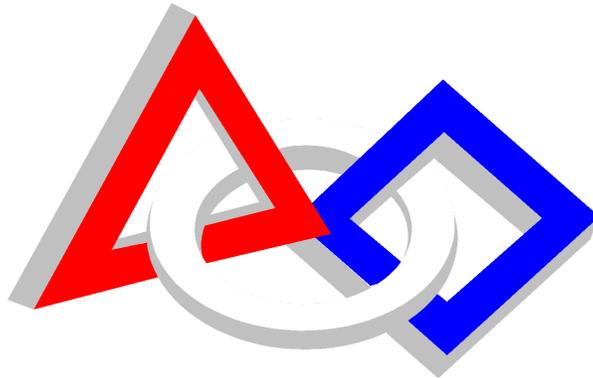


WILD STANG

FIRST Robotics Team



Handbook

*Special Thanks to Team #25
For Providing A Template and Inspiration
For The Following Handbook*

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Welcome

Welcome to the WildStang Robotics Team. You are joining a program with much pride and tradition. This handbook is intended to provide an understanding of the program and your responsibilities as a team member. The following pages have information relating to team member expectations and responsibilities, fall and spring class information, selection process for travel, team rules and guidelines, organization at events, traveling, communication, and many other aspects of the team.

Please review all the information carefully. If you have any questions not covered, ask a coach/teacher. You are encouraged to share this manual with your parents (it can be found on wildstang.org), and keep it handy for future reference.

The WildStang website (wildstang.org) is your go-to source for all things WildStang. Bookmark it on your iPad. Team news, pictures, videos, useful links and other important information will be available there.



Application Process

Students must apply for acceptance to the team every year and if accepted, be enrolled in the appropriate level course. Applications are available on wildstang.org in early February.

- **First Year of Participation - Robotics 1**
- **Second Year of Participation - Robotics 2**
- **Third Year of Participation - Robotics 3**
- **Fourth Year of Participation - Robotics 4**

Team Selection Process

In February, all non-senior students need to re-apply to be on the robotics team for the following year. District 214 evaluates the applications and consider each students' participation and commitment. Several weeks later students will be informed if they have made the team for the following school year. Once the number of returning students is determined, the number of open spots for incoming students is determined.

Criteria for Membership on WildStang Robotics Team

1. **Members must maintain academic eligibility per school policy.**
Periodically throughout the year, teachers are updated on student academic eligibility. To remain academically eligible for the class, students must be passing four classes. To remain academically eligible for the team, you must be passing all of your classes with a grade of 'C' or better. All students need to develop the skill of balancing school work and their activities.
2. **Members must follow the co-curricular code for District 214.**
The robotics team is a co-curricular activity, just like any sport. This includes behavior and the use of alcohol, tobacco, or drugs. All students and parents are required to review and sign their acknowledgement of the co-curricular code.
3. **Members must attend the Monday night class, subteam meetings, and Team Functions.**
Attendance and punctuality are indicators of a students' commitment to their education and future. A team member needs to be available and ready to participate as much as possible. When asked to participate, establishing a record of dependability and punctuality is essential to team organization and efficiency.
4. **Parents are encouraged to participate in team activities and help in team operations.**
The team cannot function without the help of many dedicated parents through assistance with fundraising, organizing, carpooling, and helping with various aspects of the team. Any adult volunteering time on a nightly basis will be asked to meet with Mr. Wong and go over expected rules of conduct when working with teenagers.



5. **Proper safety will be observed by students at all times.**

Students utilizing hand or power tools will undergo safety instruction and testing before using equipment. All students must own a pair of safety glasses and these must be worn near any machinery and at every competition.

6. **Adherence to FIRST Philosophies and WildStang Core Values**

- a. This will be created through our Fall WildStang Retreat

7. **Demonstration of Appropriate Behavior.**

The WildStang Robotics Team is a unique team of students and adults. We all rely on each other for the success of the group. Everyone is expected to bring the best of their abilities to the group, all year. Competition season each year is both expensive and time consuming and it is expected that all involved will behave as motivated young adults with the greatest regard for others.

