FRC 8767 - Dark Horse Robotics

We Are North Branch Robotics

We are a community-based robotics team for students aged 10-18. Each year we design a robot during a two-month build period to compete in competition against other teams in a game that is different each year. We follow a school-based calendar meeting from September to April. We operate with several sub-teams to handle different tasks. Our sub-teams include mechanical, electrical, programming, CAD, 3d Printing, social media, photography, and videography. We believe that students should enjoy their time at robotics and that it should feel like a fun program instead of feeling like a “chore”. FIRST founder Dean Kamen says “We created a sport as exciting as every other—but the only one where every kid on every team has the chance to turn pro.” Our team provides opportunities for every student to become successful in real-world applications involving the above sub-teams.

As a robotics team, we accept everyone regardless of their perceived ability or school affiliation. We operate on a system of maturity, willingness to learn, and commitment to the program. A student can be from any background as well as any STEAM experience as long as they can work hard, they are welcome into the Dark Horse Robotics team!

History Of Our Team

In 2020, the original team in our school district dissolved during the COVID-19 Pandemic, however, most of the materials still stayed within the school district. Students and mentors from the dissolved team felt that it would be best to create another team after the COVID-19 pandemic, and our team officially began its rookie year in 2022. From there, we’ve continually become more impactful within our community. In our rookie year, we competed in 2 competitions, and we won the “Rookie All Star” award.

The Rookie All Star award is the most prestigious award a rookie team can win, and it automatically qualified us for state competition! "Celebrates the rookie team exemplifying a young but strong partnership effort, as well as implementing the mission of FIRST to inspire students to learn more about science and technology. As there are often far fewer rookie teams than veteran teams present at events, Judges have the option of not presenting this award if they feel no rookie team competing meets the criteria." “Awards Based on Team Attributes.” FIRST, 19 Sept. 2024, www.firstinspires.org/resource-library/frc/awards-based-on-team-attributes. From there, we have won awards in all of our competitions but one, and we’ve shown determination to get better!

FIRST

FIRST (**F**or **I**nspiration and **R**ecognition of **S**cience and **T**echnology) was founded 1989 by Dean Kamen to inspire the young to gain interest in science and technology. FIRST is based in Manchester, NH, the non-profit organization aims to increase accessibility to STEAM, and motivate young people to participate in Science and Technology. Along with FIRST providing students' the ability to pursue education, FIRST also provides the ability for students to build their self-confidence, knowledge, and social skills!

Our Impact

As a FIRST team, we aim to give our students the best experience they can, and with these experiences, students can use them in applications to college and careers. Colleges and employers appreciate the experience these students have, and in many cases, search for students with hands-on experience in FIRST. Furthermore, FIRST students have access to over 80 million dollars in scholarship money.

Skills our Program Provides

Our program provides many skills that are used in the real world, although our main goal each season is to build a competitive robot, the real goal of FIRST is to give students real-world skills they can use in their future careers. Students learn from adult mentors that have careers in specific skill sets such as programming, engineering, and electronics! These mentors share their skills with the students, and students innovate upon these skills learned, creating confidence in their abilities! Skills learned include...

- Programming and Logical Thought (specifically Java Programming)
- Advanced mathematics along with engineering skills
    - These skills include manufacturing, fabrication, working with actual tools used in workshops, along with machining and toolplanning
- Writing (Technical, creative, inspirational)
- Graphic Design, Photography, and Videography (Adobe etc)
- Computer Aided Design (Solidworks, Onshape, Tinker CAD)
- The Scientific Method, along with the Engineering method
- Public Speaking

Community Engagement

As a “Veteran” team in FIRST, it is our obligation to reach out in our community to spread the FIRST message, and obtain more students interested in pursuing STEAM education! We do various events in our community such as...

4th of July Parade

Each year, our town of North Branch, MI hosts a 4th of July parade, where 100's of families line main street to watch the floats and we feel it is a great opportunity to show off our robots and recruit new students. During these parades, families have full view of our robot, along with our sponsors on our float. This is one of the largest community outreach events we do as a team.

STEAM Night

Each year, the North Branch Elementary School hosts a STEAM Night, in which families bring their kids to engage in STEAM activities such as science experiments, artistic competitions, and our very own robotics demonstration! At STEAM Night, we give students a tangible experience with our robots by allowing them to drive them! Our sponsors are also displayed on a banner at this event. This event is our best recruiting event, as the tangible experience gets many students excited for STEAM!

Father and Son STEM Night

Much like the STEAM Night, this was another event in which we gave students a tangible experience with our robots. This event was also hosted at the Elementary School, and at this event we had a unique station, we created a basic programming station! This helped students get both tangible experience driving and experience programming!

