

## Introduction

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Welcome to FIRST Robotics Competition (FRC) Team 2833, F.R.E.D! We are excited to have you as part of Team 2883 Robotics. This Handbook contains important policies, goals, and expectations of Team 2883 and its members along with other information you will need.

The success of Team 2883 in FRC is due to the creativity, productivity, teamwork and diligence of our members. Your participation is essential to fulfilling our program's mission and goals. We cannot stress enough the importance of each member's commitment and responsibility in keeping our team running smoothly. We hope that in your work with Team 2883, you will acquire many technical and soft skills that will be used through high school and your future career.

We are proud of the accomplishments of the past F.R.E.D. teams and the foundation that they have built. We are grateful for the opportunities FIRST, Warroad High School and our sponsors give us.

## Mission Statement

The primary reason for the existence of Team 2883 is to foster the development of science, technology, engineering, and math (STEM) knowledge and skills in the students, and promote them pursuing higher education and careers in STEM. Activities in accordance with this are of the highest order. We also work to promote soft skills such as teamwork, responsibility, time management, and accountability, prepare members for leadership roles in our community and in their professional lives. We give students opportunities to experience real-world engineering, be involved in technical and non-technical processes, and work with industry professionals. We aim to be role models in our school and community, using our knowledge and resources to help others succeed, and gain the respect of our fellow citizens.

## Team Eligibility

Any 9<sup>th</sup> -12<sup>th</sup> grade, interested and motivated student is eligible to join the team. We encourage students of all grades to join the team. We also encourage females and minority students who are underrepresented in science and engineering degree programs and occupations. To join Team 2883, a student must regularly attend meetings beginning at the start of the school year. To remain a member in good standing, a student must demonstrate sufficient project hours, event attendance, and dedication to the team. Team members are committed to remain active participants on the team through the end of the season, at the end of April. For further information, contact Mr. Culleton.

## **Team Eligibility During Build Season**

The level of effort on the Team during build season is intense. Sometimes a student's grade may suffer unintentionally. This is inconsistent with our Team's mission. Therefore, students shall work to maintain their grades during build season. Students shall provide coaches with grades of all classes just before the January Kickoff. All class grades must be a "C-" or better. Coaches will monitor student grades weekly through high school eligibility list. If any student's grade has dropped by a letter grade in a class, that student is temporarily suspended from the team, until that grade is restored. Parents are also encouraged to check their son/daughter's grades often during this time.

## **FIRST Robotics Competition**

FIRST, which stands for "For Inspiration and Recognition of Science and Technology," is a nonprofit organization founded by Dean Kamen in 1989. The FIRST Robotics Competition (FRC) combines elements of gracious professionalism (working with your opponents to advance each other) and engineering in order to build a competitive robot. FIRST is a unique partnership between industry and academia, resulting in an environment that fosters a deeper appreciation for science and technology. Students work side by side with professional engineers, computer scientists, technicians and knowledgeable mentors to learn while doing. This gives them real engineering experience.

## **FRC Build Season**

Students work to design and build complex robots to compete in the FIRST Robotics Competition. In the fall, participants will have off-season training on design and manufacturing (please attached tentative schedule), and all machine tools. In January and February, the team works to complete a highly functional robot in a six-week period. Build season begins with a "kickoff" when the team watches a national broadcast of the game unveiling and begins brainstorming robot strategy. During concept development, all team technical members, regardless of their eventual department work, work to develop the overall concept of the robot for that game. After the robot concept is selected, technical team students work within departments to design and build the subsystems of the robot. Some students work on design, some building, and some will do both, depending on each student's skills. Six weeks later, on the "bag and tag" date, the robot must be completely finished. It is then transported to our competitions. During the competition season (March-April), technical members are split into groups for pit crew (robot maintenance), drivers (robot operation) and scouts (strategy).