- a. **Consistent Demonstration of Good Judgment and Positive Behavior.**

Each team member is an ambassador of our team. Team members need to set the example as role models for other students to emulate and respect. Solid behavior choices should be demonstrated at all times, in and out of school activities.

- b. **Ability to Commit to a Project.** Starting a project and following it through to the end is critical to team performance. Team members need to dedicate themselves and not get side tracked or discouraged. Your word is very important. **Don't take responsibility you cannot perform and ask for help if you are having problems with a project. There is no excuse for a broken promise on this team.**

- c. **Ability to Work Both Independently and as a Team Member.** Being able to be a team player, doing what is needed for the team is an asset to all. However, working independently with little or no direction shows dedication and willingness to learn.

- d. **Interest in Science, Technology, Computers, Robotics, Media, Social Responsibility and Related Fields.** Team members need to have a genuine interest in one or more of these areas.

- e. **Demonstration of Honesty and Integrity.** Honesty and integrity are looked upon as important attributes of a quality person.

- f. **Time to Spend on Activities.** The WildStang team requires many hours of a student's free time. Careful planning and scheduling are required to stay actively involved. In some cases, choices as to other activities may need to be made.



Fall Class

The robotics class meets at MacArthur Douglas Middle School from 5:30-8:30 PM every Monday night. Check wildstang.org for class schedule updates. Robotics class is a credit-bearing class and students should take their participation seriously. A variety of activities are accomplished during the fall class including but not limited to team building, introduction to engineering, mini-robot instruction, and instruction on subteam topics.

Sign-in sheets are provided for class every Monday night. Students need to notify one of the instructors if they will be absent from class. If students are unexcused from class they jeopardize their chances for being selected to travel during the second semester. Excessive absences could result in removal from the team.



WildStang Participation

The WildStang Team requires many hours beyond the normal school day. The class itself meets on Monday evenings. All team members are required to participate in the after school workshops, events and other team activities outside of class unless a valid reason for absence is provided. A formal roll call may or may not be taken during other meetings and activities and student absences will be noted. It is understandable team members may be bound to other extra-curricular activities, such as jobs, teams or clubs, and it is expected that the necessary amount of time be spent with the WildStang team. Communication with the teachers and mentors is the key to your success.

Co-Curricular Code

The WildStang Team falls under the District 214 Co-Curricular Code. A separate flyer containing the co-curricular code will be distributed at the beginning of the year. Students and parents are expected to read the code and sign acknowledgement of receipt of the code.

It is especially important to realize that even though many of the WildStang meetings and competitions occur off campus you must still behave as if you were in a school building.

School Work

All team members are expected to maintain their grades and class work during the entire time he or she is on the team. Selection of members or participants is at the discretion of the teachers, sponsors, or coaches, provided that the selection criteria conform to the District's policies and procedures. Participation in co-curricular activities is dependent upon course selection and successful progress in those courses. In order to be eligible to participate in any school-sponsored or school-supported athletic or co-curricular activity, a student must satisfy the Illinois High School Association's scholastic standing requirements. Any student-participant failing to meet these academic criteria shall be suspended from the activity until the specified academic criteria are met.

When attending competitions, it is up to the student to get class assignments in advance from their teachers and complete the work in a timely manner.

Parents can monitor student grades through Infinite Campus
<https://www.d214.org/academics/infinite-campus/>.

Attendance

It is the students' responsibility to maintain good attendance. For the Monday night class, attendance is maintained by student sign-in each week. If you do not sign in on the attendance sheet, there is no record of your attendance.



It is understood that students are busy in many other school activities. These activities are encouraged and supported by WildStang. It is the responsibility of the student to manage and balance all their activities, informing the teachers of their commitments. It is important to communicate with your coaches to work out the timing of your activities. Often these activities can be accommodated to the satisfaction of both activities.

There are some instances however, where the timing cannot be resolved. In this case, you may have to choose which activity you will be putting your time and effort into. Please discuss this problem with one of the WildStang coaches before you make a final decision.

Behavior

As a WildStang Team member, you are held to a high standard that many other organizations do not require. You are representing the team, your high school, District 214, and our many sponsors. One of the strengths of our team is the exemplary behavior students have exhibited over the years.

