



The Hawk Collective FIRST Robotics Team 2890 Handbook and Team Contract



You have been assimilated” - FRC 2890

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Introduction

FIRST (For Inspiration and Recognition of Science and Technology) Robotics Competition (FRC) is a unique sport of the mind designed to help high-school-aged youth discover how interesting and rewarding the field of Science, Technology, Engineering, and Math (STEM) can be. To learn more about *FIRST*, visit website: www.usfirst.org.

"The varsity Sport for the Mind," FRC combines the excitement of sport with the rigors of science and technology. Under strict rules, limited resources, and time limits, teams of 25 students or more are challenged to raise funds, design a team "brand", hone teamwork skills, build and program robots to perform prescribed tasks against a field of competitors. It's as close to "real-world engineering" as a student can get. Volunteer professional mentors lend their time and talents to guide each team. (USFIRST.org)

FRC Team 2890 – The Hawk Collective (formerly Hawk Robotics), started in the fall of 2008 with the assimilation of Hickory High School students and teachers in Chesapeake, VA. Our accomplishments include the 2009 Rookie All-Star award, 2011 and 2012 Chrysler Team Spirit award, 2009 World championship participant, 2017 Excellence in Engineering Award, 2018 Gracious Professionalism twice, and student recipients of over \$400,000 in *FIRST* Scholarships and Engineering money from schools all over the country.

"The secret of building a successful team is not to assemble the largest team possible, but rather to assemble a team that can work will together." – Dean Kamen, Founder of *FIRST* Team

Mission Statement

The mission statement of Hickory High School's *FIRST* Robotics Team 2890 – The Hawk Collective is that FIRST® Robotics is not just about building robots. It is about inspiring students to develop communication, technical, and leadership skills for the future through engaging hands on activities that develop self-confidence, sportsmanship, and life-long friendships

Team Philosophy of the Robot

Our philosophy is that our robot is student designed and student built. With the help of alumni, coaches, and mentors students design components of the robot and student leaders work together to incorporate the designs into one robot. They must meet all rules set forth by *FIRST*. Mentors are there to guide and review issues, but it is ultimately the students' decision in the robot design. For better or worse, this is a student designed and built robot.

Code of Conduct

Students must be able to function in a positive environment in order to be productive and ensure a positive atmosphere. All members of the team are expected to exhibit exemplary behavior and act as role models for their peers and other team members. Team members will be in the public eye both on and off the playing field. Knowing this, appropriate behavior is expected. The actions of a team member are a direct reflection of themselves, their team, their school, corporate sponsorship, and family. As a team member, it is expected to wear the appropriate team shirt with respect and pride in what it represents. "Good Sportsmanship" consists of respect for others and cooperation with teachers, mentors, coaches, teammates, and officials.

Depending on the severity and seriousness of a behavior issue, the team member may be dropped from the team, suspended from the team, or given a verbal warning. In all cases, the situation will be rectified in a timely manner to the satisfaction of the teachers and school administration. FRC team 2890 asks that you treat everyone with respect.

Coaches & Mentors

The adult members of the team are divided into two categories: coaches and mentors. The coaches are the school faculty that are responsible for making decisions and leading the team. The mentors work with the coaches and students to facilitate the team's goals and objectives. A mentor may be from industry, from the community, or just a volunteer.

Coaches: Chris-topher Slater
Rick Douglas
Christian Tynch

Mentors: Mr. W. McCorkill
Mrs. McCorkill
Mr. Pardus
Mr. Tackett (GE Volunteers)
Mr. Nienaber (NASA)
Mrs. Wright (NNSB)
Mr. Victorio (Unisys)
Mrs. Ruiz
Mr. Labelle (SPAWAR)
Mr. Weimer (THOR Solutions)
Mr. T. McCorkill (MITRE Corp.)
Mrs. Bower
Mr. Heins (MITRE Corp)

Student Leadership Criteria

Students who are interested in a leadership position will have to prove them self to team members and mentors. There will be an initial paper application, followed by an interview, with coaching from a small group of leadership. The candidate will then put on a small campaign, followed by a presentation / speech where they will convince the team of their qualifications. There will be secret ballot, if the candidate receives a majority amongst all members (mentors and students) they will step into that leadership position.