Team Accomplishments

2022

Kettering #1
Rookie All Star Award
Rank #33 out of 35

Walled Lake District
Rank #38 out of 41

Michigan State Championship

2023

Kettering #1
Creativity Award
Rank #26 out of 39

Kentwood District
Creativity Award
Rank #25 out of 39

2024

Kettering #1
Creativity Award
Rank #24 out of 40

Kentwood District
Rank #28 out of 39

Team Needs

As a team, we have various needs that sponsors could fill. Sponsors and parents are essential to allowing us to educate and advance students in our program, and continue students on the path of STEAM involvement.

Sponsors funding can help us with various costs such as the expensive components of the robots, the funding to compete in competition, and our workshop! Down below, you will see the cost breakdown of a typical season's budget for us.

Category	Specifics	Cost
FRC Registration	Kit of Parts and 2 District Comps.	$6000
	State Competition Fee (Condtional)	$4000
	World Competition Fee (Conditional	$5750
Robot Expenses	Electrical Components (Motors, Wires, Specialized elements)	$2000
	Raw Materials (Wood, Metal, Plastics)	$1000
	Drive Base (Gears, Gearboxes etc)	$3000
Other Expenses	Tools and Equipment	$2000
	Transport and Lodging	$4000
	Outreach and Media	$1000
Total Cost		$28750

Sponsorship Tiers

Sponsoring our team is an opportunity to correlate your company with the growing STEAM young population, and helps us compete to the best of our ability! Below, you will see levels of benefit based on monetary amount:

Notable Recognition $150 - $499

- A thank you note from our team thanking you for your support
- Company name/logo on our website
- Recognition on our social media

Bronze Level - $500 - $999

- A thank you note from our team thanking you for your support
- Company name/logo on our website and our T-shirts
- Recognition on our social media
- Special packet of our robot and team pictures

Silver Level - $1,000 - $1,999

- A thank you note from our team thanking you for your support
- Company name/logo on our website and our T-shirts
- Recognition on our social media
- Special packet of our robot and team pictures
- Company name/logo on our competition robot

Gold Level - $2,000 - $2,999

- A thank you note from our team thanking you for your support
- Company name/logo on our website and our T-shirts
- Recognition on our social media
- Special packet of our robot and team pictures
- Company name/logo on our competition robot
- Company name/logo in our competition pit

Platinum Level - $3,000 +

- A thank you note from our team thanking you for your support
- Company name/logo on our website and our T-shirts
- Recognition on our social media
- Special packet of our robot and team pictures
- Company name/logo on our competition robot
- Company name/logo in our competition pit
- Robotics team personally thanks you, displays competition robot, and discuss our season (either virtually or in-person if local)

Sponsorship Information

Thank you for supporting Dark Horse Robotics, a 501(c)(3) nonprofit! Please complete the form and email to info@northbranchrobotics.org. Make checks out to "North Branch Area Schools" and in the Memo field put "High School Robotics". Mail checks to “North Branch Area Schools” 6655 Jefferson Rd. North Branch, MI 48461

Sponsorship Form

Business Name: _____

Contact Name: _____

Address: _____

State: _____ City: _____ Zip Code: _____

Phone #: _____ Email: _____

Business Website: _____

Student Contact: _____

Amount Donated: $_____ Check #: _____

Cash: _____ Online: _____

In-Kind Donation: _____

Important Information

To ensure logo placement on competition materials in March and April, send all materials to FRC 8767 by January 31st.

