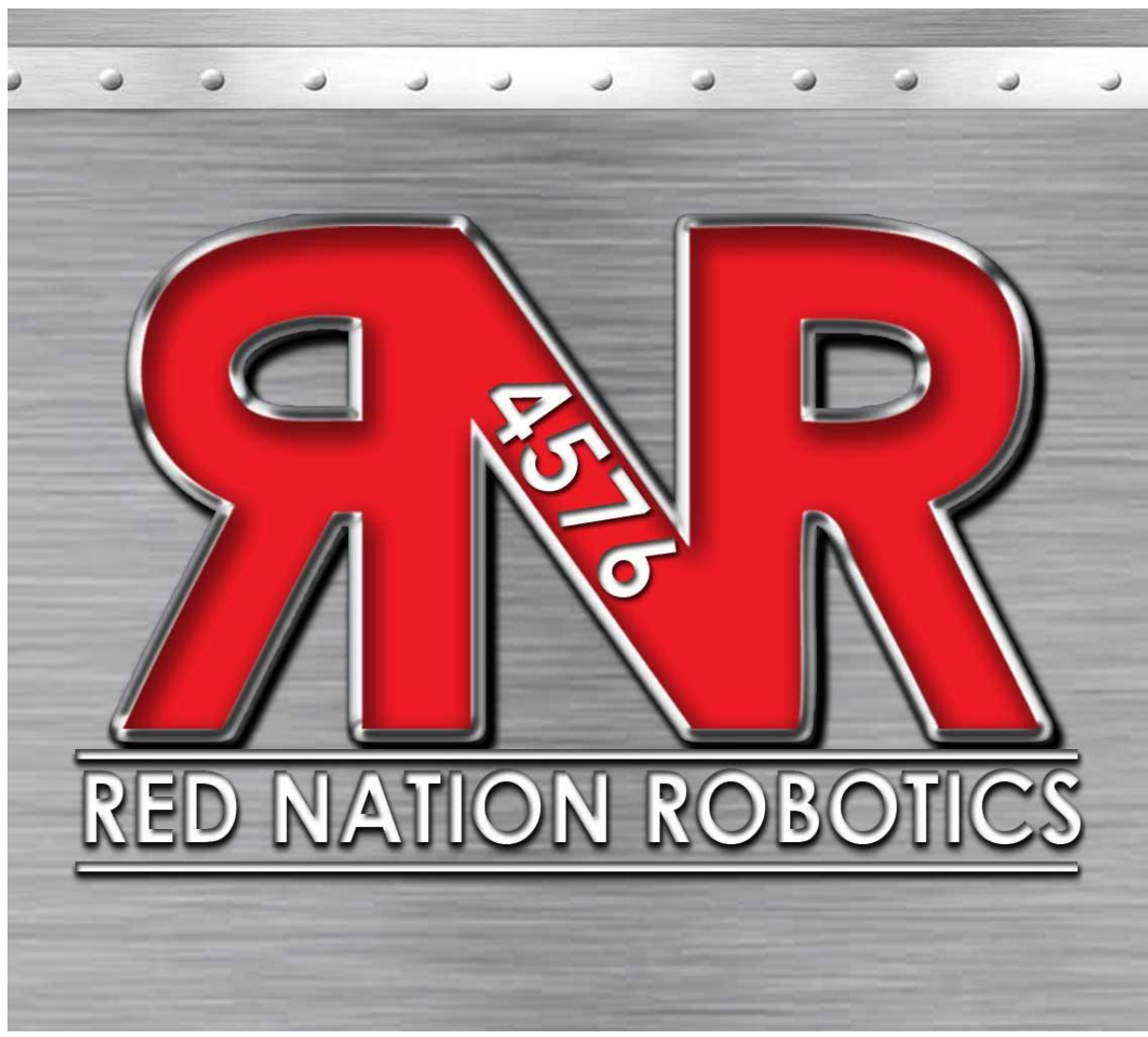


FIRST[®] Robotics Competition (FRC)
Team 4576 - Red Nation Robotics



TEAM HANDBOOK
2018-2019 SEASON



PREFACE

1	FIRST® ROBOTICS	1
	<ul style="list-style-type: none"> • What is <i>FIRST</i>®?..... 1.1 • Founder 1.2 • History..... 1.3 • Mission..... 1.4 • Vision..... 1.5 • Work Ethic..... 1.6 • <i>Gracious Professionalism</i>® 1.7 • <i>Coopertition</i>® 1.8 	
	ABOUT US	2
	<ul style="list-style-type: none"> • Summary..... 2.1 • Mission Statement..... 2.2 • History & Awards..... 2.3 • Why are we unique?..... 2.4 • Team Motto..... 2.5 • Values..... 2.6 • Community Outreach..... 2.7 • Team Contacts..... 2.8 	
	MEMBERSHIP	3
	<ul style="list-style-type: none"> • Criteria for Membership..... 3.1 • Junior Members 3.2 • Fees..... 3.3 • Uniform..... 3.4 • Academics..... 3.5 • Expectations..... 3.6 • Discipline..... 3.7 • STIMS..... 3.8 • Safety..... 3.9 • Partnership and Leadership..... 3.10 	
	TEAM STRUCTURE	4
	<ul style="list-style-type: none"> • Team Members..... 4.1 • Team Leadership..... 4.2 • Sub Teams..... 4.3 • Parents..... 4.4 • Project Management..... 4.5 	
	TEAM MEETINGS	5
	<ul style="list-style-type: none"> • Build Season..... 5.1 • Non-Build..... 5.2 • Other Recommendations..... 5.3 	

• Absences.....	5.4	
• Facilities.....	5.5	
• Member Pick-Up.....	5.6	
• Inclement Weather.....	5.7	
COMMUNICATION.....		6
• Email.....	6.1	
• Slack.....	6.2	
• Google Calendar.....	6.3	
• Remind.....	6.4	
• Trello.....	6.5	
BEHAVIOR		7
• Visible Character.....	7.1	
• <i>Coopertition</i>	7.2	
• Inappropriate Behaviors.....	7.3	
• Public Display of Affection (PDA).....	7.4	
• Discipline	7.5	
MENTORSHIP and PARENTAL INVOLVEMENT.....		8
• Mentorship.....	8.1	
• Parent Involvement.....	8.2	
• NEMO.....	8.3	
• Alumni.....	8.4	
FUNDING.....		9
• Events.....	9.1	
• Example Budget.....	9.2	
• Sponsorship Information.....	9.3	
COMPETITION		10
• Protocol.....	10.1	
• Competition Season.....	10.2	
• Competition Roles.....	10.3	
• Regional Events.....	10.4	
• Championships.....	10.5	
• Other Competitions.....	10.6	
• Expenses.....	17	
• Policies.....	18	
• Required Forms.....	19	
TRAVEL		11
• Travel Expenses.....	11.1	
• Member Assistant for Travel.....	11.2	

- Travel Policies..... 11.3

CONTENTS

SECTION

- Forms Required for Travel..... 11.4

FIRST CONTACT INFORMATION..... 12

COLLEGE AND CAREER OPPORTUNITIES..... 13

TEAM NORMS..... 14

MEMBER FORMS..... 15

- Member Application..... 15.1

- *FIRST* Consent and Release..... 15.2

- Travel Forms..... 15.3

THANK YOU 16

PREFACE

The Team Handbook is intended to provide you and your family with information about the program and your responsibilities as a team member and parent. Please read it carefully and discuss the information with your parents/guardians.

1 FIRST® ROBOTICS



1.1 What is FIRST?

FIRST® For Inspiration and Recognition of Science and Technology is the world's premier high school robotics program.

1.2 Founder

Dean Kamen is an inventor, entrepreneur, and tireless advocate for science and technology. His passion and determination to help young people discover the excitement and rewards of science and technology are the cornerstones of *FIRST*.

1.3 History

From our beginning in 1992 with 28 teams in a New Hampshire high-school gym, to reaching close to 250,000 young people and the *FIRST* Championship held in the Edward Jones Dome in St. Louis, Missouri, *FIRST* has a rich history. Review past games, challenges, and the elite *FIRST* teams over the years.

1.4 Vision

FIRST was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, NH, the 501 (c) (3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills.

1.5 Mission

The *FIRST* mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

1.6 Work Ethic

The message of *FIRST* is to inspire people, schools, communities, and the world to recognize and appreciate science and technology. What makes *FIRST* unique are two core operating principles: *Gracious Professionalism®* and *Coopertition®*. These two approaches instill an integrity and empathy into team work and competition.

1.7 Gracious Professionalism®

Gracious Professionalism is part of the ethos of *FIRST*. It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community.

