Who We Are:

The McKeesport Area High School and Technology Center Robotics Team, FIRST Team 1708, is also known as Amp’D Robotics. Amp’D Robotics was started in 2005 and is now in its 14th season. The team has grown steadily since 2005 and currently operates with four senior mentors, and thirty student team members.

Team 1708 takes a very hands-on approach to the process of designing, prototyping, building, programming, and operation of the robot. All design ideas are student-driven, and the construction processes are student led. The role of team mentors is simply to guide students in completing tasks in a safe and timely manner, and introduce students to new information and practices. Amp’D Robotics’ senior mentors oversee all operations, and ensure that students and mentors are working together toward a common goal.

One of the main focuses of the team is service within the community. Through their outreach efforts, Amp’D Robotics have interacted with more than 10,000 individuals over the lifetime of our team, showcasing FIRST, STEM education and robotics.

To spread the word of FIRST, Team 1708 is a member of the Steel City Robotics Alliance, as well as mentoring a local FTC team, Team Robotix (#7060). We have also partnered with the Carnegie Science Center to participate in demonstrations during the Sci-Tech Days events for middle school and high school students, as well as being named a Maker of Merit in the first annual Pittsburgh Maker Faire. We estimate that our team has interacted with over 1,000 individuals to spread the word of FIRST in this past year of events.

The mission statement of Team 1708 was developed by students in collaboration with mentors, in order to describe the intentions and goals of Amp’D Robotics. Our mission is to promote innovative applications to STEM education through collaboration of students, mentors, and sponsors in development, construction, promotion and operation of a FIRST robotics team. Students and mentors complete tasks that assist in developing STEM skills that are applicable in real-life situations, and assess every situation as an opportunity to learn. Members of the McKeesport Area High School and Technology Center Team 1708 maintain gracious professionalism toward all teammates, other FIRST Robotics Teams, as well as their community, in order to gain an understanding of the importance of networking and professional communication.

Team 1708 holds all of its members - both students and mentors - to a very high standard at all times. All students must maintain a minimum of a B average to continue with the team, and are required to submit monthly progress reports to track performance and promote academic excellence. Mentors encourage students to ask for assistance with schoolwork when needed, and offer aid with homework assignments on a continual basis. We encourage every student to attend post-secondary education, and require all graduating Amp’D Robotics team members apply for applicable FIRST Robotics Scholarships.

Amp’D Robotics has strong parent support through our parent booster association. The parent organization is designed to increase parental involvement with the Team through coordination of team events and necessary team items such as apparel and promotion. The main goal of the parents group is to support the team and its mentors throughout the season, and create opportunities for those parents who may not possess technical skills to maintain an active role within the team.

Current Team Accomplishments

2010 Breakaway

Pittsburgh Gracious Professionalism Award

Pittsburgh Quarter-Finalist

2011 LogoMotion

Washington DC Regional Finalist

Buckeye Regional Semi-finalist

2012 Rebound Rumble

Pittsburgh Regional Semi-Finalist

2013 Ultimate Ascent

Pittsburgh Regional Semi-Finalist

Pittsburgh Regional Quality Award

Chesapeake Regional Winner! (Undefeated)

Championship 33 out of 100 on Curie Field

2014 Aerial Assist

New York Tech Valley Regional Quarter-

Finalist

Pittsburgh Regional Quarter-Finalist

Pittsburgh Regional Innovation in Control

Award

2015 Recycle Rush

Pittsburgh Regional Finalist

What It Takes

Due to the high costs of running a FIRST Robotics Team, funding for Team 1708 is heavily reliant on donations from companies and local businesses. Sponsorship donations are used to cover registration fees, building materials, team expenses and general operations of Amp’D Robotics. Sponsorship donations have an immense impact on Amp’D Robotics’ students, by providing financial backing to create once-in-a-lifetime experiences. By working hand-in-hand with companies to promote their business, students also gain an appreciation for “real-world” business sense, as well as an introduction to the corporate business atmosphere.

The following is an estimate and summary of the cost associated with operation of the McKeesport Area High School and Technology Center Robotics Team 1708 for the 2015-2016 Season. These numbers are an estimate only, and are subject to change.

Pittsburgh Regional Competition

Competition Entry Fees and Robot Kit of Parts $5,000

Queen City Regional Competition

Registration Fee $5,000

Travel and lodging $2,000

FIRST Championship Competition (if qualified)

FIRST Championship Competition Registration Fee $ 5,000

Transportation Cost for FIRST Championship Competition, St. Louis, MO1  $12,500

Lodging Cost for FIRST Championship Competition2 $13,000

Robot Parts and Operations $5,000

1 Based on group-rate airfare prices for 30 Team members. Fares as of October, 2015, available at [www.expedia.com](http://www.expedia.com)2 Based on 30 Team members, with 4 Team members per room, at a rate of $200 per room, per night, for five nights.

