updates.



PROGRAMMING / ELECTRICAL

In Programming/Electrical this season, we wrote code and made an electrical board for the robot. Since the end of build season our main focus has been on creating a powerful vision system for targeting the vision targets on the field. This will allow us to create driving assistance for our robot operators.



TEAM LEAD

The team did extremely well at both Tippecanoe and Center Grove, bringing home our first blue banner of the year! We have a couple of upcoming outreach events like Frosh Rock and the UNICEF Charity Ball that we are excited to help out with, as well as the Worlds Competition at Detroit. Let's finish this year strong!

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