With *Gracious Professionalism*, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended.

In the long run, *Gracious Professionalism* is part of pursuing a meaningful life. One can add to society and enjoy the satisfaction of knowing one has acted with integrity and sensitivity.

1.8 *Coopertition*[®]

Coopertition produces innovation. At *FIRST*, *Coopertition* is displaying unqualified kindness and respect in the face of fierce competition. *Coopertition* is founded on the concept and a philosophy that teams can and should help and cooperate with each other even as they compete.

Coopertition involves learning from teammates. It is teaching teammates. It is learning from Mentors. And it is managing and being managed. *Coopertition* means competing always, but assisting and enabling others when you can.

2 ABOUT US

2.1 Team Summary

FIRST Robotics Competition (FRC) Team 4576, Red Nation Robotics (RNR™), was formed in 2012 by science, math and engineering teachers at Halls High School. Known as Red Nation Robotics, the team began with 11 members from Halls who turned the old wood shop classroom into the robotics lab. Today, the team consists of 40+ members and 3 faculty mentors, 5 non-faculty, and 10 alumni mentors.

2.2 Mission Statement

Halls High School Mission: Our goal is to prepare each student to be, thoughtful, confident, and self-reliant, equipped with the knowledge and integrity to face the challenges of his/her complex world.

2.3 Team History and Awards

Red Nation Robotics experienced a phenomenal rookie season! Working with other area schools through *Coopertition* and *Gracious Professionalism*, Team 4576 won the honors of attending the FRC Championship Competition in St. Louis, MO. The team used that experience as motivation, working harder and smarter our second season and each season thereafter. This passion for improvement continues to drive the team today. Please see below for a chronological list of achievements.

<u>Season</u>	<u>Event/Achievement</u>	<u>Location</u>
2012-2013:	Winner, Smokey Mountain Regional Participant, FRC Championship	Knoxville, TN St. Louis, MO
2013-2014:	First Alternate, Palmetto Regional Creativity Award, Smokey Mountain Regional Semifinalist, Smokey Mountain Regional	Myrtle Beach, SC Knoxville, TN Knoxville, TN
2014-2015:	Quality Award, Award Quarter Finalist Palmetto Regional Quarter Finalist, Smokey Mountain Regional	Myrtle Beach, SC Knoxville, TN
2015-2016:	Regional Finalist, Arkansas Rock City Regional Quarter Finalist, Smokey Mountain Regional	Little Rock, AR Knoxville, TN
2016-2017:	Participant, Arkansas Rock City Regional Quarter Finalist, Smokey Mountain Regional Quality Award, Smokey Mountain Regional Woodie Flowers Finalist Award, Morgan Everett	Little Rock, AR Knoxville, TN Knoxville, TN Knoxville, TN

2017-2018:	Regional Finalist, Arkansas Rock City Regional	Little Rock, AR
	Quarter Finalist, Smokey Mountain Regional	Knoxville, TN
	Newton Field Participant, Houston FRC Championship	Houston, TX

2.4 Why is our team unique?

Team 4576, Red Nation Robotics is unique to the *FIRST* family because of our members. Halls High School is a rural school on the edge of Knox County and our members respect tradition while being innovative. Our Career and Technical Education Center thrives with students learning hands-on, real world applications and our Robotics team is an extension of that. Also, the technical and engineering component of robotics attracts more college bound members looking for a career in a STEM field. Our members come from other neighboring schools not just Halls High School, so we are truly a team bringing our Community together. We have an eclectic team that bring a vast spectrum of strengths, perceptions, and ideas that make Red Nation Robotics.

2.5 Team Motto

Making robots, building leaders™

2.6 Values

Red Nation Robotics is guided by principles we believe are essential to character and team. Here are our values:

- **Hard Work**-Having the ability to push yourself in an effort to complete a task.
- **Commitment**-Having a dedication to the team to complete and compete.
- **Honesty**-Not being deceitful or misleading in action or word.
- **Mistakes**-Having the ability to be incorrect and learning from your error.
- **Punctuality**-Arriving on time to events, meetings or practices.
- **Respect**-Treating everyone with regard for his/her feelings.
- **Positive Attitude**-always looking for the best solution and NEVER giving up.
- **Volunteering**-Giving of yourself in time or deed without expectations of return.

2.7 Community Outreach

One of our values as an FRC team is giving back. Throughout the season, RNR extends our time and resources to spread the word about FRC and STEM/CTE clubs like Robotics. Our current outreach activities are :

- Mentoring FLL team at Halls Middle School
- Beginning FLL team at Halls Elementary School
- Community service with the Halls Woman's League
- Knox County Schools 8th grade Career Fair

2.8 Team Contact

Facebook: www.facebook.com/robotics4576

Twitter: @RNR4576

Main Contact: Mr. M. Morgan Everett
Engineering Teacher
Email: morgan.everett@knoxschools.org
Phone: (865) 922-7757

3 MEMBERSHIP

Unlike most Varsity team activities at district High Schools, Team 4576 has no try-outs or entrance requirements. Red Nation Robotics is an open team, welcoming all who wish to participate. The wide variety of experiences and opportunities offers members the chance to find her/his niche in the team. While there are no pre-requisites for joining the team, Team 4576 has standards of participation and behavior that are necessary for the success of each member and for the team as a whole. Meeting these standards provide individuals the opportunity for the privileges of leadership positions, travel opportunities, and recommendations for possible scholarships.

3.1 Criteria for Membership on Team 4576

1. **Members must maintain academic eligibility.** Red Nation Robotics rules require that all team members maintain good academic standing. Members must be aware that falling into Academic Probation will mandate a loss of eligibility to be on the team. During the build season in January and February, team members must maintain a minimum average of 70 in each class. Any member whose average drops below this minimum must conference with mentors during a two-week probationary period, after which time an evaluation of further participation will be made.
2. **Members attend meetings during non-build season whenever possible, a majority of the build sessions during build season, and team functions as necessary.** Team 4576 participates in skill development programs and outreach events throughout the year. With the understanding that bright members often have varied interests and commitments, team members stay informed of team events and participate as much as possible. Establishing a record of dependability and punctuality is essential for team organization and efficiency.
3. **Parents of members are encouraged to participate actively in team activities and help in team operations.** Without the participation of generous and experienced team parents, members are well aware that opportunities would be very limited. Appreciation and respect for these volunteers is central to Team 4576.
4. **All members must take the Team Safety course.** The Robotics Lab Safety Course is the foremost activity for each member before using the lab. Each subteam will outline the steps to prevent accidents to individuals, equipment, or facilities. No member can participate in lab or pit activities without taking this orientation.
5. **Members Must Demonstrate Appropriate Character/Behavior.** All members of Team 4576 rely on each other for the success of the group. Everyone is expected to bring the best of his/her abilities to the group. The competitions are mentally and physically demanding, time consuming and expensive; all involved should behave as motivated young adults with integrity and the greatest regard for others. Members should demonstrate the following attributes:
 - **Good Judgment and Positive Behavior:** Each team member is an ambassador of our team, school, and sponsors to the rest of our school(s) and the community at large. Team members are role models for other members to emulate and respect. Mature behavior, including dedication, competence, patience, and leadership, should be demonstrated both 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 success. Team members need to dedicate themselves and not get side tracked or discouraged. Your word is very important. *Don't take on a responsibility you can't perform. Ask for help if you are having problems with a project.*
 - **Ability to Work Both Independently and as a Team Member:** Being able to be a team player, or *doing what is needed for the team*, is an asset to all. However, working independently when necessary shows dedication and willingness to learn.
 - **Demonstration of Honesty and Integrity:** Honesty and integrity are foundational attributes of a quality person. Our teamwork depends on the integrity of its members the way a robot depends on the integrity of its parts. Integrity includes knowing what a person believes in as well as leading in word and deed.

- **Time to Spend on Activities:** This team requires many hours of a member's time. Careful planning and scheduling are required to stay actively involved.
- **Respect for the Work Areas:** All members participate in keeping the work areas clean and organized as they work, and in particular, at the close of each workday. This is critical for safety and shows respect for the fact that this is space donated to us. It is respectful to our mentors to own the responsibility of keeping the workspace clean.
- **Appropriate attire:** Proper clothing should be worn for safety purposes and out of respect for team participation.
- **Appropriate focus:** As membership on a robotics team involves a great investment of energy, skill, money, thought, cooperation, and time from people at so many levels, team members should participate with good focus. Attention to the task at hand is essential for safety and success in our goals. At events and in the workshop, members should avoid distractions that can compromise both team goals and opportunities for personal growth in the field of technology.

