



METAL MOOSE

1391

SPONSORSHIP INFORMATION

Our Vision

The Metal Moose envisions a culture that respects, engages in and celebrates innovation in pursuit of meeting the challenges of the 21st century and a society that promotes and supports STEM education opportunities for everyone.

Our Mission

The Metal Moose aims to be a creative, respectful, and encouraging environment where members enthusiastically pursue personal interests and passions in STEM for the benefit of the team.



Metal Moose Team Goals

SAFETY	The training of students and the practices used in the design and production shop will be founded upon a commitment to appropriate technology used safely.
COLLABORATION, MUTUAL RESPECT, & SUPPORT	The strength of our team is founded upon student empowerment to voice ideas, the ability to help each other through struggle and challenge, and the realization that positive thinking and commitment to the common good are imperative.
GROWTH AND DEVELOPMENT OF TEAM MEMBERS	Team members grow best when they are willing to take risks, be open-minded, and are provided with rigorous training by mentors, experts, and each other. Team members will learn the tools that allow them to create effective solutions to authentic real-world challenges.
RESILIENCE	Teams that are most effective have the ability to maintain focus, diligence, commitment, and collaborative competence under great pressure. We seek to develop that team.
THINKING BROADLY, DEEPLY, & CRITICALLY	Team members will learn new things each day and will become increasingly proficient and expert in their team specialties and broadly aware across all team functions. They will grow in ability to do careful and focused research to support their technical development and will learn to weigh conflicting demands of time, resources, and interest to build consensus-driven approaches to project challenges.
THOUGHTFUL, PRUDENT, AND INFORMED USE OF MATERIAL AND PERSONNEL RESOURCES	Westtown Robotics seeks to maintain a lean budget without compromising design, prototype, and build effectiveness, to direct assets intelligently across the demands of the program imperatives, and to develop team members who can balance the demands of the robotics program with their academic, extracurricular and personal lives.
SERVICE TO COMMUNITY	Whether it is doing a robot demonstration for elementary students or alumni, or tutoring underserved children in science, technology, engineering and math, service to the community is critical to who we are and what we intend to accomplish in the world.
HAVING GREAT FUN WORKING TOGETHER TO MAKE THINGS HAPPEN	Building a robot, a team, and a wider community that supports our program and understands the impact of innovative young people is an enormous challenge. Accomplishing our goals requires passion, commitment, community support, and long-range vision. Making it joyful is paramount!

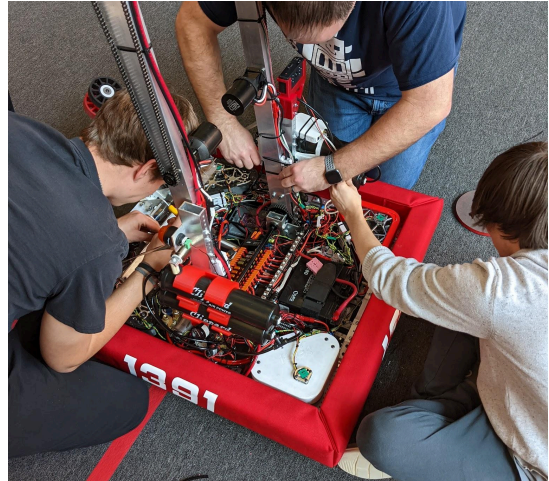
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Who We Are

We are a team of thinkers. Of collaborators.
Of innovators.

The Metal Moose is the robotics team of Westtown School, a Pre-K to 12th Grade Quaker boarding school in West Chester, Pennsylvania. The Metal Moose is a member of *FIRST*[®] (For Inspiration and Recognition of Science and Technology), an international organization that promotes involvement in science and technology for youth of all ages.



What We Do



The Metal Moose competes as a part of the *FIRST* Robotics Competition (FRC), which is known to be the “ultimate sport for the mind.” Along with over 9,000 registered teams from across the globe, we take at least 6 weeks to design, build, and program a robot that adheres to a specific game challenge. Every year, the game is released at the beginning of January, and from March to April, we compete with other teams at the local, regional, national, and international levels.

Of course, we have a core team of designers, builders, and programmers who work tirelessly to ensure we have a functional robot that can best fulfill the challenges presented to us by the time competitions roll around. But we also like to think of our team as a business, which means we have an entire group of students dedicated to fundraising, team organization and advancement, communications, and community outreach. All in all, we are a well-rounded team with a diversity of talents, skills, and passions.