## Team Leadership

Team 2883 is managed by a leadership team consisting of student leaders, adult mentors, and teachers. The leadership team meets occasionally to make team administrative decisions and to discuss the status of major projects. The leaders work to make decisions by group consensus. Every member of the leadership team puts in many hours of work behind the scenes to ensure that the team operates smoothly, going above and beyond what is required of all other students.

At the beginning of the FRC season, a leadership selection committee consisting of mentors will choose the captains. The selection process is based on each person's previous leadership experience, dedication to the team, particular expertise, and interviews. Students may serve as project managers or department heads as well as serving as a technical member of a department. All technical mentors are, by default, members of the leadership team if they so desire. Non-technical department mentors and leaders will be invited or accepted on a case by case basis.

In the event of disagreement on any matters team management issues, final authority rests with Mr. Culleton.

## Leadership Responsibilities & Authority

The captains are responsible for ensuring that the team runs smoothly. The leadership team understands the importance of communication, action items, and dedication. They attend as many events as possible to set the correct example at the events and to help with anything needed, including but not limited to cleaning the classroom and workrooms, organizing tools, robot maintenance, or general administration.

The mentors have the authority to modify any of the policies outlined in this handbook if deemed necessary.

## Member Obligations

All team members are expected to meet the guidelines setup each year for target level of needed hours.

*If a student fails to meet the target hours, he/she is not an active member of the team and shall not participate in the design/build season, barring extenuating circumstances.*

The target hours in each category may vary for technical versus non-technical members, as well as for inexperienced versus experienced members. Team 2883 makes no excuses for being demanding. Our sponsors contribute large sums to the development of students' technical knowledge. Members should "repay" this debt. Being a part of Team 2883 is more than a 6-week commitment. Participation in other

extracurricular activities such as sports or other clubs may interfere with members' ability to be a productive part of Team 2883. Team 2883 leadership is not responsible for negotiating any student's commitment of hours to other activities. This is a valuable lesson: life is about choices. With that being said the criteria is not so demanding that one cannot get enough hours while playing sports or belonging to clubs.

Students shall meet with Mr. Culleton to develop a personalized plan to meet these obligations if needed.

The "FRC year" (as used below) is counted as from the FRC national championship of one season to the next.

### **Community Outreach/Service Work**

Community service is an important component of Team 2883. The sponsors of Team 2883 give very generously to the community by giving to Team 2883. Your community service is how we return this philanthropy to the community. Every member is required to participate in an approved team outreach event. Members will be informed of outreach opportunities throughout the year. Activities will include mentoring of FIRST Lego League at local elementary schools or middle schools, Robot days, displays, and many other outreach programs.

### **Fundraising**

Every member of Team 2883 is expected to participate in fundraising activities. These activities will be coordinated with our team.

The general target for fundraising is \$220 per student per Regional.

The above monies are excluding World Championships (we will re-plan accordingly).

#### **-Fundraising Events**

- Student initiated programs, build and sell projects. (Mentor Approved)
- Bake sales
- Grant and business sponsors
- Large supper benefit held late spring.
- Other potential programs developed as needed

Students are expected to raise or pay this money, the team will possibly have a fundraising drive to help offset the costs but at this time we do not have one in place. Students do not have to attend regionals to be a part of the team but it does enhance the experience. Students need to pay or raise the funds by January 15<sup>th</sup>, 2017 for initial event.

## Non-Technical Departments

Team 2883 works very much like a small business with a wide array of projects to complete in different fields. The non-technical departments include website, marketing/sponsorship, and spirit. The non-technical departments work in support of the goal of producing a high performing FRC robot. Their work is not an end goal; it is a means to achieve the mission of the team. Work in non-technical departments shall not pull technical students or mentors away from their work (especially during build season). However, technical students, mentors and coaches shall give the non-technical departments the assistance they need to perform their work.

## Safety

Robot building is an activity where students regularly work with sharp objects and dangerous tools, and can be hazardous. All members must cooperate with fellow team members so that they may act safely. Teachers and mentors always have the final word in any situation where safety is at stake.

