

Congratulations on becoming a member of the Westview FIRST Robotics Team or the School of Science and Technology (SST) FIRST Robotics Team! FIRST (For the Inspiration and Recognition of Science and Technology) was founded by Dean Kamen, President and owner of DEKA Research and Development Corporation. The robotics competition is a multinational event where high school students and professionals solve an engineering design problem in an intense and interactive learning environment. FIRST coins it as "Varsity sport of the mind". As a team member you have responsibilities of commitment to your team. In return you will have an opportunity for amazing experiences not available outside the arena of FIRST. "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." -usfirst.org

Westview Robotics and SST Robotics is not only about building a robot. The robot is only a vehicle for a learning experience that lasts a lifetime. 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. This is a volunteer based program and runs after school and weekends, all year round.

Students are exposed to and practice the concept of "Gracious Professionalism" (GP). "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." – www.usfirst.org

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. The integration of all these applications is handled much like a business in making sure plans are set and deadlines met. In addition to all the applied sciences many opportunities are available to students more interested in the "business side" of things.

Though we meet at Westview High School, our teams welcome students from other area schools. This gives students in the Beaverton School District the opportunity to participate in a program that isn't offered at their school. This 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. If you cannot find the answer to your question in this handbook, or if you have questions about anything related to the teams, please ask a Team Captain, or talk to us.

We hope that time spent working and learning with the teams will be a valuable and rewarding experience.

Go 1510 and 2898!!

Bob Hendel

Ed Burdick

Steve Williams

2012 Season Team Coaches

Westview and SST Robotics Teams Constitution

Preamble

We the members of the Westview FIRST Robotics Team and the School of Science and Technology (SST) FIRST Robotics Team establish this Constitution to govern the matters within our organization as of August 22, 2011.

Article 1 - Name

The names of these organizations shall be, The Westview FIRST Robotics Team, The Wildcats, Team 1510; The SST FIRST Robotics Team, The Flying Hedgehogs, Team 2898; as part of The Beaverton Public Schools Robotics Teams under the organization FIRST.

Article 2 - Purpose

The purpose of these organizations shall be for the inspiration and recognition of science and technology; to engage students in an atmosphere promoting hands-on learning and STEM (Science, Technology, Engineering, Math).

Article 3 - Membership

The requirement for joining these organizations shall be a high school age student (grades 9-12) who is enrolled in an area public school, private school, or is home-schooled; 100 hours of time commitment; a \$300 team fee which is non-refundable. A limited number of scholarships are available, for those who communicate a need with the Coach. All scholarships are kept confidential.

The responsibilities of a member of these organizations shall be compliance with the rules outlined in Article 7; understanding and cooperating with the material covered under Article 8. This includes but is not limited to a current email address which is checked daily for updates.

Article 4 - Officers

The positions of the Officers of these organizations shall be a Team Captain; a Team Consultant; a Mechanical Team Leader, an Electrical Team Leader, a Programming Team Leader, a Business Team Leader; a Mechanical Project Leader; an Electrical Project Leader; a Programming Project Leader; a Business Project Leader; and a Safety Captain.

The roles of the Officers of these organizations shall be filled according to a majority vote by the previous year's leaders, and ratified by the Board. Recommendations for replacement of a position shall be made by the person leaving that position.

General Responsibilities for all Officers shall include enforcing the rules set forth in Article 7. If an Officer does not comply with the rules set forth in Article 7, the rules will be enforced by a higher ranking Officer, or by the Coach, and the Officer will be dealt with accordingly.

Section 1 - Captains

The responsibilities of the Team Captains shall be overseeing project development and integration between the Mechanical, Electrical, and Programming leaders; deadline management for individual projects and the robot as a whole; training individuals, either directly or through proxy, on skills necessary for the completion of their assigned tasks. Responsibilities also include coordinating with the Business Project leader on deadlines/recruiting/grants/scouting/etc.

Section 2 - Consultants

It is required for the Consultants to have a broad technical knowledge for all of the aspects of the robots.

The responsibilities of the Consultants shall be to advise the Captains in matters that concern the robot. The Consultants also make sure that all students working on a project have enough knowledge and technical experience for said project. Other responsibilities include answering technical questions that cannot be answered by the team leaders.

The Consultants shall advise the Captains in making decisions regarding the team and the robot. If there is a disagreement with the decision that the Captains have made then the Consultants can overrule the decision of the Captains if BOTH of the Consultants agree to overrule it. For administrative purposes, the Consultants are considered Team Captains.