3.2 Junior Team Members

A limited number of junior members will be allowed to participate each year as determined by the lead mentor. Members wishing to join in this junior capacity should apply with the lead mentor, who will determine space availability for each season. Junior members have a serious work ethic, a desire to experience aspects of engineering, intentions to participate on Team 4576, and the maturity to work independently. As the demands and responsibilities of *FIRST* challenges are extensive, some limitations may apply to this junior membership.

3.3 Fees

New members need to pay \$100.00 fee that covers the cost of one club T-shirt, one team Polo, and one competition T-shirt. Veterans are expected to pay \$50.00 (unless they need a new polo, then they pay the full \$100). This fee is due by date specified.

3.4 Uniform

As a team we wear three uniforms, this is because we have three days of competition. The uniforms are the Polo, competition T-shirt, and preseason T-shirt. We ask that the competition T-shirt be worn with jeans, Mentors and team leads will wear more formal pants. Jeans must not have holes in them, or be worn in a sagging manner. There will be other uniform or team gear available for optional purchase. Drive team flight suits will issued on loan if a drive team member does not wish to buy his or her own.

3.5 Academics

Members should put their academic learning before any team needs. Parents are strongly encouraged to communicate with the adult team leaders any academic or other concerns regarding their member. Parents have several ways of monitoring their member's progress. The most immediate would be parent portal. Another method is the standard school eligibility forms that are used for sports. During the Spring semester four week grading periods will be checked. During build season, your member will take a form to each of their teachers every two weeks. If a member is making below a C they will have grade checks once a week. Each teacher will sign off on the member's grade at that point for his or her class. They are then brought home and reviewed.

Homework/Study Hall: In the event a member has down time while at an afterschool function, they are instructed to do homework or get peer/mentor directed tutoring. Also, when traveling, a designated study hall time is scheduled.

RNR reserves the right to withhold travel privileges from any member for performance or behavior that is not consistent with our values.

3.6 Expectations of Team Members

- Attend every work session; advise the appropriate leader of absences.
- Fulfill your assigned responsibilities.
- Be present at and participate appropriately.
- Have an average of 12 hours a week
- Listen for understanding; be willing to be influenced.
- Represent your ideas and opinions respectfully.
- Treat others with respect.
- Value ideas and opinions of others and seek to understand other perspectives.
- Support the decisions of the Team.
- Read and sign the Handbook
- Live our Values
- Have Fun!

3.7 Discipline

The mentors are not here to be disciplinarians. Occasionally, our members may act in a manner that is not in accordance with our values. MEMBERS ARE EXPECTED TO ADHERE TO THE REASONABLE REQUESTS OF THE RESPONSIBLE ADULT PRESENT. If a member's or mentor's action/behavior is deemed to be detrimental to the team by someone on the team, the expectation is that these actions be brought to the attention of the parent and the administration as soon as possible. Verbal warning will be the first step of action. RNR reserves the right to dismiss a member or mentor from the team should they deem this to be the appropriate level of action. RNR team mentors and the parents will be allowed to be present should the mentors need to speak with the member concerning actions/behaviors deemed detrimental to the team.

3.8 STIMS (Student Team Information Member System)

FIRST competitions require members to submit a consent and release for before participating in any *FIRST* event. This can be done electronically through the *FIRST* website (www.firstinspires.org). Parents must be present with the member to complete the form. Mentors will receive verification of completion.

3.9 Safety

During robot building, team members will be exposed to a variety of tools with a wide range of dangers. Since safety is of the utmost importance, each member is required to take and pass (with a 100%) a safety test before they are allowed in the work area. Additional safety tests must be passed (with a 100%) for each power tool the member will use. General safety and specific tool training will be provided. An Injury log will be kept. All injuries must be immediately reported to a mentor. The mentor will immediately report the incident to parents/guardians and Knox County Schools.

3.10 Partnership and Leadership

For RNR to fulfill our Mission, we must form a partnership between mentors and members. Partnership means that each partner recognizes and respects the roles of the other(s). We use the term team to refer to the organization; like a sports team, our success will depend upon individual performance. Also like a sports team, our success requires that each individual perform their assigned responsibility and trust that their team members perform their respective responsibilities.

To be effective and successful, the team needs leadership. While members and mentors are equal members, we recognize that leadership requires skills and experiences that may not be inherent in every individual. Therefore, we ascribe

leadership roles to those who demonstrate the commitment, expertise and values required of an effective leader. In general, mentors will provide leadership and we will practice situational leadership; that is, different individuals will be expected to provide leadership at different points in the process or for different functions. (Note to members specifically: leadership is about influencing the outcome. It is possible (and a valuable skill) to influence the outcome without being the designated leader.)

4 TEAM STRUCTURE

4.1 Team Members

Members of the team participate in areas that interest them. For those with the desire and aptitude, there are positions open for individual members to demonstrate and enhance leadership skills. Members who wish to be considered for these positions are typically veteran members with at least a year's experience on the team.

4.2 Team Leadership

Each of the subteams has one mentor-appointed subteam lead and an assistant leader who is learning how to be a lead and manages the lead's responsibilities when the lead is unavailable. Team Leadership is made up of the leads from the subteams listed below. Subteam leaders recruit and train new members, keep their subteam members on track, and communicate the subteam status and needs to the other team leads and mentors. The subteam leads excel at the criteria for membership stated in the previous section. Applications for team leadership are available after the build season. Also note that whenever possible, the assistant is in a lower grade than the lead.

4.3 Subteams

Team 4576 is made of several Subteams that coordinate throughout the year. By dividing into specialized groups, members are able to focus on specific goals of *FIRST*. Members may participate in both technology and outreach teams, the two categories of subteams. All members participate in outreach teams for at least the pre-determined number of hours each year. This participation furthers the goal of sharing the appreciation for science and technology, which is the reason we exist. As seasons vary according to the demands of the challenges put forward by *FIRST*, our structure is organized but also fluid enough to adjust to new requirements. The following is a list of many but not all of the subteams:

Build Team: This team fabricates and assembles the robot during the build phase. The jobs vary depending on the direction of the mechanical mentors and the abilities of the members. They are ready to make revisions and repairs at competitions and throughout the season. Governed by a lead engineer, members will work seamlessly with design.

Programming Team: This team works on the design and construction of the control panel, and develops the Java-based software necessary to drive the robot in both autonomous and teleoperated modes.

Design Team: The Design Team develops robot designs. They research other team ideas by participating in web forums (such as ChiefDelphi). They develop 3 dimensional models of the robot using tools based on robot strategies and prototyping efforts. CAD members electronically draw each part of the robot during the design phase of the build season, so that all parts are documented and reproducible. Overseen by the lead engineer, members will work fluidly with build.

Strategy: Strategy works to maximize scoring by analyzing the field of play and the rules of the game. They then work vigorously with both programming and build/design to ensure that the machine is capable of effectively fulfilling the its envisioned role.

Business Team: The Business Team develops relationships with local businesses for sponsorships, as well as handles all fundraising activities that keep the team building. Business Team works closely with the Marketing Team to plan and

execute Team events. This team works closely with the Outreach Team to coordinate events and promote *FIRST* and its values. This team writes submissions for the various awards, such as the Chairman's Award and Woodie Flower's Award. During competition, this team often speaks directly to groups, judges, and the media, and is typically stationed outside the pit area to greet other team members. The team builds the visual archive of various aspects of the season.

Marketing/Media/Outreach Team: From press releases to sponsor letters to information brochures, this team promotes the visible face of the Red Nation Robotics. Additionally, they set up the structure of Team 4576, streamlining the numerous areas that *FIRST* requires. While they also focus on funding the team, their communication skills keep our goals organized, greased, and running. This team works closely with the Outreach Team to coordinate events and promote *FIRST* and its values. The more our sponsors share our belief in what we do, the more enthusiastic is their response. This Team photographs all events and or takes video clips for such things as our website, newsletters, sponsor and training materials. Members develop our Team website- www.rednation4576.com

5 TEAM MEETINGS

Team 4576 operates throughout the year. Members determine their level of involvement as they participate in the various opportunities provided by a *FIRST* team.

5.1 Build Season

During the intense competition season in January and February, a demanding schedule of six days a week can be typical. Times are determined by the availability of mentors and members. Team members prepare for this time commitment by using time wisely, focusing on their grades as well as team goals, exercising choices for good health, and planning ahead. Parents share in the commitment by providing meals, driving, and mentoring in the many areas of the competition. The intensity of the demands is reflected in the intensity of the enjoyment of the competitions that begin at the end of February and can continue into April.