### Lab Rules for FRC

Students will be asked to leave the lab for unsafe behavior and may not be allowed to return.

1. No student is ever to work without a teacher or mentor present unless it is in programming or other non-equipment group work.
2. Any student intending to use any potentially dangerous tools must be trained about how to safely use the tool by a teacher or adult mentor AND documentation of this training must be completed before the student will be permitted to use that tool.
3. Any student working on building the robot shall have instruction on the proper use of the equipment.
4. When finished using a tool, it must be returned to its designated location in the lab.
5. At the end of every work session, all tools and materials must be put away in proper storage areas.
6. If a student leaves before a work session is over, he must spend AT LEAST 5 minutes cleaning (or have permission to leave from a adult mentor).
7. If a power tool malfunctions or breaks, it must be reported to a mentor immediately.
8. Electrical devices of any kind may NEVER be powered by daisy-chaining cords or power strips.
9. Always wear safety glasses when operating or are near somebody who is operating power equipment. If you are unsure in any given situation, wear safety glasses.
10. Wear hearing protection whenever in the machine shop rooms and the mill, lathe, saws, drills, or other noisy tools and machines are being operated, whether you are the operator or not.
11. No loose hair, long sleeve clothing or jewelry is permitted during the use of power tools.
12. Students must be respectful to everyone (present or not).
13. Horseplay and games are not tolerated.
14. If you are unsure of a safety rule, check with Mr. Culleton/Mr. Landin

## Travel & Competition

### Participation

Travel will be fully funded by Team 2883 funds as long as the student has met his/her required fundraising targets. The leadership team will determine if a student is eligible to attend these travel competitions. Not all students will be eligible, and selections will be made based on work effort, special skills of the individual and funds available. Students must earn their eligibility.

Team members are responsible for their actions during competition. Always remember that an individual's behavior reflects on the team, on our sponsors, on Warroad High School, and on him/herself. Whether you are at the competition facility, at a hotel, or at a restaurant, you should remember that you are an integral part of Team 2883, and your behavior should reflect the respect you have for yourself, for the team, and for others. Those who are not members of Team 2883 but are cheering for or representing the team in any way must adhere to these guidelines as well. In other words, if your relative or friend from school comes to a regional separately from the team, but is representing the team in any way or form, make sure they represent the team positively.

Behavior that is deemed below the standards of Team 2883 may result in disciplinary action. More severe infractions at a competition may result in an immediate trip home at the expense of the team member and his/her parents, and/or suspension or dismissal from the team (at the discretion of Mr. Culleton, in consultation with WHS administration when possible).

### Travel Arrangements

Team 2883 will travel to and from FRC competitions together to the greatest extent possible. All travel will be in WHS approved vehicles. Students will either ride in the WHS bus; or their own parent's vehicle if necessary for some reason and is prearranged with Mr. Culleton. Absolutely no exceptions to this rule will be permitted. Team 2883 will be going to two competitions – Duluth-Northern Lights Regional 3-1-16. Cedar Rapids Regional-3-22-16. If we qualify, the World Championships is held in St. Louis in April.

## Chaperoning at Competitions

WHS faculty will be male and female chaperones as much as possible. If parents are asked to become chaperones for hotel stays, meal excursions, or otherwise, the following guidelines will be followed:

