



2018 – 2019

**Erie Middle School
VEX Robotics Club
Handbook**

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This handbook is intended to give you an understanding of the Erie Middle School Robotics Club and the responsibilities of its members, including students, parents, and mentors. In the following pages you'll find information relating to team overview, expectations, key roles, procedures, and many other aspects of the club and its teams.

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Erie Middle School

VEX Robotics Club Handbook

Introduction

Welcome to the Erie Middle School Robotics Club! This handbook is a guide for you so that you have an understanding of what the club does and what is expected of you. While this handbook is primarily written for students, there are sections for parents and mentors as well. It would be a good idea to read all sections as a parent or mentor so you are familiar with the Club's policies.

Mission

The Erie Middle School Robotics Club's mission is to equip a community of students passionate about science and technology with the skills and initiative to become the next generation of leaders and create positive change in their future career fields.

RECF Code of Conduct

The RECF considers the positive, respectful, and ethical conduct of all students, teachers, mentors, parents, and other event attendees an important and essential component of all VEX Robotics Competition. They expect the following behavior and ethical standards at all REC Foundation-sanctioned events:

- Act with integrity, honesty, and reliability
- Behave in a respectful and professional manner with event staff, volunteers, and fellow competitors
- Exhibit maturity and class when dealing with difficult and stressful situations
- Respect individual differences
- Follow all rules as listed in the current game manual(s)
- Student-centered teams with limited adult assistance
- Safety as a top priority
- Good sportsmanship, which includes supporting your alliance partners

These expectations apply to all team members and all adults associated with a team including, but not limited to, teachers, mentors and parents. Judges will consider team conduct and ethics when determining awards. Repeated or egregious violations of the expectations in this Code may result in consequences up to the disqualification of the team or organization from the current event and/or future events, and potentially removal from the program after review by the REC Foundation.

Club Overview

What We Do

The Erie Middle School Robotics Club participates in the VEX Robotics Competition (VRC), presented by the Robotics Education & Competition Foundation. VRC is the largest and fastest growing middle school and high school robotics program globally with more than 20,000 teams from 50 countries playing in over 1,700 competitions worldwide. Each year, an exciting engineering challenge is presented in the form of a game. Students, with guidance from their teachers and mentors, build innovative robots and compete year-round.

Why We Do It

In addition to learning valuable engineering skills, students gain life skills such as teamwork, perseverance, communication, collaboration, project management, and critical thinking. The VEX Robotics Competition prepares students to become future innovators with 95% of participants reporting an increased interest in STEM subject areas and pursuing STEM-related careers.

The Basics

Club members are split into competition teams of 3-4 students and moderated by mentors, faculty advisors, and student leaders. During the season, members meet one or more times per week to build and program robots to meet the game's challenges. After several weeks of build and programming, teams compete in a series of local tournaments with the goal of qualifying for the VEX State and World Championships.

What Club Members Do

Members of the EMS Robotics Club will participate in all parts of the design and build process with a group of 3-4 students who work together as a competitive team. No prior experience is necessary. A successful VRC team has members that work on robot design & construction, programming, documentation, outreach, RECF online challenges, sponsorship development, strategy, and scouting. Above all, they make lifelong friendships and have a lot of fun!

Club Values

The Erie Middle School Robotics Club **ROARS** by showing:

- Respect
- Organization
- Achievement
- Relationships
- Safety

Who Can Be a Member of the EMS Robotics Club?

Being a member of the Erie Middle School VEX Robotics club requires a high level of commitment from team members and their families. Students must be self-motivated, requiring minimal redirections from coaches and mentors to remain focused and on task. Strict rules of conduct will be followed regarding safety, teamwork, respect for others and property, time on task, attendance, and sportsmanship. This is a supportive environment where mentors, parents, and students all contribute to running a program that promotes Erie Tiger values while having fun learning together.

Application

All students interested in joining the EMS Robotics Club are required to fill out an application. This will help the club sponsor and mentors better understand the student's skill set, and learn about why the student is interested in being a part of the club.