Term of leadership will be one calendar year. With the option to reapply.

If there is a problem with the leader after he or she is elected the following steps will be followed.

- 1) Personal consult with a small group of mentors/coaches to discuss the problem.
- 2) Parent/Guardian will be notified, Second meeting with mentors/coaches.
- 3) Removal from leadership.

Student Expectations

Students will put priority on their grades over the team's needs. Grades are important. Students must complete schoolwork prior to participating in work sessions and activities.

- **Take initiative:** to do things, within reason. You will get out of the team what you put into it!
- **Attend Meetings:** Our team does a lot of work at meetings. If you do not attend meetings, we may assume that you are no longer interested in being a part of the team. Be on time both to meetings and in finishing your work.
- **Keep in Communications:** Most of our communication of important dates and information will occur on Discord and/or Slack. Team members will be held responsible for anything put out on these lines. Slack and Discord apps will need to be added to your phone/computer.
- **Work Diligently:** Deadlines will be set for tasks, and it is expected that those tasks be completed by those deadlines. If you can't finish a task, it is your duty to make sure it gets finished by someone else. Checking team approved communication system on a daily basis is also strongly recommended.
- **Ask questions:** While we love people to take initiative, pretending you know how to do something if you don't is a very bad idea that can lead to extremely dangerous situations. It is not expected that someone will know everything, even if they have been a team member for a few years. If you need help or an explanation, ASK.
- **Be mature:** If you have a question or concern about a recent event on the team or decision by team leadership we expect you to come to team leadership to discuss the issue in a calm, mature, and professional manner.
- **Be gracious and professional:** Sometimes things don't go as you expect. Appreciate what everyone does.
- **Maintain courteous relations with everyone on the team:** You don't need to be everyone's best friend. You only need to work well enough with everyone who works with you, whether they are part of the team or not.
- **Be respectful** to everyone, whether they are present or not.
- **Stay focused** A little bit of goofing off is expected; however, distracting or off-task behavior should be kept to a minimum. If you need to burn off some energy, take it outside and away from the machine shop. Goofing off in the same room as a band saw or a power drill can have dangerous consequences. Maintain a good image of the team AT ALL TIMES.
- **Be safe** Know both who the safety captain and safety procedures and follow them. Using tools is a privilege, not a right.
- **Obey rules** and team leadership If you have been notified of something, that stands. If something feels unfair, please bring it up with the coaches.
- **Arrange for parents/guardians to be present at every meeting at least ten minutes prior to pick up.**

Safety

In order to run any successful business or team, a high level of safety must be observed, practiced, and maintained. The following rules are designed to ensure the safety of students, mentors, and visitors:

- Horseplay will not be allowed at any time.
- Students are not allowed to use power tools or machinery without a supervisor's permission/observation.
- Safety glasses must be worn at all times in the workshop.
- When using loud equipment, hearing protection must be worn.

Sub Groups

This year, we are requiring that each student participate in two subgroups on the team. Students will belong to either 1 business and 1 technique groups or 2 business groups. There will be 4 sub-groups in each category the students can choose from. A list and description can be found in appendix A.

Attendance

Attendance will be taken when the subgroups meet and work on their assignments. Students are required to participate with their sub group in order to attend competitions, outreach events, and be considered a member.

Students **MUST** be present and participating for 60% of the sub group meetings. The sub groups must also complete their required assignments to be counted as here. The group cannot just show up, do nothing, leave and have it count as a meeting.

Membership Status

The students on this team have certain expectations to meet. That being said, there are penalties for not meeting those expectations. We want every student to join the team, have a great time, build a robot, and learn. If students violate the rules above, or do not meet the requirements laid out in this handbook, their membership status may change. This will affect what they can and cannot do with the team.

Member: Student is in good standing with the team and may participate in all school, outreach, and fundraising activities. They may also go on the trip.