5.2 Non-Build Season

Outside of January and February, members work on many aspects of preparation and skill building. This is the time that each team member's focus of interest develops so that he/she can determine which subteams to commit. Strong summer and fall preparation makes for less stress during the competition. There are some specific tool skills that all members should learn during this time. These include competently using the tools present in the workshop as well as gaining experience on robots of previous years. Members will learn about the process to design a robot. Mentors present lessons on the use of motors, the control system computer interface and programming language, or other aspects of robot construction. Presentations will also include the process of designing a robot for the *FIRST* competition that will occur during the build season.

Some of the Non-build Season activities include:

- a fall training phase that operates from September to mid-December;
- outreach projects;
- training and support of local FRC teams;
- and competitions where many team members can add experience.

5.3 Other Recommendations

Team members are often very busy in many school activities. A busy schedule is encouraged and supported for the breadth of experience and demanding organizational skills it develops. It is the responsibility of the member to manage and balance all of his/her activities, informing the mentors of any conflicting commitments. Sports teams provide different challenges and different stress upon a member's time. It is important to communicate with coaches ahead of

time, even before the sport season begins, to work out the timing of conflicting activities. Often these conflicts can be accommodated to the satisfaction of both activities. There are some instances, however, where the timing cannot be resolved. In this case team members will have to choose which activity is the priority. Please discuss any problems with a *FIRST* mentor while making challenging decisions.

5.4 Absences

Members are fully expected to be actively involved *and engaged* in team activities. However, our member's ambition carries them into other extra-curricular activities and scheduling allows some team members to be more fully involved than others. Generally, attendance is considered an indication of commitment and the level of a member's participation will affect their travel subsidy. If a team member expects to be absent from meeting or activities, they are expected to notify the appropriate mentor. Members will be required to have an average of twelve hours a week.

5.5 Facilities

RNR is very fortunate to have a space dedicated to robotics. The Robotics Lab is recently renovated and we are dedicated to the longevity of the program. The team policy is to leave a space better than we found it. The Robotics Lab guidelines are simply as follows:

Always pick up after yourself, and never leave a team meeting or session without having checked your area and made sure all equipment/tools are put away and the spaces are clean of debris.

**** It is extremely important for tools to be placed back after each use.****

This not only leaves a clean and tidy area (safety), but makes evening clean-up easier. When a tool is needed and it is not where it should be, hours of effort can be lost looking for a tool that could have been used towards completing the robot.

5.6 Member Pick-Up

It is expected that the members will have transportation **no more than 15 minutes past the end of the meeting/event time**. This provides a window for unseen circumstances while respecting the time of the mentors who are expected to wait with the member. If there is chronic (more than twice) tardiness with member pick-up, member privileges will be affected.

5.7 Inclement weather

Per Knox County School Board policy, RNR will not meet on school days that are dismissed early or cancelled due to inclement weather.

6 COMMUNICATIONS

Communication, both reading and responding, is vital for team coordination. All members are expected to have an active team email address and to check consistently for team communication. Members AND parents monitor email, Slack, Google Calendar, and Remind at least once a day, and twice a day during build season. Responding to messages and communicating plans and ideas is not only productive, but respectful.

6.1 EMAIL

All members are required to create and use a Gmail account according to the established naming convention. The convention is as follows:

[First initial][Last name].4576@gmail.com

Please note that the brackets [] are only placeholders. Do not type them when creating your email address. Also, do not use spaces.

Example:

A member whose name is John Smith would have this address: *jsmith.4576@gmail.com*

- If this address is unavailable, add the next letter of the first name: *josmith@gmail.com*
- Subsequent attempts to create a valid address should incrementally add more letters of the first name.

Please create a password that you can remember. It is also recommended that if you have a smartphone, you should add this account to your email app or download and use the Gmail app.

6.2 SLACK

We strongly recommend that all members and parents (at least one) request to join Slack. Need-to-know information and reminders are reiterated here, and it serves as a discussion and directives forum for subteams. The parent channel is a discussion forum for parents and mentors.

To request an account, email morgan.everett@knoxschools.org once you have created your new Gmail account (members only, parents can use an existing email account). Please use the subject *add me to Slack*; failure to use this subject will result in the bot not adding you. Please include your name in the email, and signify Parent or Member. Once your request is added, you will receive an email from Slack with instructions on creating your account.

Slack Etiquette:

Business only is to be discussed in the #general channel. The #random channel is for banter or tomfoolery. Parents will be added to #general and #parents (this prevents you from being notified of unnecessary chat). Members will be added to a subteam once they decide which one they are working with.

Further information about Slack, including how to get the app or sign in from a web browser can be found here: <https://goo.gl/q6q3p6>. When asked for a domain when signing in, it is **rn4576**.

6.3 GOOGLE CALENDAR

The Google calendar is updated regularly. New events; event cancellations; and important dates; such as fee, permission, and other due dates, are posted to the calendar. The calendar also posts to the #general channel in Slack. Weekly summaries are posted on Sunday, reminders one day before they happen, and the day of the event.

It would behoove all members, parents, and mentors to add the calendar to your calendar app. Below are the addresses to add the calendar. The HTML address can also be used to view the calendar in a web browser. If you don't have access to this link, you can retrieve it by typing *?cal* in the #general channel of Slack.

HTML: https://calendar.google.com/calendar/embed?src=ep93rvn3mosen5eipqvrs2tf0c%40group.calendar.google.com&ctz=America/New_York

iCal: <https://calendar.google.com/calendar/ical/ep93rvn3mosen5eipqvrs2tf0c%40group.calendar.google.com/public/basic.ics>

Please refer to the help documentation of your calendar app to determine how to add a new calendar and which type of address to use.

6.4 REMIND

Remind serves as a rapid form of communication. Remind allows mentors and leadership to send messages directly via SMS. Once you sign up, all Remind messages will be received as a text message. When Remind was first adopted as a communication tool, it was one way. Since then, they have added the ability for users to respond to the messages. Please know that if you respond to a Remind message, **it may not be seen for some time**. This is the result of how Remind handles responses. If you need to respond, Slack or email are preferred, in that order.

6.5 TRELLO

Our project management is based on Scrumban. Trello serves as a digital project management tracker. Trello allows mentors, leadership, and members to quickly see what tasks are outstanding, being worked, and done for each subteam. Once you have your team email, get with your subteam lead to get added. Trello can be accessed through an internet browser or a smartphone app. If you ever find yourself wondering what you should be working on, check Trello!

7 Behavior

In that Gracious Professionalism as defined by *FIRST* is central to participation in *FIRST*, a team member's behavior is under scrutiny at all times. Members represent Red Nation Robotics, our corporate sponsors, and *FIRST*. At events, school, or within the community good character described by *FIRST*'s Gracious Professionalism should be inherent in our thinking and in our actions.

7.1 Visible Character

At events, team members' behavior is a direct reflection on the character of our team, school, community, state, and sometimes even our nation. A judge or member of another team may overhear comments and criticisms. The team standard for discussion is high: respecting each other and competitors is essential at all times.

Within the team, conflicts may arise as a result of the close nature of team projects and travel. All team participants should stay positive and constructive, refraining from rumors and negative comments about one another. If a problem arises, a member should speak to a mentor immediately. Physical conflict is not allowed. If a physical confrontation arises, both members may be disciplined up to and including termination of membership.

7.2 *Coopertition*[®]

Members need to be cooperative at all times, including cooperating with requests of mentors and parent leaders. Ignoring the directions or request of a mentor is not in the team's best interest. If a team member feels that a request is out of order, he/she is encouraged to complete the task and then speak to the mentoring staff at a later, more appropriate time.

Coopertition, coined from an earlier *FIRST* competition, is the friendly but competitive guideline for cooperating with other teams. This term demands a healthy balance of helping whenever possible while competing to the best of our ability.

7.3 Inappropriate Behaviors

These behaviors include but are not limited to: running, pushing and shoving, (negative) name calling, leaving a disorderly workspace, fighting, swearing, stealing, and all other activities that reflect negatively on the team. Conversations that undermine team unity and respect for leaders are not only counterproductive, but destructive. Words either build up or tear down—if it is not constructive, it is inappropriate.

7.4 Public Displays of Affection (PDA)

In order to reflect a professional demeanor, handholding, hugging, kissing and other expressions of affection are prohibited during team meetings, build sessions, competitions, and trips. The couple must also travel in a group at all times. Couples may not wander off or sit alone. In other words, they should not appear as a couple but as part of the team. Common sense should prevail at all times.

If a member's behavior is found to be unsafe or otherwise inappropriate, the member may be disciplined as necessary by a mentor for the overall good of the team. The lead mentor will be apprised of the situation, so that policies can be enforced. The member's parents will be informed of any disciplinary actions as soon as possible.