Eligibility

In order for students to be eligible to participate on the team, they must:

- Turn in the completed student & parent/guardian contracts at the end of this handbook
- Maintain a grade point average of at least 2.5
- Comply with behavior and conduct rules established in this handbook
- Participate with the club for the duration of the school year, with minimal absences

Cost

The Activity Fee to participate in the EMS is \$____. This includes our costs for team registrations, regular season tournament registrations, robot parts, and one team shirt for each student.

Students will be asked to purchase the following tools for personal use.

- 3/32" Hex Driver (e.g. Wiha 26323 Precision Hex Inch Screwdriver)
- 5/64" Hex Driver (e.g. Wiha 96320 Precision Hex Inch Screwdriver)
- 11/32" Hex Nut Driver (e.g. Jonard ND-6301132 Hollow Shaft Nut Driver)

These tools should be clearly labeled with the student's name, and brought to all meetings and events for the student's use.

Key Roles

To ensure the continued success of the EMS Robotics Club, each person associated with the team will fall under one or more of the key roles listed below.

Student Leadership and Team Members

Each VRC team should identify a team captain with the guidance of the club sponsor and mentors. Other members may have more unofficial roles on the team.

VRC Team Captain

In addition to being a team member, leads team meetings, tracks team member attendance, documents team hours, works with the club sponsor and mentors to organize events, liaisons with other club teams, ensures the wellbeing of team students, and ensures deadlines are met.

Team Members

Attend and participate in team meetings and events, and make concrete contributions to the team's efforts throughout the season. Ask for help from teammates and mentors as needed to complete tasks efficiently and to the team's standards.

All team members will play a role in each of the following tasks.

- Document the team's design thinking, problems, and details of construction in the team's engineering notebook
- Read, understand, and follow the rules in the Game Manual
- Use the engineering design process
- Participate in Judging Interviews at tournaments
- Compete in a minimum of two tournaments during the regular season
- Participate in an Online Challenge in coordination with your team captain and mentors
- Actively participate in the team's search for ideas and design inspiration using sources like the VEX Forum, YouTube, VRC blogs, etc.

Parents/Guardians

Parents & guardians are an integral part of the EMS Robotics Club and are extremely important to our continued success. By supporting their child in all aspects of their team

involvement and life, parents ensure their child gets the most out of their education and the club. Parents have several responsibilities, including:

- Provide **timely** transportation for the student. Parents are expected to have the student at the designated location at the prescribed time for all events and meetings. This includes transportation after events.
- At least one parent/guardian per student is expected to participate in the Erie Middle School VEX Robotics Tournament by assisting in any way needed during the event.
- At least one parent/guardian per student is asked to act as a volunteer at one or more additional VRC events during the team's season.
- Parents are expected to provide accurate medical information when requested and to keep mentors informed of all changes to ensure student safety.
- Parents are expected to check email on a regular basis and read all pertinent EMS Robotics Club emails.
- Parents are expected to fill out all required paperwork in a timely manner.
- Parents are encouraged to participate in team activities whenever possible.
- Parents are strongly encouraged to discuss any concerns they may have with the club sponsor.

Club Sponsor

The Club Sponsor is an important asset to our team. They are responsible for:

- Facilitating communication with the school
- Explaining school rules and implementing them
- Helping with recruiting efforts and promoting any events or activities within the school
- Maintaining order and appropriate student behavior at team meetings and events. They will attend team meetings whenever possible or delegate another EMS employee or approved coach to be present when he or she cannot attend.

Mentors

A mentor is an adult or graduated student who has been invited and approved by the club sponsor and school administration to be an active participant on the EMS Robotics Club. He or she can provide assistance in any of the following areas:

- Club-related tutoring for students in their area of expertise

- Helping with either the build or business side of a team
- Additional limited supervision during events and activities
- Assistance in planning and team operation

Our team is student-led, meaning the students get to make many of the decisions as well as take responsibility for those decisions. The mentors are there to guide and teach the students. If a mentor feels some guidance and teaching is necessary, then the students should stop, listen, and consider the guidance. If the student disagrees with the guidance, then the mentor should let the student learn by experience whether positive or negative. When it comes to working on the robot or other projects, students should be doing the bulk of the work. Mentors can help students with specific tasks on the robot but should not be working on the robot individually. If a student feels a mentor is doing too much of the work, then they must respectfully talk to the mentor and raise their concern with the club sponsor.