School

Your behavior in school and specifically in the classroom is a message to all regarding the caliber of students on our team. You are looked upon as role models and are expected to be polite and respectful to all staff members and refrain from activities that are considered disruptive. Any team member receiving a disciplinary referral of any type is subject to review by the teachers.

Events

Everyone is watching you when you are in public. Your tie-dye uniforms are very well known. Your behavior is a direct reflection on your character, the team and the team sponsors. A judge, volunteer or member of another team may over-hear what you say to one another and how you say it. Even the expressions on your face and body language may bring unwanted negative attention and bad impressions.

We are a close group when we travel and conflicts may arise as a result. Students should refrain from rumors, he-said-she-said, and negative comments about one another. If a problem arises with another student you should talk with a teacher immediately. Students are not allowed to have physical conflicts with one another. If a problem like this arises, both students will be disciplined per school and District policy.

Inappropriate Behaviors

These behaviors include but are not limited to the following:

Running, pushing and shoving, negative name calling, making messes, fighting, swearing, stealing, and all other activities that reflect negatively on the team.



Cooperation

Students are requested to cooperate at all times. This means if one of the teachers or mentors asks you to do something you comply to the best of your ability. Ignoring directions or requests of a teacher or mentor is not in the team's best interest. If you feel a request is out of order, you are encouraged to complete the task and then speak to the teachers/mentors at a later more appropriate time.

Safety

Safety is a major consideration for anyone involved with the robotics program. We are fortunate to have had very few injuries over the years. The following considerations must be followed at all times:

1. Students must own safety glasses and wear them whenever they are at the playing field, fabrication lab at MacArthur, the machine shop at Wheeling High School, or in the pits at a competition.
2. Any student utilizing either hand or power tools must receive safety instruction and pass safety tests before being approved to operate the machines or work with the tools.

Any student intentionally using tools inappropriately or who presents a safety problem around machines will jeopardize their participation in the robotics program.

Uniforms

Our shirts almost always have a tie-dye color combination with unique graphics added each year. The current season's t-shirt is to be worn at all competitions. The annual WildStang student fee includes two current season's t-shirts. Additional t-shirts may be purchased by students and parents.

If students want to trade t-shirts at competitions, they need to purchase additional t-shirts for trading.

Team uniforms consist of team t-shirt, long pants, closed toe shoes, and safety glasses. Uniforms must be worn at competitions and demonstrations.

When wearing your uniform (tie-dye) you represent WildStang, District 214 and the team sponsors. It is your responsibility to represent the team in ways that bring positive (not negative) attention and make the team coaches, mentors and parents proud.

Personal Relationships

In the event that a relationship develops or is ongoing, there are certain guidelines that must be adhered to at all times when engaged in team activities local and away.

Expressions of personal affection are prohibited at all times. The couple must also travel in a group at all times. Couples may not wander off or sit alone. They



should not appear as a couple but as part of the team. Common sense should prevail at all times.

The teachers reserve the right to discipline team members as necessary for the safety and the overall good of the team. The parents of the students involved will be informed of any disciplinary actions as soon as possible.

Outreach

Outreach is an important aspect of connecting with your community and other FIRST programs. All team members are required to participate in a minimum of one outreach activity during each semester. Potential outreach activities include Miss Maker Workshop, FLL Kick-off or Scrimmage, and robot demonstrations All team members are encouraged to develop additional outreach ideas that could have a positive impact on our community.

Fundraising

Numerous opportunities are organized by WRSA to support the team and its needs. As a member of the team your participation is appreciated and expected.



Teachers/Mentors

The teachers and mentors are dedicated adults working hard to support the team. Most of their work is done outside of class and scheduled work times. Their work includes team organization and activities, financial planning, overall team management and much more.

Teachers

There are a minimum of four teachers working with the team throughout the year, focusing on administrative work, curriculum, and general management. All four teachers are technology education instructors, working with a variety of different grade levels and students.

Mentors

The WildStang Team is fortunate to have approximately 18-20 dedicated engineers and other professionals helping the team. The dedication and effort of these individuals year after year contributes to the overall success of our team. Your mentors are a great source of wisdom and knowledge for you.