7.5 Discipline

The mentors are not here to be disciplinarians. Occasionally, our members may act in a manner that is not in accordance with our values. MEMBERS ARE EXPECTED TO ADHERE TO THE REASONABLE REQUESTS OF THE RESPONSIBLE ADULT

PRESENT. If a member or mentors action/behavior is deemed to be detrimental to the team by someone on the team, the expectation is that these actions be brought to the attention of the mentors and the parent/guardian as soon as possible.

Intervention:

1. Verbal Warning
2. Documented Conference of Concern including Corrective Action Plan
3. Suspension
4. Dismissal

RNR reserves the right skip intervention steps up to dismissal of a member or mentor, should the situation require this to be the appropriate level of action. RNR team mentors and the parents will be allowed to be present should the mentors need to speak with the member concerning actions/behaviors deemed detrimental to the team.

8 MENTORSHIP AND PARENTAL INVOLVEMENT

Mentors and parents are vital to a team's success. Without them, members' ideas may not be realized. Mentors bring their experience to share with the members and help teach them how to be successful. We are fortunate to have engineers, programmers, and other professionals willing to commit a significant portion of their personal time to work side-by-side with the members.

8.1 Mentorship

Any parent/guardian, relative, or acquaintance is invited to become a team mentor. Anyone with professional experience can be a great asset to the team. Whether you work or have worked in technical or business fields, we invite you to share your expertise with our members. You do not have to have engineering experience. Our team is a total enterprise. We need artisans from technical and non-technical fields to support all our subteams such as: business, finance, marketing, photography/videography, and graphic design. So please, consider sharing your talents with the team. You might even find yourself learning from them.

8.2 Parental Involvement

Parents are indispensable to our team. Parental support is vital to our members' success both academically and robotically. Parents are responsible for keeping their members focused on learning, both on the team and in classes. If a member is struggling academically, parents are encouraged to notify team leaders and identify how mentors may support the parent's efforts. Parents are encouraged to visit the team during the year and during the build season to view the progress of the robot, business model, CAD, programming and much more, as well as travel to the competitions. We urge you to stay informed and involved as much as possible.

8.3 NEMO (Non-Engineering Mentor Organization)

Parents play a vital role in our team's success. We strongly encourage all non-mentor parents to become members of RNR NEMO (Non-Engineering Mentor Organization). NEMO is a support group and information exchange for those adult non-mentors who help our team.

NEMO's are responsible for providing team meals during our build season. They attend the competition events to provide support and enhance team spirit, suggest, organize, run fund-raising events for the team, and help organize the team's awards banquet.

8.4 Alumni

The alumni comprise our former members. They provide support by volunteering at our team events, helping fundraise, and by spreading the word of *FIRST* wherever they go. Our ultimate goal is to see our graduates go on to college, earning a degree, and/or become successful in a career. Further, we hope that they are inspired to return to the team to mentor or to find a team to help in the city where they are located.

9 FUNDING

The team operates primarily from sponsorships, fundraisers, and donations from generous people and organizations.

9.1 Fundraising Events

The Robotics team and parents hold several fundraisers throughout the year. If you have any ideas on potential fundraising opportunities, please let a mentor know. See list below for examples of potential fundraising plans.

- Carwash
- Homecoming tents
- Honey Baked Hams
- Crowd Funding
- KCS Coupon Books
- Discount Cards

9.2 Example Typical Team Budget

<u>Source</u>	<u>Income</u>	<u>Expenditure</u>
Entry Fee/ 1st Regional Event		\$5,000.00
Kick-Off		\$300.00
FLL Event		\$500.00
Playing Field/Game Pieces		\$1,500.00
Robot Parts		\$4,000.00
Tools/Supplies/Misc.		\$3,200.00
Uniforms		\$4,000.00
Food		\$1,000.00
Awards/Banquet		\$1,500.00
Buttons/Flare		\$500.00
4576 SPIRIT Gear		\$4,000.00
2nd Regional		\$7,000.00
Travel Scholarships		\$5,000.00
Championship Event	Only attend if we Qualify	\$18,500.00
Sponsors	\$33,815.95	
Other Fund Raising/Donations	\$2,884.00	
Member Contributions	\$4,000.00	
TOTAL	\$56,069.95	\$56,000.00

9.3 Sponsorship Information:

All donations are graciously accepted and we would love to recognize all of our supporters. The contribution tiers are listed below.

Copper (\$100): Your name will be displayed on HHS Robotics Team sponsors page.

Bronze (\$250): Copper benefits, and you name will appear on the Team's 2018/19 T-shirts.

Silver (\$500): Bronze benefits, plus your logo is displayed on our pit display at competitions and demonstrations through the year.

Titanium (\$1000): Silver benefits, plus your name or logo will be displayed on the Team's 2018/19 T-shirts. (We'll send you one, too.)

Gold (\$2500): Titanium benefits, and your name or logo will be displayed on our 2019 robot, which will be built next January and February.

Platinum (\$5000+): Gold benefits and your name becomes part of our official team name as it's read at competitions. (For example, "Your Company Name/Knox County Schools/Halls High School")

Donations of tools, materials, food, and other items are more than welcome.

Donations of Checks:

Checks should be made payable to: Halls High School Robotics Team. (Please note "Robotics Donation" in the MEMO line)

Mailing Address: Halls High School Robotics Team
Attn: Gabriel Surovey
4321 E. Emory Rd
Knoxville, TN 37938
Contact Mr. Surovey 865-922-7757

All Donations are tax deductible, please contact us with questions.

10 Competition

Our team competes in two regional competitions between the end of February and the beginning of April. Top teams from these events continue on to the *FIRST* World Championship held April 17–20, 2019 in Houston Texas.

10.1 Competition Protocol

There are certain practices that lead to success, setting the team up to earn awards, and the respect of the *FIRST* community.

Cheering: *Cheering is more than just yelling at the top of your lungs!* True cheering is enjoying the event and celebrating the excitement of the moment. While cheering 100% of the time would be exhausting, participation in this experience is not only fun but valuable. Sitting in the stands looking bored or carrying on personal conversations while others are cheering does not encourage team spirit.

Supporting Our Competitors: During the award ceremony, standing applause is the respectful response when other teams are recognized for their accomplishments. Disrespect in any form (booing, jeering) is highly inappropriate.

Greetings: Many mentors and judges return year after year to competitions. Making an effort to show your recognition and appreciation is good sportsmanship and makes *FIRST* more than just a competition.

Litter: Keeping both the pit and seating area in the stands tidy is safe, respectful, and **required**.

Things We Do Not Do at an Event:

- Wear or use personal music devices during times when full attention is needed.
- Play cards or any other games (including but not limited to GameBoy, smartphone, etc.) at an event.
- Sleeping

- Reading
- Engage in negative behavior toward another team or team member.
- Display unsportsmanlike behavior over any decision by a referee or judge.
- Exchange negative remarks to each other, no matter what the situation.

10.2 Competition Season

Team 4576 attends a variety of events year round spanning from February through November. These competitions can range from one to four day events depending on the nature of the event. No matter the length of the event, each event consists of: travel/setup, qualification matches, alliance selections, elimination matches, award ceremony, and packing up/travel back. A Mentor will provide team members and parents with the proper information. Events can range from local events within commuting distance of the school to cross country trips. Travel for overnight trips are arranged by the team. See Travel section for more details.

10.3 Competition Roles

Competitions are important to the team for the goals they present. Each member is assigned to fulfill a role that is vital to our success both on and off the field. Competition roles may carry over from the build season, but students are assigned jobs specific to each event. Team members carry out their roles to the best of their ability. No one job is more important than the other.

Scouting: The Scouting Team includes members with a wide range of skills and knowledge, as scouting involves evaluating the capabilities of the competing robots and recording scores and consistency of performance. Scouting encompasses data entry and analysis of competing robots. The goal is to provide information for “alliance selections,” the process by which teams are formed for the finals of the competition. The importance of this information cannot be overemphasized, as winning combinations are teams that rely on each other for success.

Pit Crew: The pit crew is responsible for setup and teardown of the team’s pit area, robot inspection, and the maintaining of physical sub-systems during the event. Pit crew members must be knowledgeable of the robot sub-systems; efficient, cooperative and professional workers under pressure; and able to work effectively as a member of the team.

Judging Representatives: During the course of each competition, we have the potential to win awards in many areas, from those encompassing the robot’s abilities to those that measure our outreach and team structure. Judging representatives are responsible for preparing judging materials such as handouts, binders, technical documentation, videos, as well as any other required resources. Members represent the team to judges in various interviews, the standards we set in our pit, and even how we act as ambassadors of our team to the public. Judging Representatives must be knowledgeable and effective communicators of all aspects of the team as well as good representatives of the team in general.