A mentor must have the following qualities:

- Proven leadership skills
- Experience or desire to work with youth
- Strong moral character
- Reliable, trustworthy, and organized
- Enthusiasm for the program
- Availability and commitment
- Ability to pass an EMS background check

All mentors are expected to behave appropriately at all times. They are role models for the students and should exhibit a commitment to the team as well as enthusiasm for the program. Interaction with the students should always be professional. Failure to adhere to this policy or any above will be grounds for your removal from the club.

Procedures

Confidentiality

Participants in the EMS Robotics Club should have a willingness to share ideas and design concepts with other teams, and to offer help to anyone who asks for it, within the club or outside of it. However, we believe that helping others work through the engineering process is much more effective than giving away fully-formed solutions and designs.

Members are not permitted to disclose any ideas, designs, documents, photos, or videos to anyone not affiliated with their EMS Robotics team without the explicit approval of their team captain and club sponsor. Confidentiality is taken very seriously and is punishable up to dismissal from the club.

Safety

- When finished using a tool, it must be returned to its designated location in the lab. At the end of every work session, all tools and materials must be put away.
- If a member leaves before a work session is over, that member must clean for at least fifteen minutes before leaving. Members must announce to a mentor when they begin cleaning for credit.
- Safety glasses are required at all times in the workspace, where any tools are being used, or where a robot is being operated.
- Loose hair and long clothing must either be tied back or removed before a member is permitted to power up a tool, robot, or sub-assembly.
- School staff and mentors always have the final word in any situation where safety is at stake. This is due to the hazardous nature of Robotics.
- Failure to comply with the established rules will result in disciplinary action by mentors and/or dismissal from the lab.

Meetings

- Team meetings are where the majority of the work for the EMS Robotics Club is completed. Therefore, it is essential that every student make every attempt to attend our meetings. Students are expected to attend weekly club work sessions as well as additional weekly build sessions as agreed on by their team and mentors. While missing some meetings is acceptable, frequent absences can result in removal from the club or loss of privileges and position.

- Students are expected to work to their fullest potential at all times, and to use “down time” to help other teams or clean up and organize the work space.
- Members must partake in a robotics related activity if they are in the lab. If a member is caught not participating they will be asked to leave the lab, and may be counted absent for that day. Horseplay and games will not be tolerated.
- Students should save food for before and after meetings, but are encouraged to bring labeled water bottles to each meeting and event.
- Above all else, **safety is our first priority!** If at any time you feel unsafe please tell a mentor and/or the club sponsor. If you do not know how to use a tool or certain equipment, please let a mentor know before using it! Proper tool safety is imperative to running a safe facility.

Absences

Students must attend a minimum number of work days during the club’s season. Students who miss more than 7 work days are not eligible to compete as a member of their team, and may be removed from the club at the club sponsor and school administration’s discretion.

Events

Team members must be in good standing with the club in order to attend any events. This includes meeting the necessary grade requirements and attending a minimum number of work days during build season.

- Students will follow all club rules and adhere to the RECF Code of Conduct at all times.
- At no times are students to be playing any sort of video, board, or card game during competition. Remember, you represent our community, school, and team, and playing games during competition is highly looked down on by others. If anyone is caught playing any sort of game, those games will be confiscated for the remainder of the competition and given back only to the student’s parents. If the student is caught again, they may risk forfeiting any positions they have on the team. In other words, do not bring games to competitions!
- There are many roles and jobs throughout the competition and every person’s role is vital to the success of their team. If you are unclear of your role at an event, please talk to your team captain and mentor, but do not just start doing a job because you feel like it or are bored with your current one.

- During competition if you do not have a specific role for some time, please look into helping with scouting (gathering information on allied and opposing teams, including robot design & driving strategies). Scouting is an essential operation for the success of our teams on the field and we need as many students as possible to help out throughout the competition.
- When in the stands please cheer for our teams! It makes a huge difference to the people on the field hearing our club members cheer for our success. Remember, just like at EMS assemblies, we praise and cheer without any booing or negative comments.
- Above all, please think! If you think something may be a bad idea, it probably is!