Travel

Traveling with the team is very exciting and rewarding and often the highlight of a student's team experience. A great deal of planning and organization is required to coordinate all the associated activities. A strong effort is made to make the travel an educational/cultural experience along with a competition experience. Safety is always the major concern.

The team typically participates in three events: two Regionals and the Championship. All team members are expected to travel to the Midwest Regional. Students will be eligible to attend the second regional and the National Championships based upon the criteria in the next section. Everyone is eligible to attend any summer competitions the team competes in.

Travel Requirements

At the beginning of the FIRST competition in January, parents are surveyed to ask if they would like their son/daughter to be considered for travel for that year. Students not traveling in a particular year must still participate in all team activities.

To be eligible for travel, students must meet the minimum requirements listed below:

- Academic Eligibility
 - Must maintain academic eligibility throughout the build and competition season
 - Students must complete all class-related assignments
- Attendance
 - Students with 3 (or more) unexcused absences will not be eligible for travel
- WildStang Outreach Events
 - Students are expected to fully in team activities, including volunteer events
 - Students are required to help out with one of the following events:
 - Miss Maker Workshop, FLL Scrimmage, VEX Setup
- WildStang Activities
 - Students are expected to be present for:
 - BBQ Night, WildStang Team Retreat, VEX Competition

Demonstration of:

- Working knowledge of lessons taught during weekly meetings. Ability to explain ideas and concepts used on the robot or related programs to an outsider not involved with the program.
- Excels in one or more areas of the program. Takes an active role in the design, development, construction, marketing, promotions, etc. of the robot design and build process. Demonstrating ownership in a portion of the project provides an advantage in troubleshooting and/or repairing the robot at competitions.



- Meeting and/or exceeding financial responsibilities for traveling/lodging and food expenses. The approximate cost of a trip is approximately \$200-\$350 depending on location. Should travel fees impose a hardship upon a family, discuss with the lead teacher, as scholarship opportunities may be available to assist in shouldering the costs.
- Working well with others/in a group. The ability to work in a group and express ideas to others effectively is a valuable skill. Every aspect of this program is team oriented. There is no room for selfishness during the construction of the robot or other projects, and especially during the competitions on the national level.
- Demonstrating a great attitude toward team members, adults, and other competing teams. Poor sportsmanship and bad attitudes will not be tolerated. "Gracious Professionalism" is one of the key phrases you will hear throughout the season.
- Must be enrolled in either Robotics 1, Robotics 2, Robotics 3 or Robotics 4. Students are expected to report their attendance and participation on their various teams by completing weekly progress reports every Monday night at the beginning of class.
- Parents/Guardians and students must have all required signatures filled in and dated correctly on all travel forms. Forms include: Hold Harmless release forms (student travel and use of equipment), Co-Curricular Code acknowledgment, Interest to Travel Form, Medical Concerns Form, and Internet Student Name and Likeness Use Release Form.

Competitions

Regional Competitions

A regional event may be close or a distance away. The team always attends the Midwest Regional and one additional Regional tournament. Which additional Regional attended is dependant upon location and timing of the events. We try to pick a Regional where we can best showcase our team and are exposed to a variety of quality robots. Regional set up and practice take place on Wednesday-Thursday and competition is Friday and Saturday.

FRC Champions Competitions

The National event is similar to a Regional event in many ways but on a larger scale. There are teams from all over the United States and the world competing at all four levels of FIRST programs.

Off Season Competitions

The team typically participates in one off season event during the summer. All team members are eligible to attend this competition.



Behavior at Competitions

There are certain practices found to be very successful and have earned us the respect of the FIRST community.

Cheering

Cheering is more than yelling at the top of your lungs. True cheering is enjoying the event and celebrating the excitement of the moment. Organization is the key to this being a powerful tool. You are expected to cheer for all WildStang matches and our partner teams. Sitting in the stands looking bored, carrying on personal conversations while others are cheering is not good for the team image and is not permitted. During the Awards ceremony we applaud all the teams winning awards.