What is *FIRST*?

From *FIRST* themselves:

“*FIRST* is a robotics community that prepares young people for the future through a suite of inclusive, team-based robotics programs for ages 4–18 (PreK–12) that can be facilitated in school or structured afterschool programs. Boosted by a global support system of volunteers, educators, and sponsors that include over 200 of the Fortune 500 companies, teams operate under a signature set of *FIRST* Core Values to conduct research, fundraise, design, build, and showcase their achievements during annual challenges.”



Access and Equity Outreach Overview

Our access and equity outreach projects are dedicated to improving STEM access worldwide and in our communities. We recognize the importance of STEM education and understand our privilege in receiving a high-quality education. As such, sharing our knowledge and resources is our top priority. In working towards this goal, we have partnered with several organizations in the past, the most recent of those being Camp Dreamcatcher in Kennett Square, PA. Camp Dreamcatcher is a nonprofit that runs a week-long camp for children affected by or infected with HIV. During that week, we ran hour-long sessions for 7-13 year olds during which we demonstrated our 2023 robot BAMI, teaching campers about its functionality and allowing them to drive it. We also taught campers the basics of coding and engineering using LEGO Mindstorm Robotics kits. For many of these kids, this was the first time they were exposed to the world of robotics. They embraced the challenge, naturally problem-solving and demonstrating their creativity with the LEGO robots. Many of these campers expressed interest in pursuing robotics at their own schools after coming to our sessions. We look forward to continuing our outreach programs with future collaborations with Camp Dreamcatcher (continuing our partnership), Kendal Retirement Community, and Bermuda's Department of Education.

Past Access and Equity Outreach

- Volunteered at Kennett Garage
- Good Robot Challenge
- Donations of school supplies to Yspanolia
- LEGO drives and workshops benefitting local schools
- Hosted and volunteered at FIRST LEGO League events on our campus
- Hosted multiple FIRST Robotics Competition events
- Designed and fabricated a robotic prosthesis for an elementary school student
- 2023 Camp Dreamcatcher



Access and Equity: Women in STEM Event

In the next academic school year, we are planning on hosting a Woman in STEM day for anyone who wishes to attend. We will have a guest speaker from NASA as our main event before breaking off into smaller groups. We aim to partner with the Association for Women in Science (Philadelphia chapter) and the Philadelphia Society of Women Engineers to build a rich and diverse panel of motivational participants in support of the work. Discussions surrounding Women in STEM will be held with guiding questions aimed at encouraging women to learn and engage in STEM. Across 142 nations, only 29.2% of the STEM workforce is women, we hope that in the future this gap will be bridged. The goal for this Women in STEM event is for people to end their day inspired and encouraged to participate in STEM.

Access and Equity: Kendal Crosslands

In the coming months, Metal Moose is going to help re-establish Westtown School's relationship with Kendal-Crosslands Communities, a retirement community in Chester County, PA. Our goal is to meet with residents regularly, offering our LEGO robotics resources as an activity and opportunity to connect with students. We believe this program will provide a fun opportunity for Kendal residents to participate in an engaging activity and build relationships with members of Metal Moose. LEGO robotics allows participants to improve their mental and physical dexterity in the process of building and programming robots. People will improve their computer science and engineering skills by participating in a fun and competitive activity.



Awards

From Our 20 Years of Competition:

2023	Event Winner – Bensalem Excellence in Engineering Award – Bensalem Quality Award – FMA District Championship Autonomous Award – Hatboro-Horsham
2022	Autonomous Award – Bensalem Creativity Award – Hatboro-Horsham
2019	District Chairman’s Award – Bensalem Industrial Design Award – Westtown
2018	World Championship Division Finalist – Darwin District Engineering Inspiration Award – Seneca Innovation in Control Award – Hatboro-Horsham
2017	Excellence in Engineering Award – Montgomery
2016	Creativity Award – Hatboro-Horsham Judges’ Award – Westtown
2015	Creativity Award – Upper Darby
2013	Industrial Design Award – Bridgewater-Raritan
2012+	And More...



Why Donate?



