



Greenville Independent
School District
VEX / VEX IQ
Robotics
Handbook

VEX/VEX IQ Robotics Handbook

Greenville Independent School District

Students and Parents:

Welcome to the 2017 -2018 school year. The Greenville ISD VEX/VEX IQ Robotics Handbook is issued to familiarize students and parents with basic information and practices that govern the VEX/VEX IQ Robotic' Program. Both students and parents should become familiar with the information contained within this handbook.

Please be aware the term "parent" is used to refer to the parent, legal guardian, or any other person who has agreed to assume school-related responsibility for a student.

The VEX/VEX IQ Robotics Handbook is designed to be in harmony with board policy. Because policy adoption and revision may occur throughout the year, changes in board policy or rules that affect the VEX/VEX IQ Robotics Handbook shall prevail. Any board policy or rule changes will be made available to robotics students and parents through alternate communications.

After reading through the entire handbook, should you or your child have any questions about any material presented, please contact the Director of VEX Robotics.

Also, please complete and return to your child's campus the following required forms provided in the forms packet accompanying this handbook:

1. Parent VEX/VEX IQ Robotics Handbook Receipt *Page 16*
2. Student VEX/VEX IQ Robotics Handbook Receipt *Page 17*

For ease of use, the Robotics Handbook is divided into three sections:

1. Preface *Page 2*
2. VEX/VEX IQ Robotics at the Elementary Campuses *Pages 3-4*
3. Katherine G. Johnson Stem Academy
Greenville Sixth Grade Center
Greenville Middle School
Greenville High School
Competition VEX/VEX IQ Robotics *Pages 5-13*

PREFACE

Robotics Values

Gracious Professionalism

Dr. Woodie Flowers, FIRST National Advisor and Pappalardo Professor Emeritus of Mechanical Engineering at Massachusetts Institute of Technology, coined the term “Gracious Professionalism.”

Dr. Flowers’ term describes a work ethic that results in high-quality products, emphasizes the value of others and respects individuals and the community.

Gracious professionals learn and compete with each other and always offer respect and kindness. Knowledge, competition and empathy are comfortably blended.

“Coopertition”

Coopertition (word coined by Woodie Flowers) 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 and teaching teammates. It is learning from mentors and it is managing and being managed. Coopertition produces innovation.

Handbook

Every attempt has been made to ensure that this document is “all inclusive.” In the event that a situation arises that is not covered in the handbook, the decision about that situation will be conveyed to the students after the Director of VEX Robotics and teacher/coach have consulted with the necessary GISD personnel.

VEX/VEX IQ ROBOTICS AT THE ELEMENTARY CAMPUSES

Applies to the following elementary campuses: Bowie, Carver, Crockett, Lamar and Travis. For the Katherine G. Johnson STEM Academy, please see pages 5 – 13.

Goals and Objectives:

The Robotics Program at the Elementary Campuses is designed to expose Greenville ISD students to robotic and technology fundamentals through the design and production of a robot. Incorporating Project Based Learning into the after school enrichment classroom, students will create and manufacture a robot that will then be entered into a district-wide, in-house competition (Robotics Showcase). Promoting collegiality and teamwork, students work together and communicate freely during the building process.

Application and Selection Process

An informational meeting for prospective robotics students and their parents will be held in the fall as needed. An application will be disseminated to all interested students and should be completed in its entirety and submitted to the student's robotics teacher/coach by the date published and communicated. The scheduled tryout date will be included in the application.

The tryout process may include, but is not limited to, a group-building project and an interview with a Selection Committee/Teacher/Coach. The number of students accepted into the program is limited.

The application and selection process is held once annually in the fall. If a robotics student transfers to another GISD elementary campus during the school year, their continuation in the robotics program at the new school is based upon space availability. Students are required to re-apply and tryout for the sixth grade competition robotics team, the Cyborgs, when advancing from the fifth to sixth grade.