Section 3 - Team Leaders

The responsibilities of the Mechanical Team Leaders of these organizations shall be assigning duties to the Mechanical Project Leaders and various individuals; fielding questions and approaching the Team Captains for any necessary decisions; the responsibilities of the Pit Crew Head Mechanics as outlined in Article 8, unless they wish to choose a suitable replacement.

The responsibilities of the Electrical Team Leaders of these organizations shall be the design and production of the electrical boards; the training of interested students; assigning duties to the Electrical Project Leaders; and the responsibilities of the Pit Crew Electricians as outlined in Article 8, unless they wish to choose a suitable replacement.

The responsibilities of the Programming Team Leaders of these organizations shall be the facilitation of the development of the Robot Programs along with the Programming Project Leaders; the training of interested students; and the responsibilities of the Pit Crew Programmers as outlined in Article 8, unless they wish to choose a suitable replacement.

The responsibilities of the Business Team Leaders shall be managing all non-engineering aspects: Scouting, Marketing, PR, Fundraising, Grant Writing, the Website, Recruiting, Award Writing, and Animation.

Section 4 - Project Leaders

The responsibilities of the Project Managers shall be overseeing and completing assigned tasks; directing any and all members assigned to their project; and providing detailed information on the status of their project to their leader. There will be one Project Leader per Team Leader.

The responsibilities of the Mechanical Project Leaders shall be to work on projects assigned by their appropriate Mechanical Team Leader, and to make sure all other Mechanical Projects are completed successfully, on time, correctly, and assisting any other team member.

The responsibilities of the Electrical Project Leader shall be to work on projects assigned by their appropriate Electrical Team Leader, and to make sure all other Electrical Projects are completed successfully, on time, correctly, and assisting any other team member.

The responsibilities of the Programming Project Leaders shall be to assist their appropriate Programming Team Leader in any and all programming responsibilities.

The responsibilities of the Business Project Leader shall be to assist their appropriate Business Team Leader in any and all Business responsibilities.

Section 5 - Extraneous Positions

The responsibilities of Safety Captains shall be the education and enforcement of the safety rules as outlined in the Metalworking Safety Test; the facilitation of the Safety Test process for team members, including proctoring, receiving, grading, and correcting; and the responsibilities of the Safety Captain as outlined in Article 8.

There will be two Scouting Leaders according to Article 8, Section 5.

There will be two six (6) person Pit Crew according to Article 8, Section 7.

There will be two four (4) person Drive Team according to Article 8, Section 8.

Article 5 – Coaches and Mentors:

The responsibilities of the Coach shall be to mentor the student captains and leaders as they manage the team. He/She shall be present at all team meetings, and also for all time spent designing and building during the “build season”. He/She shall be a moderator for all discussions the team holds as well as holding the power to approve/disprove of any or all team actions and decisions.

The Coach shall be accountable to the board as well as the host school for all financial decisions and purchases made by the team. He/She is the liaison between the team and the school, and shall be responsible for communication as well as building use. The Coach shall oversee all robot construction and make sure the team is not overextending itself either in the design/build of the robot or the financial outlay.

The Coach shall be responsible for meeting deadlines regarding registration and payment to FIRST for attending all competitions. He/She is also responsible to check updates frequently from the FIRST Corporation regarding any changes made in rules or guidelines. He/She

shall be the keeper of the team calendar to be sure all deadlines are met.

The responsibilities of the Mentors of this organization shall be to provide experience driven learning to the members of this organization. They will ask questions to stimulate thought processes as well as offer suggestions for ways to complete tasks. They shall remain "hands-off" in all aspects of construction of the robot unless the Captains ask for their assistance.

Mentors will give updates and bring any concerns they have regarding the team and progress with the robot and team relations; to the coach. They will oversee use of the power tools in the shop, to ensure proper handling and safety.

Article 6 – The Advisory Board

The positions of the Board of this organization shall be the Coach, the Head Mentor; Parent Leaders: Team Administrator, Travel Coordinator, Fundraising Chair, PR/Advertising/Team Spirit Coordinator, Volunteer Coordinator; Student leaders: Team Captains and Team Consultants. All parents are encouraged and welcome to be a part of the advisory board. The board shall meet together at least three times within a year, and may communicate via email or telephone to make decisions.

Section 1 - Coach/Mentor Participants

The Coach (or co-coach team) shall hold the chairperson's role on the advisory board. They shall not make any decisions for the team which will impact the budget significantly or team travel arrangements without a vote from the entire advisory board.

Mentor participants are welcome to give any suggestions and make motions for vote as any other board member.