Drive Team (4 members): The drive team is responsible for the on-field operation of the robot during the course of the competition. Being a member of the drive team is no small task. Members must have concrete knowledge of all game rules, be able to perform in high pressure, timed situations, possess clear, focused communication skills, work well as a team, and operate our robot to its full potential in a safe manner. Members will be required to attend multiple training sessions each week to prepare for competition events.

Media Team: The media team encompasses all activities related to recording, storing, and sharing media files collected in competitions. Members are responsible for capturing both the team presence and on-field performance. On-field performance should be recorded from multiple angles to provide immediate feedback for the drive team.

Outreach Team: Outreach, including cheering, assisting other teams, networking, and making RNR well known, are also roles that are vital to success and expand relationships with other teams.

10.4 Regional Events

Our team competes with teams from around the nation and world under the Regional Model. Our team will compete at two of the many regional events. Regional events consist of three days of competition, ending in on-field finals and other awards that send the top teams to the highest level of *FIRST* competition. At the *FIRST* World Championship in Houston, Texas teams compete with other teams from around the world.

10.5 Championships

The Championship Competition is very similar to a regional event in many ways, but on a much larger scale. Whereas regional events might have 40 to 60 teams, the *FIRST* World Championship has around 800 teams from all across the country and around the world. (The 700 teams are divided into 8 divisions: Archimedes, Carson, Carver, Curie, Galileo, Hopper, Newton, and Tesla, each with about 100 teams.) In addition to *FIRST* Robotics competitions, there are competitions of *FIRST* LEGO League and *FIRST* Tech Challenge as well.

Team 4576 has attended the Championship Events in St. Louis in 2013 and Houston in 2018. It was an exciting opportunity to travel, meet new friends, and show the world what we can do. They have also been an outstanding educational experience, where we have learned volumes, not only about how to build a better robot, but also about how to build a better team.

The set-up of the Championship Events varies each year. Generally, there is a large stage where there is seating for tens of thousands of people. This main stage will host the opening ceremonies, some matches, and the finals which are played on a field named Einstein. Surrounding the main stage are the division playing fields to hold the seeding events. The division for each team can vary from year to year. In addition, there is a main pit area. Each team has a pit space that is arranged numerically within divisions. Depending on the location of the championship event, the pit area can be near the stage area or, more commonly, a distance away.

10.6 Other Competitions

Our team may participate in pre- and post-season competitions (between May and November). Our involvement in these activities will depend upon financing, timing and the availability of our team members. Most of these competitions are local and will not involve organized travel. Participation in these events is encouraged, as they provide a fun and low-stress chance to let new members experience driving, robot maintenance and repair, and the camaraderie of the rest of the season.

11 TRAVEL

11.1 Travel Expenses

Travel can be expensive. Travel to out of state competition runs between \$300 to \$500. We recommend that you begin thinking about travel costs now. If this number seems insurmountable, please do not let it deter you from participation. However, talk to a mentor about ways that you can begin raising funds and saving money now. The harder we work getting funds, the lower this number can be.

For members wishing to travel, a non-refundable travel deposit of \$100 will be required in January.

Due to the high cost of materials and travel for RNR, we must set achievement goals for members to reach prior to travelling to FRC competitions. Members must put in an average of 12 hours/week during the build season and must have

a semester GPA of 2.0. Member hours are tallied through a sign-in log and their GPA's are checked prior to travel. A member will not be excluded for reaching those goals but will be responsible for the difference in travel expenses.

11.2 Member Assistance for Travel

If for any reason a member needs assistance with the travel fee, please speak with a mentor. Funds are occasionally available to assist families in need. Funds are either available through the team supporters or through the RNR funds. Any request for assistance will be held in confidence. Ideas for raising your travel fees can be provided if you speak to a mentor. We can also offer payment plans should you need it. The due date for the travel fees will be communicated by the first week in January. This is to allow parents and team leaders to assess a member's eligibility for travel. Should the team schedule 2 events and the member is only attending 1 event, only 1 travel fee is due. Individual checks and forms must be submitted for each trip that the member plans to attend.

If circumstances change, a member's travel eligibility may be reconsidered. Every effort will be made to accommodate a member who has earned the privilege to travel, regardless of the timing relative to the departure date.

11.3 Travel Policies

The following policies apply to team events including travel (where appropriate): competitions, demonstrations, fund raising events, etc.

1. All members are to adhere to the KCS BOARD POLICIES <https://www.knoxschools.org/Page/2107>.
2. Curfew Hours and quiet hours for hotel will be 11:00 pm unless specifically noted at the nightly team meeting.
3. Keep in mind that we are not the only guests at the hotel. When in common areas, keep the noise to a minimum. Reports of complaints will result in the curfew being pushed up.
4. Promptness and attendance is required to ensure that the team is on time and on schedule.
5. BOARD POLICY J-220 - ALCOHOL, DRUG, AND TOBACCO USE. Any member not following board policy on possession or use of illegal substances will have parents contacted and will be sent home immediately at the parent's expense. Team discipline up to dismissal from the team will be enforced.
6. BOARD POLICY J-230 - WEAPONS AND DANGEROUS INSTRUMENTS. Any member not following board policy on possession and or use of weapons or weapon-like objects will have parents contacted and will be sent home immediately at parent's expense. Team discipline up to dismissal from the team will be enforced.
7. BOARD POLICY J-210 & J-211 - HARASSMENT, INTIMIDATION AND BULLYING OR CYBER-BULLYING. Any member in violation of this on policy harassment, intimidation and bullying or cyber-bullying will have parents contacted and will be sent home immediately at the parent's expense. Team discipline up to dismissal from the team will be enforced.
8. BOARD POLICY J-270 - CARE OF SCHOOL PROPERTY. Any member not following board policy will be held accountable for the cost or repair of any member's personal or team property. The members and parents will be held accountable for any legal charges incurred because of destruction, theft or abuse of property. Member's parents will be contacted and that contact information will be given to any authorities involved in the incident. Theft within a public area (amusement park, hotel, restaurant, etc.) will be turned over to the authorities. Team discipline up to dismissal from the team will be enforced.
9. LANGUAGE AND ATTITUDE: All members will present themselves as an ambassador of KCS district and RNR Team Sponsors. Members will refrain from lewd or offensive language and remember to treat all participants, drivers, chaperones, directors, and tour adults with full respect. Members not following this policy will contact parents (with a mentor) and explain their actions. Members continuing inappropriate language or attitude unbecoming of RNR

Team Member may be sent home at the parent's expense. Team discipline up to dismissal from the team will be enforced.

10. DRESS POLICY: Not only are you expected to follow HHS dress code but at all times at the competition the team uniform for the current year must be worn. This is not only for Team Spirit, but safety as well. Jackets, coats, hoodies are not to be worn over the team uniform. Should these be necessary, it is preferred that a white long sleeve shirt be worn under the team uniform.
11. Male/Female: At no time shall a member be present or enter the room of the opposite sex.
12. At no time shall a member be present or enter the room of another team.
13. Food and drinks are permitted on the bus, but our team policy of leaving a place better than we left it is in full affect. At no time should any trash be left on the bus. There will be trash bags and paper towels available for cleanup. Should an accident occur, notify a mentor or chaperone so that appropriate action can be taken.
14. You will not be permitted to go home with parents after riding the bus down, unless they give specific written permission, before the trip, to the team.
15. At no times should a team member leave the competition venue or hotel without a mentor or chaperone. When walking around the venue or hotel, please practice the "buddy system" and never go anywhere alone!
16. ANY medications (prescribed OR over the counter) must be submitted to a mentor with directions and a signature from the parent/guardian.

11.4 Forms Required for Travel

KCS Permission Form CI-233

Medical Release Form CI-246 (must be notarized)*

Copy of Medical Insurance Card (only if submitting CI-246)

*Optional, but recommended

12 FIRST® CONTACT INFORMATION

FIRST Website: www.firstinspires.org

FIRST Phone #: 800-871-8326 or 603-666-3906

Discussion Forum: www.chiefdelphi.com

13 COLLEGE AND CAREER OPPORTUNITIES

The *FIRST* Robotics program is an excellent way to explore the career of engineering. During this program, students are exposed to many principles of engineering and the mentoring skills of the engineers. While not all students will go into the field of engineering, team members benefit from discovering the many careers in and associated with engineering. For this purpose, the connection between mentors and team members is invaluable.

There were over \$50 million worth of scholarships available to *FIRST* members from over 220 scholarship providers all across the country in 2017! Information listed on the *FIRST* web site at <https://www.firstinspires.org/scholarships>. Mentors are available to write recommendation letters for any members applying to college or for scholarships.