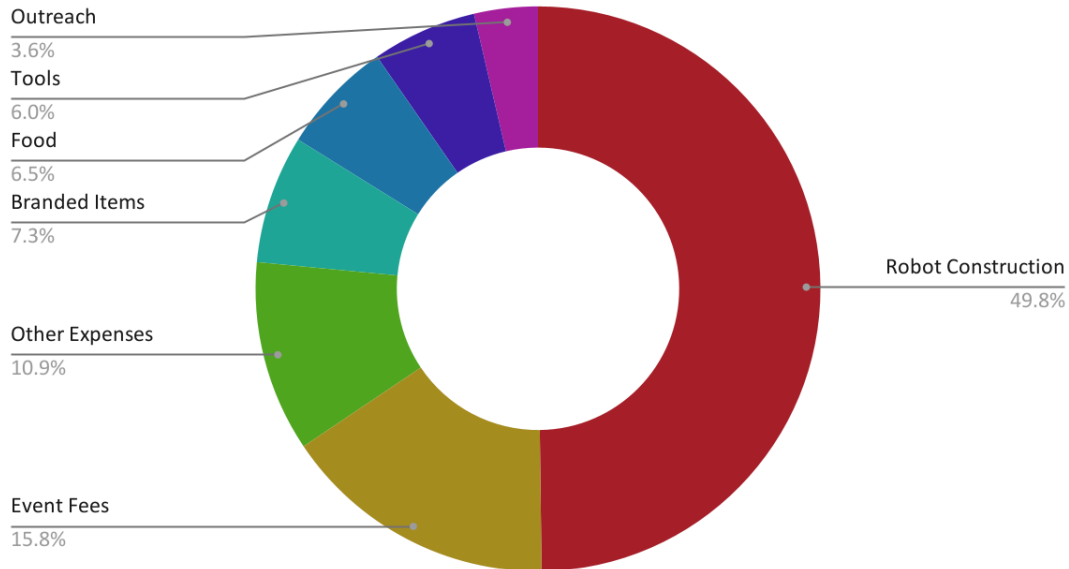
The Metal Moose has faced many challenges in more than 20 years of competition history, and we always look forward to conquering the next; however, we cannot do so without the support of our school, our community, and our corporate sponsors. Your donation would directly support the STEM education of our team, our local community, and the communities we connect with. Over the pandemic, we lost the majority of our collective funding for reasons

outside of our control. Despite this, the 2023 season was our most successful yet, going to the World Championships for the 10th time in our team's history, and for the second consecutive year. This is made all the more impressive considering our team was made up of 50% rookies.

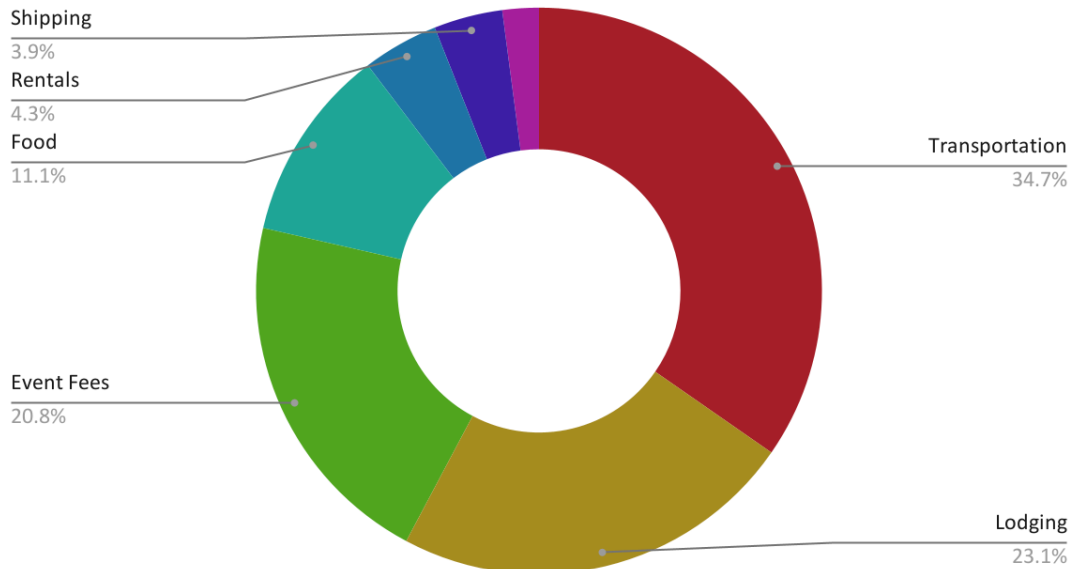
Our success came at a cost. We bit heavily into our savings, and another season like our last would be impossible. Our incredible momentum presents an opportunity for us to excel, but we cannot do so without your financial support. We hold ourselves to a high standard of inclusion and equity and are committed to maintaining cost-free membership in our team.