Section 2 - Parent Participants

All parents and adults in volunteer positions must pass a BSD background check. The application for this can be found on the BSD website. Please confirm with the coach when you have completed the check for the safety of you, your child and the teams. Please check the BSD website and do a search for volunteer background check, or enter this address into your browser: <https://www.beavton.k12.or.us/volunteer/>

The responsibilities of the Travel Coordinator shall be to plan transportation for the teams to competitions, and to all locations the teams visits during the events; to make reservations at hotels at which the teams stay; to make reservations at all restaurants at which the teams eat; to help with room assignments; to verify which students and adults are attending.

The responsibilities of the Fundraising Chair shall be to coordinate all fundraising events. The Fundraising Chair should work with student members who will organize the students in the fundraising events.

The responsibilities of the PR/Advertising designer includes putting together the Chairman's Award packets for submission to FIRST, keeping close relations with sponsors, helping to prepare end of season reports.

The responsibilities of the Volunteer Coordinator shall be to ensure that all necessary volunteer positions have been filled, and that all wishing to volunteer have the opportunity to do so.

The responsibilities of the Meal Coordinator shall be to schedule meals brought in by parents during the build season. He/she will provide a calendar with slots for sign up times for parents. If additional meals are needed beyond build season the meal coordinator shall recruit parents to help fill those needs.

The responsibilities of the Team Administrator shall be to make sure all participation forms are printed and available to team members and their parents. Files containing health information, contact information and participation/permission and transportation forms shall kept for all team members in a HIPPA compliant locked file box. He/she shall schedule, build agendas and direct meetings. Additional responsibilities include communication with team members and their parents, and developing the team season calendar.

Section 3 - Student Captains

The responsibilities of the Student Captains as outlined in Article 4, Section 1.

Section 4 - Invitees

The following individuals are invited to attend board meetings:

Team Parents

Mentors

Coaches

Article 7 - Rules

All members must obey the following rules in order to maintain membership on either of the teams.

Section 1 - Homework Time

There will be a designated "quiet" room for homework. Each member of the teams will be required to spend a minimum of 30 minutes each school day in the homework room before they can work on robotics related activities. During this time they may work on homework, or assist other members with their's. Students may use the "quiet room" more than 30 minutes if needed to complete homework.

These 30 minutes shall be counted toward your time commitment. Students may NOT be engaged in games of any kind in the homework room. They shall be doing homework or studying only. If they claim they have no homework, the Team Captains can give them an assignment for the teams.

Section 2 - Time Commitment

Each team member must "clock" at least 100 hours of work time during the Build Season. Build Season is defined as the time period from the challenge kickoff to when we "ship" the robots. Additionally there is a time period between "ship" date and our first competition which is typically 3-4 weeks. It is strongly encouraged that you continue your attendance schedule during that time. The teams will still be working on completing important tasks related to competition.

During "build" each member must record their time via the Time Log. The Team Captains are responsible for instructing the members and the administration of the Time Log. During the Build Season, it is mandatory that each team member attends every Saturday. Students may miss a Saturday for illness or a prearranged event. You must make sure the appropriate Team Captain is aware of your absence, in advance. If you miss more than two unexcused Saturdays, the Captains will meet to determine your continued participation on the team.

If a member forgets to record their time properly: For the first infraction, the Team Captains will adjust their time for them; for the second infraction, the Team Captains will record their time from when they approach him; for every infraction afterwards, the Team Captains will not record their time.

Section 3 – Departing

When leaving any and all robotics meetings/workdays you must make eye contact with a Coach and have him acknowledge that you are leaving. Do not forget to clock out of the time log as well.

Section 4 - Meals

In order to utilize the limited time allowance during Build Season, we will ask parents to bring in a meal to feed the entirety of both teams each workday. There will be a calendar available with slots to commit to. The Meal Coordinator shall be the administrator for the calendar as well as reminding parents of their commitments.

Each day of Build Season, there will be a set up and clean-up crew to be sure everyone can eat and get back to work within a reasonable time frame. Every student will be part of the crew at least once during the build season. Please be diligent and meticulous when doing setup and cleanup. The meal will begin when food arrives and is set up. This time will go for approximately 30 minutes, which should be ample time to eat and socialize. After eating the clean-up crew shall ensure the eating area is cleaned, and all tables replaced as well. Any student whom eats with the teams on weeknights must stay for the remainder of the evening.

Section 5 - Inappropriate Activities

Discussions on topics not pertaining to robotics, including, but not limited to, religion, politics, video games, and sports, must be kept to a minimum.