Clean Up

If you see a mess (paper or trash) make an effort to pick it up whether around the arena or in the area you are sitting.

Things We Do Not Do At An Event:

- Wearing of personal music devices is forbidden while in uniform or at an event
- No computer games (handheld or laptop) during competitions. Get up and talk to other teams.
- Students may not play cards or other games at an event
- Engage in negative behavior toward another team, team member, mentor or volunteer
- Display displeasure over any decision by a referee or judge

Hotel Accomodations

All room assignments are made by the teachers. There is no switching of rooms without a teacher's consent. Students will be organized into room groups of three to four students, depending on the number of students and room availability. There are no co-ed rooms; rooms are either male or female. Under no circumstances are students of the opposite sex allowed in each others room for any reason. Each room will have chaperone(s) assigned to monitor and coordinate activities, including room inspections.

Prior to check out, all student rooms will be inspected by the teachers/chaperones. Before inspection, the room should be picked up. Having towels, sheets, bed linens piled on the floor is unacceptable. Anything broken or missing will be paid for by the students in the room. Any room damage will be reported to the deans and your parents.

Health

In order to travel, each WildStang team member needs to have a completed medical form on record with the team. The form will be duplicated and taken with us to all events.



Students taking any medications while we are traveling need to leave the medication with one of the teachers for distribution.

It is important that you do not travel if you are ill.

Chaperones

While the team is on trips, chaperones are responsible for the students. Misbehavior towards any of these adults will result in severe consequences.

If you have any concerns with the activities of an adult or their behavior toward you or others, please talk to one of the coaches/teachers first. If the situation is not resolved the next step is to talk to the school administration.



College and Career Opportunities

WildStang Robotics is run like a business. Students are exposed to all types of career opportunities from engineering to marketing and more! During this program students will be exposed to many business and leadership principles through coursework, teamwork and from working with their mentors. We recognize the possibility that not all students will go into an engineering career. The teamwork and leadership skills each student will gain as a result of participating on the WildStang team will prove invaluable for any career choice. It is our goal to expose students to technology careers including but not limited to engineering. Students are highly encouraged to discuss career choices with the mentors.

There are many scholarship opportunities associated with the FIRST program. The teachers will provide information regarding scholarships as they become available. Check usfirst.org for additional information.

While teachers and other mentors are happy to write you letters of recommendation, it is up to the student to seek out the opportunities and fill out the required applications.



Parents

Parents are an integral part of our team and are very important to our continued success. Parents are also a key factor in the motivation and dedication of their student. Supporting their son/daughter in all aspects of team involvement is key to getting the most out of the program.

Parent Responsibilities:

- Parents are encouraged to participate in team activities whenever possible.
- Provide timely transportation for the student. Make sure your son/daughter is at the required classes and events on time and ready to participate. We often leave for a competition very early in the morning to facilitate transportation. Parents are expected to have the student at the designated location at the prescribed time. We will not delay transportation.
- Upon return from an event parents are expected to provide transportation at the designated time. Late transportation causes an inconvenience to all involved.
- Parents are expected to provide transportation to local events.
- Parents are expected to provide accurate medical information and keep teachers informed of all changes.

Parent Volunteer Opportunities

WildStang Robotics Support Association (WRSA) is the 501(c)3 not-for-profit parent support group for WildStang. WRSA has elected board members that serve to support the mission of the team. For WRSA to be successful, all parents are encouraged to volunteer time or products through the various activities WRSA organizes. Learn more about WRSA and activities at [WRSA section on the WildStang website.](#)

On a yearly basis, all adult mentors and volunteers associated with the WildStang team and who help for more than one day must meet with Mr. Wong to review guidelines for working with and interacting with students. Parents will be asked to sign a form indicating acknowledgement of the guidelines.



Team Communications

Due to the structure of our teams and class, for a large part of the year, we meet once a week. Having a set way to communicate with each other is extremely important.

Slack

Slack is the primary method for coaches & mentors to communicate with students. Students are required to install the Slack app on school issued iPads. It is also strongly suggested to install Slack on your phone and enable notifications.

E-Mail

Questions about meeting times, places, etc. should be directed through the appropriate Slack Channels established by the coaches/teachers. Students **should not** contact mentors via email, personal phones and/or social media.