Questions regarding the application and tryout process may be directed to the Director of VEX Robotics. Information concerning students and the selection of students is confidential under the Family Educational Rights and Privacy Act (FERPA) and parents are only privy to information regarding their own child/children.

Class Requirement and Commitment

Any student participating in the Elementary Robotics Program must attend after school robotics build sessions on their campus. The days and times will vary by campus and be determined by campus/district administration.

Once a student is selected for participation in the program, they are expected to remain in the program for the entire school year.

Grades

Students enrolled in the Elementary Robotics Program must maintain a grade of 70 or higher in all classes in order to participate in the robotics program activities. Grades will be evaluated at each progress report and grading period. Students not maintaining a 70 average may not participate in any robotics activities until all failing grade(s) are raised to passing.

End of Year Competition

A district-wide competition (Robotics Showcase) will be held one Saturday at the end of the year for all Elementary robotics classes and the Elective Robotics Classes at the Sixth Grade Center. Students will be organized into teams by their Teacher/Coach and the number of members per robot may vary dependent upon class enrollment.



KATHERINE G. JOHNSON STEM ACADEMY, SIXTH GRADE CENTER, GREENVILLE MIDDLE SCHOOL AND GREENVILLE HIGH SCHOOL COMPETITION VEX/VEX IQ ROBOTICS

The following guidelines apply only to the VEX Robotics Program. They do not apply to the Robowranglers (F.I.R.S.T.) Robotics. For more information, contact the Director of F.I.R.S.T. Robotics Grades 9-12.

Goals and Objectives:

The Competitive Robotics Program is designed to expose Greenville ISD Katherine G. Johnson STEM Academy, Greenville Sixth Grade Center, Greenville Middle School and Greenville High School Students to robotic and technology fundamentals through the design and production of a robot. Incorporating Project Based Learning instructional practices into the classroom, students will create and manufacture a robot that will then be entered into Local/State/National/World competitions. Promoting collegiality and teamwork, students work together and communicate freely during the building process.

Program References/Team Names/Robotics Platforms

The following programs use the VEX IQ Robotics Platform

1. The term “Rock-A-Bots” will refer to the Katherine G. STEM Academy.
2. The term “Cyborgs” will refer to the Greenville Sixth Grade Center
3. The term “Protobots” will refer to the Greenville Middle School

The following programs use the VEX Robotics Platform.

1. The term “Gigabots” will refer to the Greenville Middle School Competition Robotics Team
2. The term “Iron Cowboys” will refer to the Greenville High School Competition VEX Robotics Team

Application and Selection Process

An application will be disseminated to all interested students and should be completed in its entirety and submitted to the student’s robotics teacher/coach by the date published and communicated. The scheduled tryout day(s) is also publicized in the application.

The number of students accepted into the program is limited by resources and space.

The application and selection process for current Cyborgs, Protobots , Gigabots and Iron Cowboys is held once annually in the spring, while this process for the Rock-A-Bots is held once annually in the fall.

When a student promotes a grade and changes campuses, they are not guaranteed a place in the robotics program in the new grade. Students are required to re-apply and tryout each year this situation arises. All students are given an equal opportunity to become members of the robotics program. Tryouts are performance based and spots in the program are not guaranteed.

When a student is on a competition team at the end of the school year, promotes a grade and does not change campus, these students will not need to re-apply.

As space and resources become available a tryout may be held for new district enrollees. The tryout and selection process will be held only for the team(s) that have openings.

Once a student is accepted into the program, a meeting will be held where a more in-depth explanation of the program is discussed and the VEX/VEX IQ Robotics Handbook is provided to the parents and students. For formal acceptance into the competition program, the parent(s) and student must sign and return their handbook receipt pages to the robotics coach by the due date. The robotics coach will assume that the student does not wish to participate in the program if the receipt pages are not signed and returned by the due date and their place will be given to another student.