If a member is caught using a computer for reasons other than productive robotics activities, they are banned from the computers for a week. If caught a second time they are banned for the rest of the Build Season and the member's parents are called to pick them up. If they are caught a third time they will have a talk with the coach.

If a member is caught playing any game, video or otherwise, the device is confiscated until the end of the day or until they leave. If they are caught a second time, they will have a talk with the coach.

Section 6 - Clothing

Students must wear a freshly laundered team t-shirt while in a public setting representing their team. If we are representing the teams for a sequence of days, students are expected to have the number of clean shirts required for those days. If students are attending a local competition and have opportunity to launder their shirts between wearing, then one shirt should suffice. While wearing the appropriate team t-shirt, students must act responsibly and respectfully.

When working in the shop, students must follow the standards set in the safety guidelines regarding safe clothing in order to remain safe at all times.

Article 8 - Competition

Section 1 - Transportation

Transportation to any event may include Public Transportation such as buses, light rails, along with walking, carpooling, and flying. During the Autodesk Oregon Regional, each student is responsible for his or her own rides to and from the event on all three days. Students must leave the event with the same party with whom they arrived. If a student has arrived via mass transit (bus or Max train) they must depart with the chaperon/Mentor in charge at the time designated for departure. There shall be no deviation from these arrangements without a clear conversation between student, parent/guardian, Mentor/chaperon and Coach. Private Auto Form C must be completed and on file with the Westview High School Vice Principal before any driver may drive students (unless they are the student's own parent/guardian).

In the event that we are traveling out of town for a competition there will be other means of transportation used. In all cases students are assigned to an adult who has passed the BSD background check and must maintain close contact with that person for the entire duration of the trip. Students are required to tell the adult where they are going and must follow the buddy system.

Section 2 - Hotels

Rooms are assigned based on gender, with an adult chaperon in each room. Students are responsible for communication with the chaperon, who must know where each of their room assignees are at any given point in time. Hotels have rules which we all must follow, including curfews and use of facilities; additionally, following the principal of Gracious Professionalism, at all times we will ensure we are respectful of others.

Section 3 - Competition Schedule

There are three days of competition, Thursday, Friday, and Saturday. Additionally, we may have to travel on Wednesday and Sunday for out of town competitions.

The venue opens up between 8:00 and 9:00 am, with the preliminary matches ending around 5:00 pm. Arrangements will be made for eating meals depending on the venue. Thursday, after uncrating and setting up, we will have 2-3 practice matches, the pits will close around 8:00 pm. Friday we will have 7-9 qualification matches, the pits will close around 8:00 pm. Saturday we will have 1-3 qualification matches before lunch. Afterwards the top 8 seeded teams will choose their alliance partners.

After the final rounds the awards will be presented. If either or both of our teams are going on to another competition we will need to be sure to pack tools and the robots accordingly. If we need to ship the robots the Coach will handle that particular action while the Pit Crew packs up. Students who are in the stands need to be sure to help in any way possible and listen carefully to instructions from chaperons. The pits close around 6 pm, and at most venues we will need to vacate efficiently leaving a tidy area behind.

Section 4 - The Stands

You will be either cheering or scouting as detailed in section 5. If you have been assigned and trained to scout, please review Section 5 for scouting responsibilities for each day.

Students who have not been tasked with specific assignments will be in the stands watching matches. While in the stands every student will cheer every team in celebration of the hard work put into building these amazing robots, regardless of their performance. Sitting and doing nothing shows lack of Gracious Professionalism and Spirit. Our teams are always under the scrutiny of judges and as a team member you need to always be representing our teams with the highest level of Spirit and GP.

Section 5 – Scouting

Students will be assigned to scout by the Scouting Leaders. Students assigned to scout are responsible for reporting to the appropriate Scouting Leader as directed every day during competition time. The scouting team shall consist of a number of scouters (one per team on the field), the Scouting Leader, and the scouting assistant.

The scouters shall each be assigned to a robot position on the field and observe all robots that begin a match in that position. Scouters will be given a set of scouting materials. Scouters are responsible for getting their scouting data to either their Scouting Leader or the scouting assistant when a sheet is full or at any break period so that data may be entered. The Scouting Leaders shall determine when data may be entered during the competition at any time he or she deems proper.

The scouting assistant is responsible for ensuring that each scouter is on task and for collecting the scouting sheets and returning them to the Scouting Leaders, as well as performing any other tasks the Scouting Leaders deems essential.