14 TEAM NORMS

- Attend nearly all meetings and work sessions and keep a time log
- During the build season, put the team above all other activities except school
- Determine Leadership Positions
- Required Forms (All Forms are found on our website)
- Participate in at least one of the sub-groups, completing assigned tasks, and assisting other groups when requested
- Contribute to the team
- Work positively and supportively
- Respect the team hierarchy
- Respect the adults who are putting their time into our team
- Respect judges, spectators, and members of the other teams at competition
- Don't argue with coaches, referees, or judges – respect their decisions!
- Behave in a way that represents our team
- Wear the team shirt to all events / competitions
- Cheer for all teams at competition
- Contribute to everyone's safety by warning against at-risk behaviors
- Keep work areas neat and free of trash
- Always wear safety glasses and closed-toe shoes when working with machinery or at competition
- Maintain an appropriate academic record (not failing classes and with a GPA above 2.5)

15 STUDENT FORMS

15.1 Student Application Form (*required*)

Part I Overview (*required and attached*)

Part II Student Information (*required and attached*)

Part III Student and Parent Application Contract (*required and attached*)

Part IV Medical Information/Consent Form (*required and attached*)

Part V Permission and Release Form (*required and attached*)

15.2 FIRST Application and Consent and Release Form (*Required each year*)

This is separate from the paper application submitted to the team. Please use a web browser to access www.firstinspires.org. In the upper right corner, click *Log In* for returning members or *Sign Up* for new Members.

New Members

As part of entering personal information for the member, the member will need to enter a parent/guardian email address. It is then the duty of the parent to follow the link emailed to them to sign the student up for the team using the team number **4576**.

All Members

After your parent/guardian submits the team application through the *FIRST* website, the parent/guardian will need to complete the electronic *FIRST* Consent and Release. Members may not attend any *FIRST* sanctioned events until this step is completed.

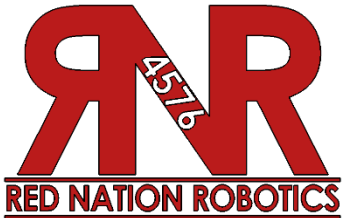
15.3 Travel Forms

All travel forms will be provided the parent meeting held prior to travel.

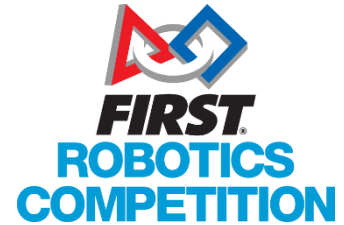
16 THANK YOU

Team 4576 could not exist without the support of members, parents, colleagues, administrators, alumni, and sponsors. We are truly thankful for all of the enthusiastic involvement!

Also, Red Nation Robotics would like to say Thank You to all of the FRC teams for their *Coopertition* in their assistance and contributions in developing this handbook.



Team #4576 – Red Nation Robotics
Making Robots, Building Leaders™
2018-19 Student Application – Part I
OVERVIEW



Congratulations on your decision to participate in the Halls and Powell Community Robotics FIRST Robotics Competition Team at Halls high School. FIRST® (For Inspiration and Recognition of Science and Technology) was founded in 1992 with 28 teams and has since grown to over 3,600 teams in 40 countries. The robotics competition is an international event where high school students and professionals solve an engineering design problem in an intense and interactive learning environment. FIRST redefines winning for these students. Teams are rewarded for excellence in design, demonstrated team spirit, gracious professionalism and maturity, and ability to overcome obstacles. Scoring the most points is a secondary goal. Winning means building partnerships that last. It is not only about building the robot.

The robot is a vehicle for a learning experience that lasts a lifetime. We are exposed to and practice the concept of “Gracious Professionalism”. A key aspect for the success of any team is teamwork. It goes beyond the group of students, because it integrates mentors from the hi-tech industries, parents, and sponsors, all working together.

Our team is like any other competitive extracurricular activity – it requires commitment, time, and energy. Engineers from industry, businessmen, parent volunteers and community members dedicate many hours of their time to making the team a success. We expect nothing less from you.

This is a volunteer based program and runs after school and weekends, all year round. Each year a new competition challenge is unveiled at the beginning of January. The teams then have only six weeks to strategize, design, build, and program a robot to meet the challenge. The participants learn to apply science, math, and technology to the design, construction, programming, and troubleshooting of a 120-pound robot.

Schedule

The current meeting schedule and time commitment includes the following:

During the “Pre---season” (May – December):

Training Sessions, as required (To Be Determined) – **minimum of two days per week, two hours per day**. There may be additional meetings on Saturdays and/or during the week, and for other fund raising or special event days.

During the “Build---season”:

The build season (January---February) is an intense and exciting period when all teams have been informed of the competition objectives and have just 6 weeks to complete their robot design and construction prior to shipment. The frequency of meetings during this period will increase as needed to complete the job on time.

A minimum time commitment of 12 hours per week. Meetings are usually weekdays from 3:30 pm to 7:30 pm and 9:30 am to 3:30pm on Saturday during the six weeks.

“Competition---season”:

Regional Competitions (Wednesday evening - Saturday) - We typically attend two regional events between late February to early April. One of these is in Knoxville.

FIRST World Championship, Houston, Texas (Wednesday – Saturday), is held in late April.

We will compete if we qualify and are able to fund the additional costs.

Membership

Team membership is contingent upon review by the team's selection committee. Membership does not require a technical background. There are many departments on the team including marketing, CAD, mechanical, electrical, media, web design, safety and programming. A "Membership Fee" of \$100 is required of all new members. This is reduced to \$65 dollars for veteran members. This fee includes the cost of the following: Team polo, preseason t-shirt, and competition t-shirt. The cost of other uniform items will be paid for by the member. This money is due immediately upon approval of application unless other arrangements are made.

To be a member of the robotics team, you must commit to the following:

- To attend every meeting (except for excused absences)
- **Abide by 12 hours minimum per week requirement (for build season)**
- To arrive on time and participate to the end of every meeting
- To willingly pursue and work diligently on your assigned task(s)
- To show respect for your mentors and teammates

Our team meets in the Robotics Lab at Halls High School 4321 E Emory Rd, Knoxville, TN 37938. Our team welcomes students from all area high schools, charter schools, and private schools that do not have their own FRC team, as well as high school aged home school students.

The Team Handbook is intended to provide you and your family with information about the program and your responsibilities as a team member. Please read it carefully and share the information with your parents/guardians.

We hope you will join FRC Team #4576 Red Nation Robotics, for a valuable and rewarding experience.

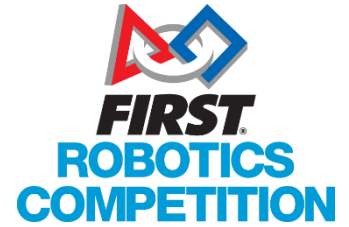
THIS APPLICATIONS SHOULD BE COMPLETED IN ITS ENTIRETY. INCOMPLETE APPLICATIONS WILL NOT RECEIVE CONSIDERATION.

PLEASE RETURN COMPLETED APPLICATIONS WITHIN 48 HOURS OF RECEIPT.

THE TEAM RESERVES THE RIGHT TO SUSPEND AND/OR TERMINATE MEMBERSHIP ON THE BASIS OF ACADEMIC FRAUD, TRUANCY, OR CONDUCT UNBECOMING.