Questions regarding the application and tryout process may be directed to the of Director VEX Robotics. Information concerning students and the selection of students is confidential under the Family Educational Rights and Privacy Act (FERPA) and parents are only privy to information regarding their own child/children.

Student Expectations

Grades

Students enrolled in the robotics program must maintain a grade of 70 or higher in all classes in order to participate in the robotics program activities. Grades will be evaluated at each progress report and grading period. Students not maintaining a 70 average may not participate in any outside of class activities until the next grading period. If a student's grade falls below 70 in two consecutive grading periods within a school year, the student will be removed from the team.

Attendance

Attendance and punctuality at all robotics meetings, activities and tournament days is mandatory. A calendar of events will be provided outlining mandatory meetings and attendance requirements for the entire year. The Robotics Teacher/Coach must be informed if a meeting will be missed and excusal of absences will be at the full discretion of the Teacher/Coach.

Fundraising

Fundraising requiring mandatory participation of all robotics students may occur throughout the year. The program does not have a "buy out" package, meaning the student cannot just pay their way and be

a part of the team. Should fundraising be required, each member will be held to a fundraising participation standard and if this is not met, the student will not be allowed to travel to competition.

Respect

Robotics members are expected to show respect toward each other and all adults including the Teacher/Coach at all times. Disrespect and disruptive behavior will warrant immediate removal from the team. Robotics program members must adhere to a strict code of conduct.

Code of Conduct

If a team member is placed in In-School Suspension (ISS), they will not be permitted to participate in any robotics activities during their ISS placement. If it is a major infraction, they will also be given an additional consequence to be determined by the Teacher/Coach. If they are placed in the Greenville Alternative Educational Program (GAEP), they will be dismissed from the team. Upon returning to their school, reinstatement to the program will be determined by the Teacher/Coach.

Members are expected to conduct themselves with professionalism and humility at all times, especially during competitions. Misconduct may result in suspension or removal from the robotics program.

Robotics Program Expectations

All members of the SGC, GMS and GHS Robotics program will be required to take the robotics class offered during the normal school day. The Katherine G. Johnson STEM Academy robotics class will only meet after school. In this class, students will experience activities such as: fundraising, team building and other projects involving the community. If you are unable to attend the robotics class, you must see the Teacher/Coach immediately. Only special cases will be granted an exception.

Robotics Summer Camp

A one-week robotics summer camp will be conducted by GISD for the Rock-A-Bots, Cyborgs and Protobots. While a two-week, Robotics Summer Camp will be conducted for the Gigabots and Iron Cowboys. Attendance is required unless a wavier is granted by the teacher/coach. The week and daily times for the camp are fluid and subject to change each summer. A fee is charged for the camp. If the camp fee will impose a financial hardship on a student's family, please see the Director of VEX Robotics. Fees are subject to change.

Requirements for Traveling

Certain provisions and expectations will need to be met for a student to travel with the robotics team. The following allows a student to travel with a competition team:

1. Students are expected to follow the district and robotics code of conduct at all times. This includes but is not limited to class-time, after school sessions and competitions.

2. Students are expected to participate in the building and iteration of their team's robot. The coach will inform the student and parent/guardian if the expectation is not met. Lack of participation will result in the student not being allowed to travel with the team. A student can be allowed to attend future tournaments if participation is corrected.

3. Students are expected to maintain grades, standardized test scores, school and robotic event attendance and participation in fundraising and community events.

Students are expected to attend all tournaments. Unexcused absences will result in the student not traveling to state/national/world competitions in the event the student's team qualifies for the state/national/world competitions during the unexcused absence.

There will be a significant after school time commitment for students participating on a competition robotics team. Participation on the competition team and travel with the team is a privilege, not a right. Misconduct on a trip may result in the student being dismissed immediately with return travel at student's expense.