General Expectations

- **Good Attendance, Punctuality, and Dependability:** A team member needs to be available and ready to participate as much as possible. When asked to participate, establishing a record of dependability and punctuality is essential to team organization and efficiency.
- **Consistent Demonstration of Being Responsible, Respectful, and Engaged:** Each team member is an ambassador of our club. Team members need to be role models for other students to emulate and respect. Solid behavior choices should be demonstrated at all times, in and out of school activities.
- **Ability to Commit to a Project:** Starting a project and following it through to the end is critical to team performance. Team members need to dedicate themselves and not get sidetracked or discouraged.
- **Ability to Work Both Independently and as a Team Member:** Being a team player and doing what is needed for the team is an asset to all. However, working independently with little or no direction shows dedication and willingness to learn.
- **Demonstration of Honesty and Integrity:** A person of good character consistently demonstrates honesty and integrity in their personal, academic, and work life.
- **Acceptance of Failure as a Tool for Learning:** Many successful people fail quite often, but then learn from the mistakes made and move forward, taking their failure in stride. A team member who has this ability can go far in the team and beyond.

- **Positive Behavior at Events:** Events like competitions are key parts of the robotics program. This is one area where our team values and the RECF Code of Conduct come into play and are extremely visible to everyone. All eyes are on you every minute you are in public. Your behavior is a direct reflection on your character and on our team. A judge or member of another team may overhear what you say to one another and how you say it, and their judgement of you can affect the entire club. Even the expressions on your face and body language may bring unwanted negative attention and bad impressions.
- **Games, Mobile Devices, and Other Distractions:** Cell phones, headphones, earbuds, games, toys, and other distractions are not permitted during team meetings or events. During team meetings and events, electronic devices may only be used for work that directly pertains to the engineering process or other facets of team management. In the event that you are found to be misusing a mobile device or other distraction, it will be confiscated and given to your parent or guardian. Additionally, if you continue to violate this policy your membership in the club may be compromised. You represent your community, school, club, and team wherever you go. Being distracted instead of helping reflects negatively on both yourself and the rest of the club.
- **Student and Mentor Interactions:** For the EMS Robotics Club to be successful there must be an excellent working relationship between the students and the mentors. This means that both the students and the mentors must treat each other with respect and work together.

Failure to Adhere to Expectations

Occasionally, students fail to adhere to the expectations set by Erie Middle School and the EMS Robotics Club. In these cases certain disciplinary measures may be taken against offending students at the judgment of the club sponsor or school administration.

Probationary Measures

If students are struggling with certain areas of the team or are not holding up to expectations, they may be put on probation. Probation will be assessed on a case by case basis, but will always include a written document specifying why the student is on probation, and expectations for improvement along with a timeline for improvement. This document will be signed by the club sponsor, a parent or guardian, and the student. Failure to show improvement could lead to removal from the team or further probationary measures.

Removal from Team

If students do not show improvement from probationary measures placed upon them, they may be removed at the discretion of the club sponsor as detailed in the probationary document and in accordance with school policies. In rare circumstances, students may be removed from the team without going through probationary measures. This will only be done in the following situations.

- If a student causes significant safety risks to themselves or others without making changes when prompted
- If a student causes significant disturbances to the team and fails to make changes when prompted
- If a student lies or cheats a significant number of times or about a major topic
- If a student threatens or harasses any other student, mentor, or individual in any way
- If a student commits any major offences as discussed in the EMS student handbook in relation to the team
- Excessive absences from club or team work sessions or competitions
- Any other situation that is first approved by the club sponsor and school administration

Erie Middle School Robotics Club Student & Parent/Guardian Contract

By signing I acknowledge and understand all points listed below:

1. I have read the handbook describing the Erie Middle School Robotics Club and agree to comply with the policies outlined within.
2. Participation in the program requires attendance at mandatory events, and I will comply with the schedule of said events.
3. The equipment used during construction of the robot can cause serious harm injury if not used correctly. I understand that members are not permitted to use any piece of equipment until they have been instructed on its safe use and are not permitted to use any piece of power equipment without adult supervision.
4. I agree and consent to allow my photographs, name, or comments to appear in media related to the EMS Robotics Club.
5. I understand that violation of any of the policies above is punishable up to and including dismissal from the team.

Student Name

Parent's Email

Student Signature Date

Parent Signature Date