Team #4576 – Red Nation Robotics
Making Robots, Building Leaders™
2018-19 Student Application – Part II
STUDENT INFORMATION



Return Completed Forms to: Mr. Everett – Room 510A

Student's Name: _____ Sex (please circle): Female Male

Address: _____

Student Cell#: _____ Home phone#: _____

Student Email: _____

School: _____ Grade: _____ Date of Birth: _____

Years of Experience: FLL ____ FTC ____ FRC ____ OTHER: (Name) _____ (years) ____

Student T-Shirt size (adult sizes): XS ____ S ____ M ____ L ____ XL ____ 2XL ____ 3XL ____

Parent / Guardian Name (1): _____ **Relationship:** _____

Address (1): _____

Parent (1) Cell#: _____ Home phone (1) #: _____

Parent (1) Email: _____

Parent (1) Occupation / Company: _____

Parent / Guardian Name (2): _____ **Relationship:** _____

Address (2): _____

Parent (2) Cell#: _____ Home phone (2) #: _____

Parent (2) Email: _____

Parent (2) Occupation / Company: _____

Please list other activities you are involved both inside and outside of school:

Activity	Month(s) Involved	Days (M/T/W/R/F/Sa/Su)	Times / Hours

Do you have any experience with (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> AutoCAD | <input type="checkbox"/> Electronics |
| <input type="checkbox"/> SolidWorks | <input type="checkbox"/> Carpentry |
| <input type="checkbox"/> Computer Animation Software | <input type="checkbox"/> Robotics |
| <input type="checkbox"/> C++ Programming | <input type="checkbox"/> Photography / Videography |
| <input type="checkbox"/> Java Programming | <input type="checkbox"/> Budget / Finance |
| <input type="checkbox"/> Other Programming _____ | <input type="checkbox"/> Sensors |
| <input type="checkbox"/> Control Systems | <input type="checkbox"/> Machinery |
| <input type="checkbox"/> Logistics / Management | <input type="checkbox"/> Magnetism |
| <input type="checkbox"/> Welding | <input type="checkbox"/> Pneumatics |
| <input type="checkbox"/> Video Production | <input type="checkbox"/> Fundraising / Sales |
| <input type="checkbox"/> Web Page Design | <input type="checkbox"/> Graphic Design / Photoshop |
| <input type="checkbox"/> Journalism | <input type="checkbox"/> Public Speaking |
| <input type="checkbox"/> Marketing / Public Relations | <input type="checkbox"/> Event Coordination |
| <input type="checkbox"/> Other (please specify): | |
-

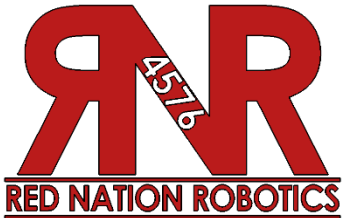
FIRST Volunteer Experience (i.e. FLL Mentor, FLL Event Volunteer & Number of years):

REFERENCES *NEW MEMBERS ONLY*: 1 Teacher & 1 adult non-family member. (Name, email and phone number):

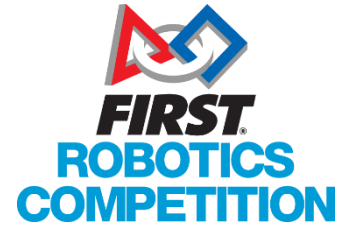
Short Responses (2 – 3 sentences):

What do you expect to gain from this experience?

Do you have any additional comments on things we should know that were not included in the rest of the application?



Team #4576 – Red Nation Robotics
Making Robots, Building Leaders™
2018-19 Student Application – Part III
STUDENT and PARENT APPLICATION CONTRACT



To insure that parents and students understand the responsibility and commitment needed by each FRC member, please take the time to read over and sign this contract with your child.

STUDENT CONTRACT

Please initial each item to which you can honestly agree.

- _____ I realize that FRC is designed for me to have fun while learning STEM, business, teamwork and leadership skills.
- _____ I agree to work my hardest to learn and help my team at every meeting.
- _____ I agree to treat myself, my teammates, all materials, my coach, other teams and their coaches, and any mentors with the utmost respect.
- _____ I realize that no FRC problem has only one solution and that a successful team is one which cooperates by considering EVERYONE'S solutions and ideas.
- _____ I agree that my behavior at all meetings and competitions will be constructive and respectful.
- _____ I agree that each FRC team meeting is valuable, and I will be on time to each meeting. If a conflict arises, I will notify my coach in advance.
- _____ I recognize that electronic devices can be a major distraction and will turn mine off and leave them stowed during team meetings.
- _____ I agree to cooperate on whatever solution the team chooses, even if it is not my first choice.
- _____ I understand that the FRC program recognizes all teams that bring a solution to the tournaments are considered competitors. I agree to show other teams the utmost respect and good sportsmanship.
- _____ I agree that if my behavior is not helpful during a team meeting, the lead mentor and/or coach can ask me to leave. If this happens repeatedly, I may be asked to leave the team.
- _____ **I have read and understand the 2018-19 Team Handbook for Team 4576.**

STUDENT signature: _____ Date: _____

PARENT / GUARDIAN APPLICATION - CONTRACT

Please initial each item to which you can honestly agree.

_____ I understand that in FRC, the students come first. FRC is about students having fun and getting hands-on experience in learning STEM, business, teamwork and leadership skills. Everything the team does starts and ends with that principle.

_____ I understand that the students do the work. This is their opportunity to learn and grow. The students on the team do all of the programming, research, problem solving, and building. Adults can help them find answers, but cannot give them the answers or make the decisions.

_____ I will encourage team members and team supporters to develop and practice a set of FRC Values that reflects FIRST's goal to change culture in a positive way by inspiring others through their team's actions and words.

_____ I agree, in the proper spirit of FRC, not to interfere with the team's solutions. All creations, inventions, ideas, and work must come from the team members.

_____ I agree to make every effort to have my child arrive **and depart** on time for every meeting. If there is a conflict, either my child or I will notify the coach as soon as possible. I understand my child has a commitment to his/her team.

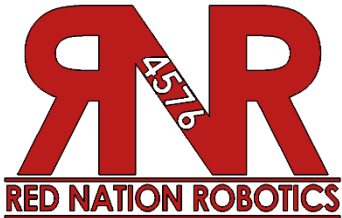
_____ I realize that my child's coach and mentors will be contributing a significant amount of time and effort to provide a rewarding experience for the team. I will play an active role in supporting the team.

_____ I agree to discuss all items listed above with my child.

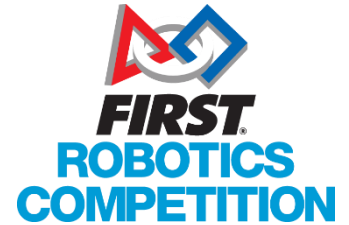
_____ **I have read and understand the 2018-19 Team Handbook for Team 4576.**

Signature of parent/guardian (1): _____ Date _____

Signature of parent/guardian (2): _____ Date _____



Team #4576 – Red Nation Robotics
Making Robots, Building Leaders™
2018-19 Student Application – Part IV
MEDICAL INFORMATION



Student's Name: _____

Family Doctor: _____ Phone: _____

Other doctors/specialists: _____

Medications which my child takes on a regular basis: _____

Allergies (note if life-threatening): _____

My child has a prescription for an "Epi-Pen": _____ Yes _____ No

My child carries an "Epi-Pen" with them at all times: _____ Yes _____ No

Other Medical Conditions/information:

While traveling with the team, I give permission for my child to take:

__ Tylenol __ Ibuprofen __ Benadryl __ Tums and/or Pepto-Bismol Other: _____

Contact for an emergency if parent/guardian cannot be reached:

Emergency Contact (other than the parent / guardian): _____

Emergency Contact Relationship: _____ Cell# _____

Emergency Contact Email: _____

PRINTED NAME - Parent/Guardian (1): _____

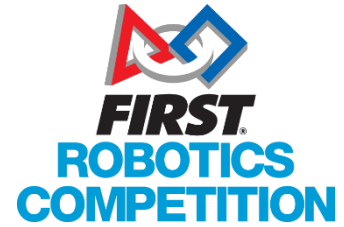
SIGNATURE: _____ DATE: _____

PRINTED NAME - Parent/Guardian (2): _____

SIGNATURE: _____ DATE: _____



Team #4576 – Red Nation Robotics
Making Robots, Building Leaders™
2018-19 Student Application – Part V
PERMISSION and RELEASE FORM



MEMBERSHIP FEE

A Membership Fee is required for all members. Please pay or make arrangements on or before September 14, 2018. All fees should be submitted to Mr. Surovey. If you are having difficulty generating this money, please talk to a mentor BEFORE the deadline.

- **\$100 for rookies (incl. polo)**
- \$50 for veterans (no polo, \$100 fee applies if you need a new polo)

PERMISSION TO PARTICIPATE

I have read Team 4576’s Team Handbook and have completed in its entirety PART I, PART II, PART III and PART IV of the student application.

I give permission for _____ [child’s full name] to participate with the FRC Team 4576 – Red Nation Robotics for the 2018 – 2019 FIRST Robotics Competition (FRC) season and offseason (August, 2018 through July, 2019). My child will adhere to the code of conduct outlined in the application and Team’s Handbook.

I also agree to indemnify and hold harmless Team 4576 – Red Nation Robotics, Knox County Schools, its board members, officers, agents, and employees from and against all claims, losses, costs, damages, expenses, attorneys’ fees and liability that any of them may sustain (a) arising out of my child’s failure to comply with the criteria as outlined in the Team’s Handbook, or (b) arising out of any damage or injury caused by my child.

By signing I further acknowledge completion of PART V of Team 4576’s Student Application.

PRINTED NAME - Parent/Guardian (1) _____

SIGNATURE: _____ DATE: _____

PRINTED NAME - Parent/Guardian (2) _____

SIGNATURE: _____ DATE: _____