Communication with Students

The communication from the Director of VEX Robotics and the Robotics Teacher/Coach is transmitted via e-mail, Blackboard Messenger and Remind. Students must check these applications regularly to avoid missing important communication. Neglecting to check any of these applications could result in the oversight of important information. Should this be the case, the student assumes responsibility for the oversight and understands that it may affect their position on the team. If the student does not have access to any of these applications at home, they should notify the Teacher/Coach immediately upon acceptance into the program so that other arrangements can be made.

Parent Information

Fundraising

Parents are asked to assist in all fundraising efforts, which is an integral part of the robotics program and team building experience. Sufficient fundraising allows students to travel to competitions without excessive expenses. Parents may be required to pay a travel fee if fundraising goals are not met. Fundraisers will be organized by the Director of VEX Robotics. Any parent wishing to contact an outside business or community member on behalf of robotics must first consult with the Director of VEX Robotics.

Competition Decisions

Parents and spectators are welcome and encouraged to come to competitions with the team. Parents and spectators must remain mindful at all times that the Director of VEX Robotics and Teachers/Coaches make decisions for the team based upon expertise and experience. Questions about competition decisions may be directed to the Director of VEX Robotics or the Teacher/Coach following the competition at a scheduled meeting.

Communication with Parents

The majority of communication from the Director of VEX Robotics and Robotics Teacher/Coach is transmitted via Blackboard Messenger, Remind and e-mail. If a parent does not have access to any of these forms of communication, let the Teacher/Coach know immediately so that alternate communication arrangements can be made.

Official communication is only distributed by the Director of VEX Robotics or the Robotics Teacher/Coach unless parents are notified that official communication will be disseminated via another individual in a special circumstance. That communication should only be considered “official” for that specific circumstance.

GISD employees are the only parties authorized to contact and communicate with Tournament, VEX or Robotics Education Competition Foundation (RECF) officials. Parents are not considered representatives of the competitive teams and it is the Director of VEX Robotics responsibility to ensure that proper protocol is maintained. If a parent violates the above procedure, their action(s) can be considered “interference” which may result in the robotics team being penalized at a tournament. See Tournament Rule (T01) of the VEX Robotics Game Manual located online at <http://www.roboticseducation.org/event-partners/event-partner-resources-documents/>.

Parents should communicate directly with the Teacher/Coach or Director of VEX Robotics concerning any competition concerns so adherence to proper protocol is maintained.

Conduct on Competition Trips

Parental accompaniment on any robotics competition trip is welcomed. Any trip is considered an extension of a GISD campus when students are present. This includes, but is not limited to, the school bus, restaurant, hotel and competition venue. When students are present, parents should conduct themselves as if they are on a GISD campus in all regards, including the avoidance of tobacco and alcohol use.

Expectation

The Competitive Robotics Program encourages parent participation through leading or assisting fundraising efforts, volunteering to mentor a competition team, volunteering to help a competition team during build season and/or by being vocal in support of the competition teams at any tournament. The mentors and volunteers agree to follow the guidelines established for their “Code of Conduct” by GISD Guidelines, VEX Game Rules and the Parent/Student Robotics Handbook. Parent volunteers are required to allow a Criminal Background Check as required by Greenville ISD.

Questions and/or Concerns

If a parent has questions and/or concerns about the program, GISD employees should be contacted in the following order:

1. Teacher/Coach
2. School Principal
3. Director of VEX Robotics

Build Season

Build Season for Competitive Robotics is determined by the campus administration. The start date, length and number of build season(s) is determined by programmatic needs. Build season continues as needed throughout the competition season.

Time Commitment

Building a successful competition robot requires a significant time commitment. Every attempt will be made to reduce the amount of after school hours. As the first competition approaches, after school build sessions will probably be necessary and required. Two to three night meetings are common at the beginning of build season. As the first competition date approaches, additional time will be necessary and Saturday meetings are common.

Every attempt will be made to begin meetings after parents and mentors have completed their workday. On some occasions, meetings will begin immediately after school. Each session will last only as long as needed. Parents will be notified when build sessions are necessary and beginning times will be posted as soon as feasible.