Suspended: If a member is suspended, they may still do their fundraising activities to earn money towards their fundraising goal. They may **NOT** participate in any school or outreach events. They may not attend any competition until they are in good standing.

Removed from Team: Under extreme circumstances, we will call the parents and have a meeting about removing a student from the team. This will only occur for extreme situations where a referral has been written and approved by administration.

Reasons for Being Suspended from team

- **Fundraising** - You will be suspended if you miss a fundraising deadline. Your suspension will end when the money has been paid. If we cross over another fundraising deadline, that money must also be paid.
- **Grades** - If a student is failing a class, they will be suspended. They will be unsuspended when they have two straight weeks of not failing that course. They can turn in synergy reports from their teacher to show grades.
- **Behavior**: If a student is repeatedly off task, or violating safety rules, suspension may be necessary. If a student gets suspended from school, they are suspended from the team for the duration of the suspension.

School Behavior/Suspensions

Should a student ever be suspended from school for any reason, they will be removed from the travel team and not allowed to attend competitions. This is done on a case by case basis and parents will be notified as soon as a decision has been made. If any student is suspended from school DURING a competition, they will not be allowed to attend the competition. No refunds may be given in either case.

Fundraising

This sport/team is a very expensive activity. Our budget to take our students to events is near \$25,000 per year including registration, transportation, lodging, uniforms, robot parts. This works out to about \$600 per Student. There will be fundraising checkpoints at various points throughout the year that will have to be met. If the student does not reach the funding amount required by the check point the student will have to make up the difference by the checkpoint deadline or be suspended from the team. Each students fundraising will be individually tracked, and considered their own account. All money raised by the student is considered to be team money and is non-refundable. Any money in a student's account that is not used by that student will go back to the general account for the team and cannot be refunded or transferred.

Fundraising Deadlines:

October 29th - \$150

January 15th - \$150

February 15th - Approximately \$300 (Trip[s])

Ways to meet fundraising requirements:

Buy in – Provide a check made out to “HHS” and students name on the memo line for each of the checkpoints or as a lump sum.

Sponsorship – Bring in/find a sponsor who will donate money to our team. Your account will be credited with half of the total amount given.

Parent/Guardians Expectations

The Hawk Collective not only has expectations for our students, we have expectations for our parents and guardians. Every parent is expected to meet the following criteria. Failure to do so may result in your student being suspended or removed from the team.

- Attending all parent meetings. These meetings are normally held at the beginning of the school year in order to provide information about the team. Additional meetings may be called at other times during the year. October 4th and February 28th at 6:00 pm in room 102.
- Providing drop-off & pick up transportation to make sure that students are on time for meetings and events.
- Signing and returning permission slips, consent forms, waiver forms, and other legal documents on a timely basis for ALL students. **Even if they are 18 or older.**
- Checking email often and communicate any correspondence with their families.
- Providing at least one meal during the build season. The Parent Meal Coordinator puts together the schedule for dinners.
- Providing 40 snack items and 40 drinks during the year to help students get through the day.
- Providing transportation, at their cost, to return the student home, if there is a violation of the code of conduct while on a field trip or at competition.
- Parents will visit www.hawkcollective2890.com and sign up to receive updates from the team. This is how we communicate information.

Parent Pick Up:

Our coaches time is valuable, and coaches cannot leave the building until every student has left the school. Should parents be late picking up their students, there will be penalties. They are listed below.

1st Offense: Warning

2nd Offense: Student has to leave before dinner, and not allowed to attend outreach event for one week.

3rd Offense: Student has to leave before dinner, and not allowed to attend outreach event for the remainder of the year.

Team 2890 Membership Contract

Member Name: _____

This Contract is due back signed by a parent or guardian by September 27th (Open House) or the student will be suspended from the team until it is brought back signed.