Budget at a Glance

Qualifying Events



Championship Events



We are unable to provide exact amounts in this document because it is public. Please reach out to us directly if you have any questions about our budget.

Strategic Goals & Summarized Strategies

1. Plan and execute three social outreach programs that promote STEM education locally and internationally.

The Metal Moose understands STEM education is incredibly important and we discuss many different ways to introduce STEM education into different settings. In the next five years, Metal Moose will work with primary schools in Bermuda, San Vincente de Paul school in the Dominican Republic, and Camp Dreamcatcher (a local summer camp in Kennett Square, PA) Strategies include:

- Bermuda
 - Communicate with the government of Bermuda, create lesson plans and video demonstrations, and provide in-team education on the LEGO SPIKE Prime kits.
 - Fundraise for the SPIKE Prime kits
 - Pilot testing will be conducted and, if approved by the government, kits will be sent out.
- Dominican Republic
 - Communication between Metal Moose and our contact at San Vincente de Paul school until the school supplies are sent out.
 - Fundraise for the purchasing of needed school supplies.
- Camp Dreamcatcher
 - Metal Moose will be in contact with Camp Dreamcatcher throughout the year
 - Meetings held to organize and plan STEM sessions before the school year ends.

2. Encourage team spirit and cultivate a team image upheld by all members of the Metal Moose.

The Metal Moose values our team image and we show our support by exhibiting team spirit at events and around our school. In the coming years, we wish to improve our image and nurture our team spirit. Strategies include:

- Maintain an active and professional stance on all of our social media outlets.
- Uphold our brand by remaining consistent with the use of our team colors, logo, etc.
- Continuously invite competitive spirit within the team by showing support for our team through participation and attentiveness.

3. Remain focused and active when we are not competing.

Like any team, we encourage our members to remain active in robotics all the time, even during the off-season. We have six sub-teams that complete all the different tasks required for a successful robotics team. All of our sub-teams have members who work year-round on robotics and we encourage everyone on the team to continue returning either to work on a project or learn how to do something new. Strategies include:

- Complete sub-team preseason plans that encourage learning and participation in all aspects of robotics.
- Embrace the sense of community, encouraging members to return to teach the next generation.

4. Our competitiveness will be fostered by a shared understanding that we intend to win awards and events.

Our competitiveness has thrived with the development of our scouting sub-team and the hard work of our other five sub-teams. The Metal Moose has been a highly competitive team and we will continue to grow as each season passes. As we gain more experience we expect to compete at a higher level and continuously qualify for the FIRST World Championships. Strategies include:

- Better understand our opponents and allies by an extensive scouting program.
- Preseason orientations to create excitement around robotics, elevating our competitiveness.
- Adequately train and prepare new team members during the preseason.

5. Obtain a consistent flow of support from year to year.

The Metal Moose will keep our supporters updated on the team. We will boost our connection with supporters through consistent updates, We will set achievable financial goals for the next five years that will be re-evaluated yearly. Strategies include:

- Scout companies with team needs and sustainability in mind.
- Scout alumni, local businesses, and team member parent contacts for possible sponsorship opportunities as well as complete application-based sponsorships in the postseason.
- Assign members of the Business team as a point of contact for supporters.
- Send out annual Thank You letters to our supporters.

*These goals are revised every 5 years

How to Donate

Westtown School is a 501(c)(3) nonprofit. We greatly appreciate both in-kind and cash donations. All donations are tax-deductible, and a W-9 form can be provided upon request. Our tax ID is 20-5073581.

If you are interested in supporting the Metal Moose this year with a cash donation, please make your donation by:

Check: Make your gift payable to Westtown School (Metal Moose in the memo) and send it to Westtown School % Advancement Office, 975 Westtown Road, West Chester, PA 19382.

Bank transfer: Please email steve.compton@westtown.edu to request instructions on how to make a gift by bank transfer.

Online: www.westtown.edu/roboticsgiving/

If you are interested in in-kind donations, please email steve.compton@westtown.edu to request information.

Contact Info

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