The district is aware that students have other outside activity commitments and every effort will be made to accommodate the students' schedule, but please be mindful that there will be a hard deadline for completion of a successful robot. Therefore, students will be required to attend a minimum number of sessions per week.

Robot Completion

If a robot is not in condition to "successfully" compete in the first competition at the completion of build season, the robot will not be allowed to enter that tournament. "Condition to Compete" will be determined by the Teacher/Coach. This rule applies to any tournament scheduled during the year. If the robot is successfully completed later, then the robot will be allowed to compete at subsequent tournaments.

Robot Ownership

All VEX and VEX IQ robots are the property of Greenville ISD. No parent or mentor may transport a VEX or VEX IQ robot from the lab unless explicit, written permission is granted by the Director of VEX Robotics.

Competition Team

Definition

A Competition Team is defined in robotics to be, “a robot with student members.” The number of student members per robot is determined by the Teacher/Coach. This number may vary each school year. In the Student Expectations Section, the term “team” refers to all students in the robotics program, which is different in meaning from the term “Competition Team.”

Competition Team Numbers

Competition Teams have a number and letter assigned them. This number and letter will be displayed on the robot.

Qualifying for State, National or World Competitions

Individual Competition Teams may qualify for state/national/world competitions. The members of the Competition Team present the entire day their robot qualifies are the members who qualify to attend a state/national/world competition. Exceptions will be granted in only extreme circumstances.

Not all team members in the competition robotics program will attend state/national/world competitions. Qualification criteria may change annually.

A competition team(s) qualifies for a state/national/world tournament by meeting certain competition and judging standards set forth by the governing body that sanctions a particular tournament. Not all tournaments are sanctioned and GISD does not determine the qualifying criteria. If more than one competition team qualifies out of one sanctioned tournament, they all qualify equally at the same time. The calendar dates of the sanctioned tournaments determine the order in which competition teams qualify. Example: If Competition Team One qualifies in a sanctioned tournament in December and Competition Team Two qualifies in a sanctioned tournament the following February, then Competition Team One qualifies before Competition Team Two. If Competition Team One and Competition Team Two qualify in a sanctioned tournament on the same date in March, they both qualify equally regardless of the method in which these competition teams earned qualification status.

If a competition team(s) qualifies for a state/national/world tournament and there are spots available at the time of qualifying, that qualifying competition team(s) will be registered to attend the tournament providing funding criteria is met.

If there are **no** spots available at the time of qualifying, those qualifying competition team(s) will be registered in the order in which they qualified provided spots become available at a later date and funding criteria is met.

In the event that multiple teams qualified for state/national/world tournaments at the same tournament and an invitation to attend the state/national/world tournament has been received for an additional spot(s), GISD will hold an internal tryout to determine the order in which additional spot(s) will be filled. One internal tryout will be held for each state/national/world tournament and additional spot(s) will be filled from the results of the initial tryout.

If the governing body will not allow GISD to hold tryouts to fill additional state/national/world spots for teams qualifying, then the spots will be filled by teams in the order in which the invitation is received.

Funding for Competition Teams that are State, National or World Qualifiers

The district will fund the competition expenses for each qualifying Competition Team member as long as funds are available. In the event that district funds are not available or do not cover all competition expenses, students may be charged a travel fee to attend these events. The district will not normally fund entertainment expenses.

There are certain expenses that are not refundable after the purchase has been made (ex. Airline tickets) when attending a state, national or world competition. If the student cannot attend a competition after obtaining verbal or written permission from a parent for the district to make these purchases, the parent will be responsible for repaying the district for these expenses.

Tournament Determination for Competition Teams

GISD will determine the number and type of tournaments all Competition Robotics Teams enter. This decision is final. The number of tournaments that the Competition Robotics Teams attend from each campus may not be the same. Decisions are based on available resources and funding.