WildStang Website

Visit our website at wildstang.org. Team schedule, events, news, pictures, videos, useful links and other important information is available there.



Subteams

The WildStang Robotics Team is made of several subteams to get the FIRST® project completed. By dividing into specialized groups, students are able to focus on specific aspects of the project.

- **Mechanical/Design:**
Students on this sub-team assist in the design and building of the robot. During competitions, a subset of the mechanical team will work in the pits maintaining and repairing the robot between matches.
- **Field:**
Students on this sub-team focus specifically on shop maintenance, safety and field construction. This team is responsible for cutting field elements and assembling them during the spring semester. Students within this sub-team will also focus on maintaining and organizing shop tools.
- **Electrical:**
Students on this sub-team are responsible for designing, building and maintaining all electrical and pneumatics systems on the robot and the operator interface. A subset of electrical team students will work in the pits to maintain and repair the robot between matches.
- **Software:**
This sub-team develops the code for the autonomous functions of the robot. The sub-team learns the programming necessary to make the robot run. They work closely with the mechanical and electrical teams so the robot performs in the manner in which it is designed.
- **Communication:**
This Subteam directs the public representation of WildStang. We run all social media, including Facebook, Instagram, Twitter, and YouTube. We are responsible for the team's website, WildStang.org, working to increase the content and making it more user/public friendly. We also help organize Outreach events for the whole team. All members of WildStang are required to participate in team outreach and students on the Communications subteam help to plan, implement, and record those events. All WildStang members are also expected to help with award submissions, and students help create the essays and videos that are used for these awards.

These Subteams make up a majority of the curriculum for the Fall Classes. Students meet with Mentors to learn the skills needed for the team to compete successfully during the Competition Season. Student are required to select one of the Subteams, and will work with this Subteam throughout the year.

There are additional subteams that serve to support the team. All students will work with these support subteams at different times. These subteams include:



- **Drive Team:**
One of the most visible Subteams within the program. Positions on this subteam are filled by tryout. Due to the high visibility of these positions, being placed on to this subteam is not solely based on a student's performance during tryouts. Behavior, grades, and other items listed in the [WildStang Participation](#) section of this handbook will be evaluated as well. While all WildStang Students are held to a higher standard, Drive Teams Members are expected to be at even a higher standard.

- **Pit Crew:**
The Pit Crew is responsible for making sure the Robot is able to make it to the field and be in its best working condition for every match during a competition. This subteam is made up of members from the Mechanical/Design, Electrical & Software Subteams. Members for the Pit Crew will be selected by the Team Coaches and Lead mentors from the individual Subteams.

- **Awards:**
Students on this subteam write submissions for the Chairman's Award, Woodie Flowers Mentor Award and all other FRC Award submissions. They also act as spokespersons for the team at the Championship competition. Students will research awards and determine what the team submits applications for.

- **Strategy/Scouting**
Students on this sub-team develop materials and methods to assess the competition giving our team as much advantage as possible. The collection of data and the analysis of the information will assist our team in all phases of the competition.

- **Playing Field**
This sub-team builds and maintains the practice playing field and components. This field is used by:
 - Mechanical/Design team to assist them in the design of the robot
 - Strategy Team to visualize real-world Field conditions.
 - Drive team to practice with the robot.

- **Promotions**
Help with the design and production of team promotional & spirit wear, including the Annual Team t-shirt/uniform and Pit Awards.

- **Photographers**
Photographers work with the Communications Subteam to shoot video and stills of the team activities throughout the year. This includes Classes, Team Meetings, Outreach Events and Competitions. At Competitions



photographers, will work with Strategy/Scouting and Drive Teams to document matches.

- Writers/Bloggers
Writers create content for the Team Website, promotional material & brochures, press releases and newsletters.
- OutReach
Students identify outreach opportunities to participate in, organizes, recruits volunteers, and executes activities.



Acceptance

I have reviewed and read the WildStang Team Handbook. I understand the rules and responsibilities outlined and acknowledge failure to abide may result in disciplinary action or removal from the team.

Student Signature

Date