1. The general function of the chaperone is to accompany students during the FRC competition. They will provide physical guidance to a group of students to ensure their safety and well-being, proper behavior, punctual attendance, compliance with Team Handbook and WHS Student Handbook.
2. All breakfast and dinners will be together while on competition trips. Lunches will be with a teacher, mentor or chaperone. Groups going with a mentor or chaperone must check out itinerary with Mr. Culleton or another mentor before leaving the event venue.
3. Names and counts of students are most important for chaperones to keep documented as they are responsible for those children while in their care. Stay together at all times.
4. Chaperones will assist with checking up on students, passing along information about meetings and schedules, and enforcing "lights-out" while at the hotel. Chaperones should consider their primary duty while at the hotel to checkup on students of the same sex as chaperone. The door to the hotel room shall always be open when a chaperone is in the room. Opposite sex chaperones shall knock before entering a student room, and shall never be alone with one student in a room.
5. Chaperones shall act in a manner to treat all students with equal respect and guidance showing no favoritism to their own child.
6. Chaperones shall not drink alcohol, illegal drugs or tobacco products while chaperoning students.
7. No student should ever be allowed to go anywhere outside the hotel or event venue without a chaperone. The chaperone should have at least two students with him/her at all times, not one-on-one.
8. Students are teenagers. They may make questionable decisions. Chaperones should always guide them and act in a manner that would be viewed positively by a "jury of their peers".
9. All student misbehavior shall be brought to the attention of the teachers. Chaperones may act to correct minor behavior violations. If in doubt about the severity of any behavior or violation of a rule, the chaperone shall consult the teachers.
10. Chaperones will be accompanied by teachers to the greatest extent possible. Parents will not chaperone without teacher guidance. Parents will not make any decisions while on trips beyond those specified in this Handbook, without consulting a teacher. Chaperones shall not undermine the authority of the teachers. If the chaperone disagrees with the teacher's directions, it should be discussed politely and privately.
11. Any parent transporting a child other than their own assumes all legal liability for the safety of that child, and risks being banned from travelling with the team, or as a representative of the Team 2883, for the remainder of this trip or at future events.

## Behavior

Team 2883 expects that all students, parents, mentors, and guests behave maturely and professionally at all times. Students whose behavior is deemed to be below the standards of Team 2883 will be disciplined by Mr. Culleton and/or another mentor, or for lesser infractions, appropriately by an adult team mentor or chaperone. It is important that all team members remember that they are representing Team 2883 anytime they are involved in FRC related work or otherwise, and their actions must not reflect poorly upon the team. General guidelines we wish to reinforce beyond those customary at school or any WHS event:

1. Team members should treat members of our team and other teams with kindness and respect at all times.
2. Students or parents shall not make derogatory or demeaning statements about the performance of other students, mentors or coaches on the team to another parent, student, mentor or coach, neither during off-season activities, during build season, nor at a competition.
3. Parents who are not technical mentors shall not engage in giving technical advice during meetings. The purpose of the team is the development of student STEM skills and decision making ability.
4. Violation of Team Handbook or WHS Student Handbook rules may result in suspension from team at the discretion of the Mr. Culleton in consultation with WHS administration if necessary.

**This is a MSHSL sponsored activity all MSHSL rules apply and will be enforced.**

## Written Documents on Behalf of the Team

The Captains must approve any written document on behalf of the team first (if applicable), and finally by Mr. Culleton. This includes any efforts directed at obtaining grants or sponsorship. Written grant or other sponsorship submissions are included and may not be submitted without the explicit approval of a senior Mentor.

## Communication

All students are required to have an active e-mail address that they check often. It is suggested that you monitor your email at least once daily especially during build season and before competitions, and weekly during off-season. Do not expect direct verbal communication from Mr. Culleton on issues that are covered for the whole team in an email. During build season and before competitions it is your responsibility to read your email.

I agree and consent to allow my photographs, name or comments to appear in media related to Team 2883.



## Comments/Complaint Protocol

To be followed by students and parents in the order listed:

1. Talk to the coaches first. This may be initiated by email or telephone, but shall include face to face meeting before escalating the complaint further.
2. Talk to the leadership team in person.
3. Talk to WHS administration.
4. Barring severe violation of WHS policy or law, anyone not following this protocol shall be redirected to the protocol.

## Non-Technical Departments

The following departments support the primary mission of the FRC team. Technical students are not to serve full time in these departments. It is intended that technical members help to recruit students for these non-technical roles.

### Team Website

The primary function of this department is to develop the website.