Total Number of Robots That May Enter a Competition

GISD will make every attempt to schedule competitions that allows the opportunity for all completed robots to attend. A robot may not be allowed to attend for the following reasons:

- (1) A robot that is not complete will not be registered to attend
- (2) Tournaments may restrict the number of entries from a single entity
- (3) Tournaments have a cap on the total number of participants and a limited number of spots are available when the decision to attend is made

In the case where the number of spots available is limited, an in-house tryout will be held to determine which robots are selected to attend. Tryout requirements may change from tournament to tournament.

A competition team that has previously qualified to attend a state/national/World tournament will be allowed to compete in any in-house tryout and be allowed to go to any local tournament in which they qualify.

Departure to Competitions

Scheduled departures will leave on time. If a circumstance arises that causes a student to be tardy or absent from a competition, contact the coach directly prior to the published departure time. The message should include a brief explanation of the circumstance leading to the tardy/absence. If the coach does not receive a satisfactory explanation, they will assume the student decided not to attend the competition that day.

Day Travel to Competitions

Local Competitions are normally held on Saturdays. Students will travel by GISD transportation to these events. Students are required to ride the GISD transportation to the event, but students may ride home with their parents. In order for a student to be granted permission to ride home with a parent, the proper GISD guideline must be followed. No exceptions will be granted. Meal allowances will be provided according to GISD policy/procedure.

Overnight Travel to Competitions

There may be times when the competition teams will compete in cities where it is not feasible to make the trip in one day. In those cases the competition teams will stay overnight in a hotel. Rooms are assigned based on a maximum occupancy of four students per room. The Teacher/Coach is responsible for making room assignments. A parent may request a rooming arrangement, but it may not be honored. Parents must make their own hotel reservations and make any special requests to the hotel directly. The Teacher/Coach will approve all meal arrangements using allowances in accordance with GISD Procedure. Please remember that these trips are competition trips and are different from "Field Trips." The Teacher/Coach will make an effort to choose meals that will accommodate most students eating habits. Any extracurricular activity will be at the parents' expense if payment (Ex. Admission fees) is necessary. Extracurricular activities are not guaranteed on overnight trips. Students are required to ride GISD transportation to the event, but students may ride home with their parents. In order for a student to be granted permission to ride home with a parent, the proper GISD guideline must be followed. No exceptions will be granted. Meal allowances will be provided according to GISD policy/procedure.

STATEMENT OF NONDISCRIMINATION

In its efforts to promote nondiscrimination, Greenville I.S.D. does not discriminate on the basis of race, religion, color, national origin, gender, sex, or disability in providing education services, activities, and programs, including vocational programs, in accordance with Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Educational Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended.

The following district staff members have been designated to coordinate compliance with these legal requirements:

- *Title IX Coordinator, for concerns regarding discrimination on the basis of gender: Wes Underwood, 4004 Moulton Street, Greenville, Texas 75401, 903-457-2500*
- *ADA/Section 504 Coordinator, for concerns regarding discrimination on the basis of disability: Wes Underwood, 4004 Moulton Street, Greenville, Texas 75401, 903-457-2500*
- *All other concerns regarding discrimination: Wes Underwood, 4004 Moulton Street, Greenville, Texas 75401, 903-457-2500*

DECLARACIÓN SIN DISCRIMINACIÓN

En sus esfuerzos para no promover la discriminación, Greenville ISD no discrimina por razones de raza, religión, color, origen nacional, género, sexo, o discapacidad en la prestación de servicios educativos, actividades y programas, incluyendo programas vocacionales, de acuerdo con el Título VI de la Ley de Derechos Civiles de 1964, según enmienda, Título IX de las Enmiendas de Educación de 1972 y la Sección 504 de la Ley de Rehabilitación de 1973, según enmendada.