The Scouting Leaders are responsible for selecting the scouters and assigning them to each robot slot on the field. The Scouting Leaders are responsible during competition for entering all data collected by the scouters into the scouting software, and for subjective scouting (data that is not collated by the scouting program and is solely based on the Scouting Leaders' past experience). The Scouting Leaders must complete the collation and calculation of this data prior to the Alliance Selection period of competition, and deliver the data to the designated Team Representative.

Section 6 - The Pits

All students will have an opportunity to visit the pit area during all matches. The preference is that up to 6 students maximum be away from the cheering team at any given time. While in the pit area, students can walk around looking at the other teams' robots, and interacting with other teams' members.

This activity is encouraged and is a great opportunity to see examples of how other teams market their robot and team. It also gives students an up close look at the actual mechanics of a competing robot. We also encourage team members to collaborate on their findings and even take notes or give information to scouters regarding specific functions of different robots. Other students will be either in the stands cheering or scouting.

There will be no running at the venue, especially in the pits. When in the pits safety glasses must be worn at all times. At the competition, students will act maturely, remembering the importance of GP. Horseplay will not be permitted.

Section 7 - The Pit Crew

The Pit Crews shall consist of highly dedicated students (200+ hours) who have superior knowledge of the robot, their field, and a high maturity level. All Pit Crew members must be comfortable with talking to judges, and well versed in the full functionality of the robot as well as all team policies. They must do their best to display Gracious Professionalism in every manner possible. There will be two mechanical members, one electrical member, one programming member, the safety officer, and a junior member.

The responsibility of the mechanical, electrical, and programming members is to make sure the robot is fully functional for each match and to repair any damages.

The safety officer's responsibilities are to make sure that the members of the Pit Crew are doing all repairs in a safe manner. The safety officer is also responsible for making sure that the pit is kept clean and organized.

The junior member (battery handler) is to help the other members in any way that they can. They are also responsible for making sure that the battery is changed out and that all batteries are charging.

Section 8 - The Drive Team

The Drive Teams shall consist of key members of the Pit Crew who have demonstrated the most dedicated students on the teams (220+ hours) who are comfortable with high-pressure situations. They must also have advanced knowledge of the challenge and the robot as well as superior driving skills. They must exemplify Gracious Professionalism in all manner of their conversation and actions. They must live up to all expectations defined by the Pit Crew.

Primary Driver - Is responsible for piloting the robot in competitions and maintaining the working order of the robot in the pits.

Secondary Driver - Is responsible for activating the game piece manipulator(s), and acts as a second pair of eyes for the Primary Driver.

Strategist - Is responsible for talking with other teams we are allied with to discuss strategy and understand each other's strengths and weaknesses. They are also in charge of directing the Primary Driver and Secondary Driver. Will act as the Team Representative during the final alliance selection process.

Human Player - Is responsible for handling game pieces as specified in the rules of the game.

Section 9 - World Championships

Six teams from each regional are invited to compete at World Championships. There are usually between 350-400 teams at Championships in four divisions. At any given time, there are four matches occurring simultaneously, as well as the World Championships for FLL and FTC.

Guidelines are the same as for a Regional.

Article 9 - Amendments

Amendments to this constitution shall require a vote by the Board, requiring a 3/4 majority vote.

Westview Robotics Team and SST Robotics Team Membership Contract

I have read and understood the entire Westview and SST Robotics Constitution, and agree to adhere to the guidelines contained therein with emphasis on the following points.

- I will practice Gracious Professionalism.
- I will adhere to the parameters of this constitution and BSD code of conduct.
- I understand the team Hierarchy – Members – Leaders – Captain – Mentors/ Parents/Adult Leaders – Coach, and will not question authority.
- I understand my commitment includes logging 100 hours minimum, attending all Saturday workdays, and keeping my time log up to date during build season.
- I understand my commitment includes keeping a current email address and checking it daily for updates (**this applies to parents as well**).
- I understand I need to stay on top of my academic performance, homework load and time management skills to remain on the team.
- I understand the guidelines set for the use of computers and game playing while meeting as a team.
- I will adhere to the guidelines set for mealtime protocol set up/clean up as well as departure and clean up at the end of a team work day.
- I will care for my team uniform and wear it within the guidelines of this

handbook.

- I understand I am expected to participate in fundraising activities to benefit the team.
- I understand I am expected to participate in periodic demos and outreach events; (i.e. Poynter MS, Packed with Love, OMSI, Corporate Demos)
- I will adhere to the parameters regarding team travel and events, including but not limited to my behavior in the stands and in the pits.

Student Signature_____

Date

Date Parent Signature