Levels of Sponsorship

By donating monetary funds, labor, materials, or in-kind donations, sponsors will gain recognition and advertisement throughout the entire 2015 - 2016 season. Level of representation is based on the amount of donation, and the various levels are as follows:

*Platinum level: $10,000 and higher*: Organization level sponsorship which includes your logo on our uniform, title sponsor of the GROW (Girls Robotics Opportunity Workshop), standard banner and feature on our website (www.team1708.org). We will also visit your place of business or event with our robots, and you will be invited to a private robotics demonstration at our shop.

*Gold level: $5,000*: Organization level sponsorship which includes your logo and feature on our website, standard banner, our uniform and inclusion in tournament program. You will also be invited to a private robotics demonstration at our shop.

*Silver level: $2,500:* Organization level sponsorships which includes your logo and feature on our website, standard banner, our uniform, and listed sponsor in tournament program.

*Bronze level: $1,000*: Organization level sponsorships which includes your logo on our website, standard banner, our uniform, and listed sponsor in tournament program.

*Steel level: $500:* Organization level sponsorship which includes your logo on our website, our uniform and inclusion in tournament program.

*Iron level: $100*: Team level sponsorships which includes your logo on our website and listed sponsor in tournament program.

All sponsors will be invited to attend district and state competitions as well as community events.

Materials and volunteer time qualify as in-kind contributions, and value of such contributions shall be acknowledged.

All sponsors are entitled to an annual financial report at the end of each season, in September, per request.

Benefits of Sponsorship

The McKeesport Area High School and Technology Center Robotics Team takes advantage of all available methods of promotion to support the donations of our sponsors. In addition to advertisement, sponsoring Amp’D Robotics creates additional benefits that affect not only team members, but also to the companies and businesses who contribute.

Increase Publicity and Visibility

• Company recognition through acknowledgement in McKeesport Area High School and Technology Center Robotics Team publications (based on level of sponsorship)

• Worldwide exposure to over 32,625 students, 18,270 mentors, and 5,700 volunteers from Canada, Brazil, Ecuador, Mexico, Great Britain, Israel, Australia and the United States

• Television Coverage on ESPN, NBC, ABC, CBS and many other national and local stations which have shown FIRST® Robotics competition in whole and in part

• Media publications such as the Tribune Review and the Pittsburgh Post-Gazette, and online sources such as Business Week and CNN.com have covered FIRST Robotics Teams and events

Create Educational Opportunities for Students

• Engineering and business concepts are introduced to students with the assistance of workforce professionals

• Planning and organizational skills that students can apply in all areas of life

• Social skills are acquired and developed due to exposure to a diverse group of people and situations

• Scholarship opportunities of up to $14.8 million are available to all students who participate in FIRST Robotics

• Quick decisions must be made and carried out as a team, fostering innovative thinking and teamwork

• Students take tours of sponsor facilities, introducing them to real-world work environments

Boost Company Morale

• Renewed inspiration is provided to company engineers and employees

• Increase volunteerism by offering employees an exciting and gratifying mentor opportunities

• Strengthen company reputation and recognition within the community

• Provide opportunities for employee team building and training

• Offer employees a sense of satisfaction and pride to support Amp’D Robotics Team 1708.

More Information

For more information on the McKeesport Area High School and Technology Center Robotics Team, Team 1708 please visit the Amp’D Robotics’ website at [www.team1708.org](http://www.team1708.org) or contact one of the Team’s head mentors.

Jason Mols

first.team1708@gmail.com

412.759.4468

Derek Price

first.team1708@gmail.com

412.651.2446

Our Sponsors

Amp’D Robotics would like to thank the following companies and local businesses for their gracious contributions that make FIRST Team 1708 possible:

Cygnus Manufacturing Company

Society of Women Engineers

Wal-Mart

The Heinz Endowment

The Future is Mine

Carl D. Perkins Center and Technical Education Grant

ChemImage

TCFPE

Community Outreach: Strategic Priorities

We have identified strategic priorities to improve our Community Outreach over the 2015-2016 year.

*Increase Presence in the Community and*

*Beyond*

•Amp’d logo to become the familiar face of the team

•Provide technical support for demos

•Document procedures for operating the robot

•Non-FRC robotics (other challenges like trash bot)

•White Oak/McKeesport community events

•Participate in community outreach events

•Mentor FTC teams

•Enhance marketing and technology

•Strengthen communications with all stakeholders

*Fine Tune and Enhance the Robotics Program*

•Start recruiting earlier

•Update sponsor package

•Target non-parent mentors

•Recruit parent volunteers for support functions

•Clean up code, documentation and archives

•Document all activities

•Pursue new sources of revenue

•Rapidly integrate new team members and mentors

•Fine tune training programs

*Increase Diversity in Activities*

•Have diverse team members represent

team

•Plan community outreach activities in diverse communities

•Develop program targeting girls in

technology

*Help Students Develop Skills Applicable to*

*STEM*

•Increase training opportunities

•Participate in building a robot

•Use CAD in decision making and robot

building

•Seek presentations from professionals

•Use field trips and speakers to expose team members to a range of career opportunities