Los siguientes miembros del personal del distrito han sido designados para coordinar el cumplimiento de estos requisitos legales:

- *Coordinador del Título IX, para preguntas relacionadas a la discriminación por motivos de género: Wes Underwood, 4004 Moulton Street, Greenville, Texas 75401, 903-457-2500*
- *ADA / Coordinador de la Sección 504, para preguntas relacionadas a la discriminación por motivos de discapacidad: Wes Underwood , 4004 Moulton Street, Greenville, Texas 75401, 903-457-2500*
- *Para cualquier otra pregunta relacionada a la discriminación: Dana Myers, 4004 Moulton Street, Greenville, Texas 75401, 903-457-2500*



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Parent VEX/VEX IQ Robotics Handbook Receipt

Name: _____

School: _____

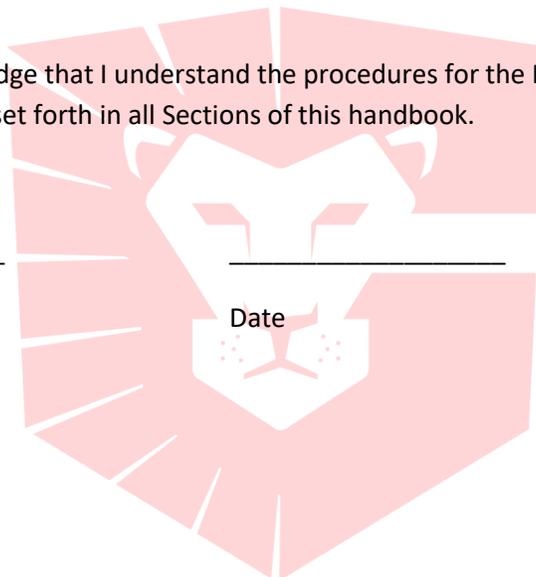
I hereby acknowledge a receipt of a copy of the Greenville ISD VEX/VEX IQ Robotics Handbook. I agree to read the handbook and that I understand and will abide by the procedures defined or referenced in this document.

The information in this handbook is subject to change. I understand that changes in district procedures may supersede, modify or render obsolete the information summarized in this book. As the district provides updated robotics procedure information, I accept responsibility for reading and abiding by the changes.

By signing below, I acknowledge that I understand the procedures for the Robotics Program/Team. I also agree to abide by the terms set forth in all Sections of this handbook.

Parent Signature

Date



Student VEX/VEX IQ Robotics Handbook Receipt

Name: _____

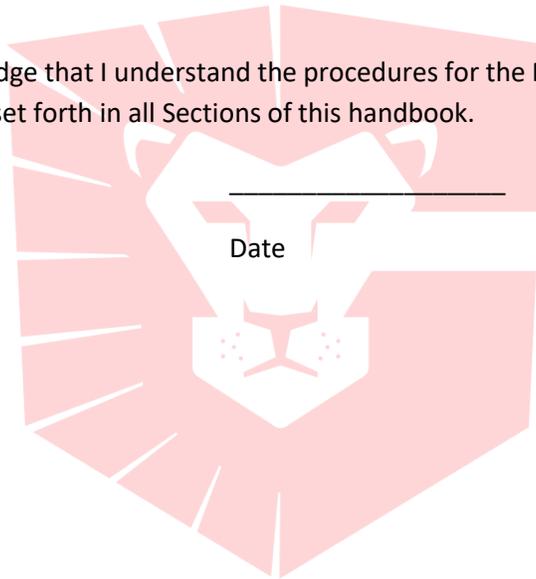
School: _____

I hereby acknowledge a receipt of a copy of the Greenville ISD VEX/VEX IQ Robotics Handbook. I agree to read the handbook and that I understand and will abide by the procedures defined or referenced in this document.

The information in this handbook is subject to change. I understand that changes in district procedures may supersede, modify or render obsolete the information summarized in this book. As the district provides updated robotics procedure information, I accept responsibility for reading and abiding by the changes.

By signing below, I acknowledge that I understand the procedures for the Robotics Program/Team. I also agree to abide by the terms set forth in all Sections of this handbook.

Student Signature



Date