### Marketing/Sponsorship

The primary function of this department is to help the team meet the funding targets for the operation of the team.

### Spirit

The primary function of this department is to promote team spirit at the school, community and at competitions.

### Parent Support

This is a most important part of support of the students, especially during build season. It is a great time for kids to talk with professional mentors. Your sincere interest in the students of this program will help in developing young people into becoming good citizens. Reinforcement of the goals of FIRST robotics is also important in this process.

Meals are welcome relief from the stress of building, and the laughter and stories are part of building strong friendships and understanding each other at a different level. Parents bring meals, snacks and drinks to meet the needs of the team during off-season and as we work 6-7 days/week, for the 6-week build season. We are all especially grateful for the support of our parents. We will have a sign-up sheet for work nights; it will most likely be in a group of parents.

## **Authority of the Handbook**

The rules and policies set forth in this handbook are binding and must be followed by all Team 2883 members and parents. The handbook may contain Appendices; these documents are binding as well. The team leadership has the authority to modify the handbook at any time; the team will be notified of any modifications.

## Rules and Regulations for the FIRST Robotic Competition

1. Students will adhere to all rules and regulations as stated in the current school year Student Rights and Responsibilities Handbook.
2. I have read the Team 2883 Handbook and agree to comply with the policies outlined within.
3. Students are subject to the reasonable authority of the teacher at all times while away from home as a reasonable replacement for parental supervision.
4. Students must be on time for all scheduled events. Tardiness may result in exclusion from various activities.
5. Students will ride in the approved WHS/ISD 690 vehicle, or their own parent's vehicle only, while at any competition. Students shall not drive, enter or ride in any vehicle other than the above mentioned transportation, unless authorized by the mentors.
6. Students shall abide by the announced curfews each night. Students shall remain in their rooms after the curfews and no guests are allowed in the rooms.
7. During independent activity times or lunches at the event, students shall remain in groups of two with a chaperone or teacher. Students shall never be outside the hotel or event venue without a teacher or chaperone.
8. No guests are allowed in the hotel rooms without permission of the teacher.
9. Students are responsible for loss or damage to hotel property.
10. Students will not disturb other hotel guests.
11. Any student who violates the foregoing terms or any other serious breach of discipline may be expelled from the field trip. The parent or guardian will be called and the student will be returned home by commercial carrier at the expense of the parent or guardian, or the parent shall immediately pickup their child.
12. A travel waiver must be used in all situations. WHS travel policy will be applied in the most situations.

I have read the above rules and regulations and agree to abide by them. I give my son/daughter permission to attend the FIRST Robotic Competition. Return to me, Mr. Culleton cell # is 218-242-3135 Email: [jeremy\\_culleton@warroad.k12.mn.us](mailto:jeremy_culleton@warroad.k12.mn.us) .

Student name (printed): \_\_\_\_\_ Date: \_\_\_\_\_

Student signature \_\_\_\_\_

Parent or Guardian name (printed) \_\_\_\_\_ Date: \_\_\_\_\_

Parent or Guardian signature \_\_\_\_\_

Agreement with Team 2883 Handbook

The Handbook is in force in its entirety, but the following sections are brought to significance and noted by initials below:

1. I understand the requirements regarding maintaining my grades.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

2. I understand the requirements regarding meeting hours for training, community service and fundraising.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

3. I understand the requirements regarding safety as described herein and as referenced in the Team Safety Handbook.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

4. I understand the requirements regarding travel with the Team.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

5. I understand the requirements regarding chaperoning.

Initials \_\_\_\_\_ Parent/Guardian

6. I understand the requirements regarding behavior.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

7. I understand the requirements regarding communications.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

8. I understand the requirements regarding comments/complaint protocol.

Initials \_\_\_\_\_ Student \_\_\_\_\_ Parent/Guardian

I have read and accept the principles and conditions of the Handbook and other documents as referenced.

Student signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent signature: \_\_\_\_\_ Date: \_\_\_\_\_