•Compete for several FIRST awards

*Leverage Relationships to Achieve Team’s*

*Mission*

•Share expertise and training programs with other high schools

•Work closely with sponsors to expand relationships

•Invite other teams to participate in a Pumpkin Chunkin’ competition

Community Outreach Highlights

Amp ‘D Robotics shares the excitement and value of science, technology, engineering and mathematics through extensive, year round outreach activities. We believe our greatest impact is made by enabling others to see, touch and enjoy robots and robotics --one person at a time.

Following is a summary of our most notable outreach activities and the impact of our efforts.

HANDS-ON MENTORING FTC TEAMS

This year, Amp ‘D Robotics started mentoring a new FTC team in Upper St. Clair, Team Robotix. Two student mentors visit the FTC team biweekly and provide guidance for middle school students.

While only in its second year and competing against high school teams, Team Robotix won the Leigh Valley Regional at their first competition and, along with placing first, won an Inspire Award at their second competition.

This team shows great enthusiasm and potential for success.

IMPACT:

Our FTC and FLL teams benefit both the mentors and the mentored; through directly impacting approximately 50 students and teachers, our students learn valuable leadership skills while establishing a highly sustainable feeder system for our team.

MARCH IN WHITE OAK MEMORIAL DAY PARADE

In this yearly community parade, the robot from Team 1708 is always a hit. Rolling through the parade and throwing candy into the crowd, our robot attracts attention during the parade.

IMPACT:

Members of the community, including children from K-12, parents, volunteers, and local business owners get a chance to experience the excitement of robotics and FIRST up close.

CONDUCT ROBOTICS DEMONSTRATIONS/PRESENTATIONS

Part of impacting our community means increasing awareness of our team as a part of FIRST robotics. We take part in demonstrations and presentations at places such as Carnegie Science Center for 21+ Nights and SciTech Days for 2015-2016. Linda Ortenzo, Director of STEM Programs at the Carnegie Science Center, estimates that a third of the 6,000 students in attendance for SciTech Days are from underrepresented school districts, while 600 – 900 teachers and parents will attend 21+ Nights.. We have also presented to professional organizations such as CMC, and the Mason Club. Our robot has made appearances at several elementary school fall festivals, after school programs, carnivals, and gifted classes. Wherever our robot goes, passion follows, and this enthusiasm about FIRST is spread from our members to our audience.

IMPACT:

A variety of demonstration presentations reach out to audiences ranging from elementary school students to business professionals and sponsors and provide our team with the opportunity to make an impact on anywhere from 50 to 750 people.

SCHOOL PEP RALLIES AND SPORTING EVENTS

This year, we collaborated with the sports department at our school to display our robots at school pep rallies and sporting events. In fall, we attended several football games and pep rallies, where we showcased our T-shirt cannon robot. Participating in school wide activities like these makes our team more prominent at our school.

IMPACT:

The student body and school faculty impacted by the pep rallies and other sporting events was about 3000.

DEMONSTRATIONS AT FRESHMEN ORIENTATIONS

During the summer, McKeesport Area High School and Technology center hosts orientations designed to familiarize new students with our school layout and environment. Amp D Robotics attends all orientations for freshman from public and private schools and transferring students. We greet these new students with fascinating robots from FRC. During this event we are able to inform parents and students about the unique opportunities FIRST provides beyond just building a robot, including business, social media and marketing skills.

IMPACT:

Approximately 650 freshmen are presented the opportunity to get involved in robotics at the best time in the school year.

TEAM 1708 OPEN HOUSE

This annual night is designed to inform our entire school population about our technology classes, clubs, and teams. Amp’ D Robotics members talk to visitors about FIRST and our team as well as our engineering and robotics classes. As always, the robotics team brings FRC robots for visitors to drive.

IMPACT:

Approximately 150 parents and students learn how technology has affected the curriculum in our school.

MAKER FAIRE PITTSBURGH

This spring, our team demonstrated at Maker Faire Pittsburgh, an event in which our community comes together to celebrate the maker community. We showcased our competition robot and robots from past competitions here, while answering any questions that people may have about our team. All in all, this event was a great way to outreach and promote STEM to our community

IMPACT:

We estimate that approximately 5000 people in our community attended this event and learned more about our team and FIRST. We were also awarded the Maker of Merit award.

GROW: GIRLS OPPORTUNITY OUTREACH WORKSHOP

This fall our team held a workshop specifically for middle school girls to learn about robotics and STEM education. The students helped young women learn to solder by creating blinking LED badges, talked about safety and showcased our robots.

IMPACT:

Twenty-five girls took the opportunity to learn about robotics and STEM education.