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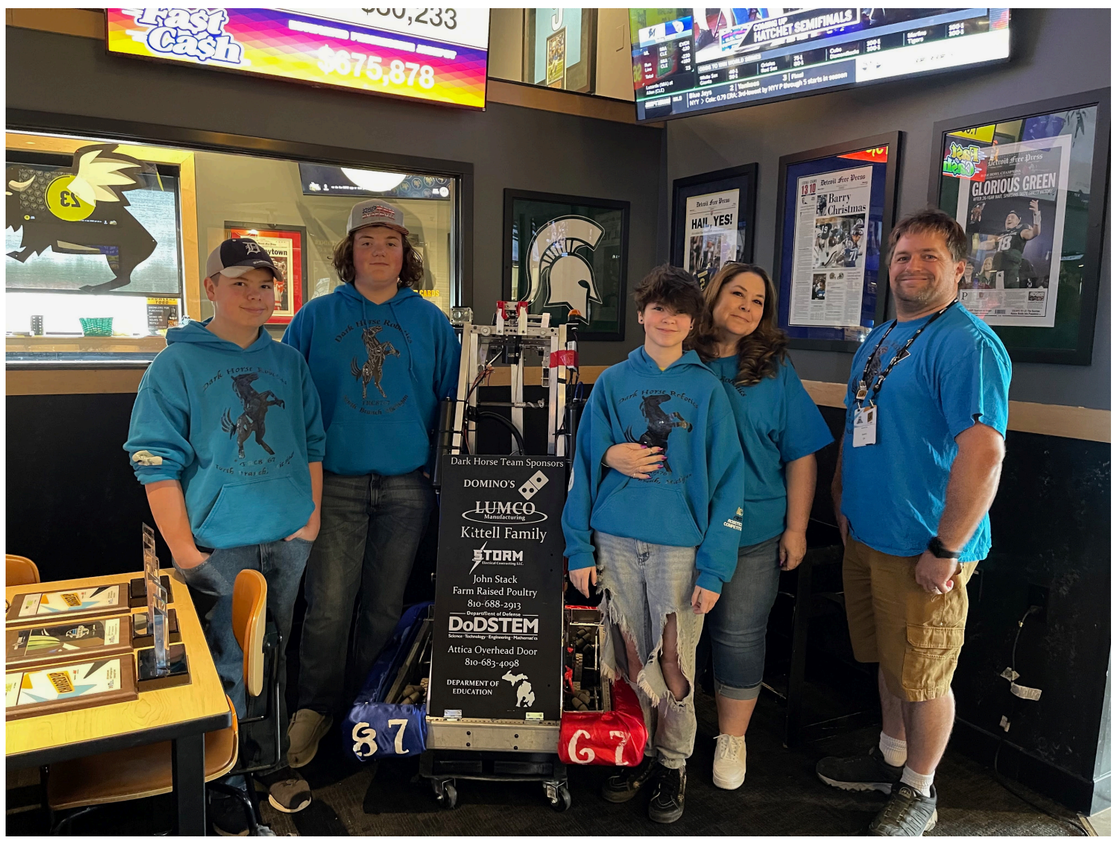

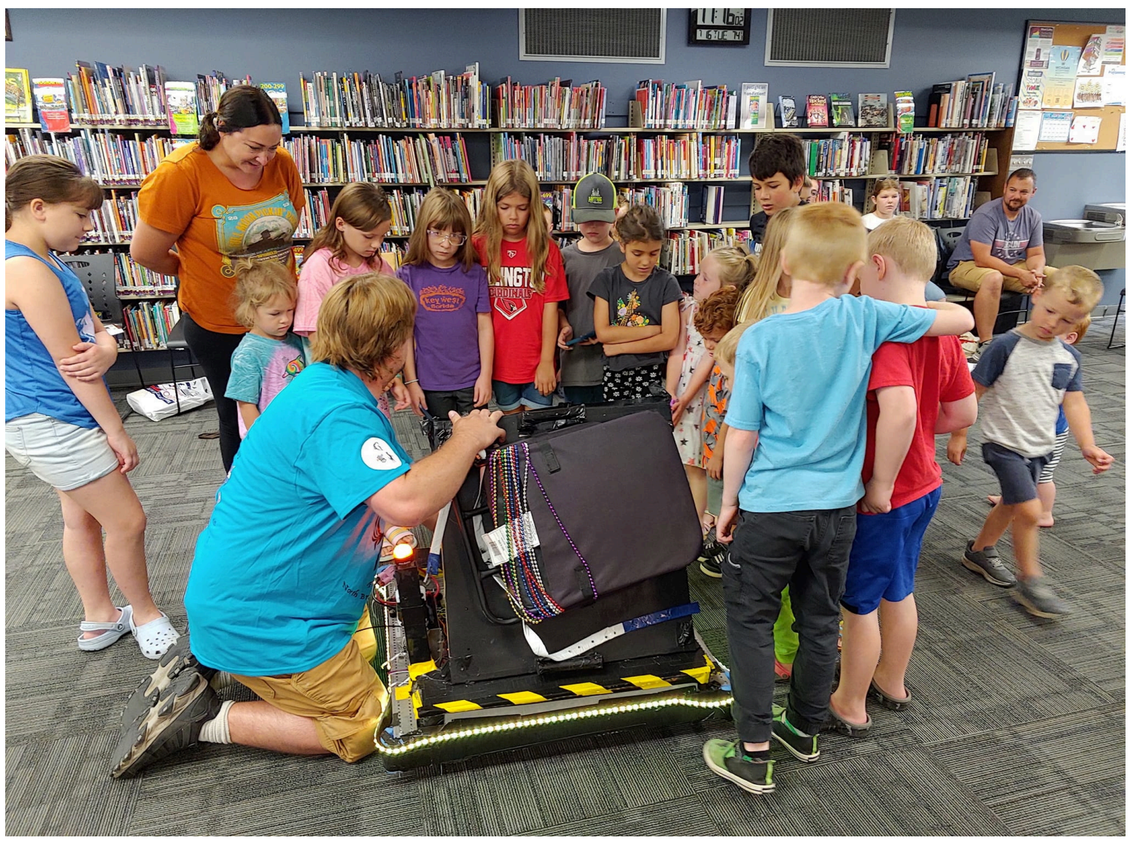

Thank You for Your Support!