To be a part of the team, you must:

- Be passing all of your classes. Any student failing a class will be suspended from the team.
- Demonstrate a high level of dedication to the ideals of FIRST and The Hawk Collective Robotics Team.
- Exhibit appropriate behavior at ALL times. This includes behavior within the classroom, school as well as at competitions or events.
- Comply with all attendance procedures as stated in the Attendance Section of this Handbook.
- Follow all rules and guidelines for High School and Chesapeake Public Schools at all times.
- Arrange to be picked up on time at the end of each work session.
- Follow all guidelines and safety rules set forth in this handbook.
- Agree to the fundraising rules set forth in the fundraising section of this handbook.
- Provide a donation of one meal during the build season.
- Provide 40 snack items and 40 drink items during the school year.
- All monies raised, donated, and/or paid towards the team on your behalf becomes property of Hickory High School's FIRST Robotics team and cannot be refunded.
- Attend ALL mandatory parent/student meetings throughout the year.

Any student who fails to meet these requirements may be suspended from the team or not be allowed to attend competitions or outreach events.

I have read the Hickory High School's FIRST Robotics Team 2890 Handbook and agree to the requirements:

Member Signature: _____ **Date:** _____

Student Shirt Size (Circle ONE): **S** **M** **L** **XL** **XXL** **XXXL** **XXXXL**

I have reviewed this handbook with my child and understand the commitment that will be required. I agree to have my child participate on the Hickory High School's FIRST Robotics Team. By signing this contract, Parents/Guardians are agreeing to retrieve their child should the need arise, not meeting rules or expectations.

Parent/Guardian Signature: _____ **Date:** _____

Parent/Guardian Email (Please Write NEATLY): _____

Parent/Guardian Phone #: _____

Weekend Meeting Form

The team will be meeting on some Saturdays, Sundays, and holidays. There are a few different rules and guidelines for weekend meetings at the school. **This does NOT include any event off Hickory's campus.** In order for your student to be able to participate in the weekend build days, this form must be filled out and signed by the parent/guardian.

1. Students are expected to only be in the robotic work space, or the restroom. Going anywhere else in the building is strictly forbidden, and grounds for suspension from the team.
2. Students are allowed to leave to get food. They may drive themselves or ride with someone else. Parents and students can establish their own rules as to who they can ride with and where they can go, as the school and the coaches are not responsible for enforcing those rules.
3. Students are expected to leave when the meeting is over. They are not to hangout in the parking lot or anywhere else on school grounds.
4. Parents should still be at the back parking lot 10-15 minutes before the end of the work day.

Parent/Guardian Signature: _____ Date: _____

Photo/Video Consent and Release Form

Student Name: _____

I hereby give permission for images of my child captured during Hickory High School's FIRST Robotics activities through video, photo, and digital images. I also give permission to allow for posting on the school's web page and other school related locations as well as on the FIRST Robotics webpage.

I waive any rights of compensation or ownership thereto:

Signature of Student Participant: _____ Date: _____

Name of Parent/Guardian (Please Print): _____

Parent/Guardian Signature: _____ Date: _____

Student Subgroup Selection

In order to be a full member of our team you will have to choose from the following

- 1) One Technical & one Non-technical Subgroup
- 2) Two Non-Technical Subgroups.

After joining the team, the student will be given a presentation on all the subgroups, and choose 2 options from each group. The leadership will select the best fit for the team.

Technical Subgroups:

Strategy - Researching past games, designing parts in CAD

Chassis - Robots Wheels, drivetrain, motors, chassis, superstructure

Actuators- Electrical, pneumatics, sensors

Programing - Code for the robot, researching new systems to implement

Non-technical

Media- Photo, video, web design, graphic design for shirts and paper products.

Outreach- Setting up events for our team to go to. Show and tells.

Awards-Research paper or sales pitch type reports / presentations .

Business/Safety- Keeping track of the team's finances, materials and equipment. Also, ensuring that machines are maintained and safety rules are followed.

Photo/Video Consent and Release Form

Student Name: _____

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I waive any rights of compensation or ownership thereto:

Signature of Student Participant: _____ Date: _____

Name of Parent/Guardian (Please Print): _____

Parent/Guardian Signature: _____ Date: _____