

# 2023-2024 Team Handbook



## PURPOSE

The purpose of this handbook is to provide guidance and to answer questions about the team, its purpose, and your responsibilities as a member or parent. Please read this information carefully to decide if you and your son/daughter will be able to follow the team rules, commit to the hours, and commit to the financial responsibilities required for participating in team functions and events. Please do not hesitate to contact any team mentor if you have questions.

## ABOUT FIRST & FRC

### FIRST

First, For Inspiration and Recognition of Science and Technology, is a non-profit organization dedicated to inspiring young people to be leaders and innovators in science and technology. Through programs such as FIRST Robotics Competition, students are encouraged to excel in the areas of science, technology, engineering, and mathematics. FIRST was founded in 1989 by Dean Kamen ((inventor of the Segway and the insulin pump) and has since become an international organization that has reached hundreds of thousands of students from elementary school through high school. The mission of FIRST is to inspire young people to be science and technology leaders, by engaging them in exciting Mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership. For more information, visit [www.firstinspires.org](http://www.firstinspires.org).

### FRC

First Robotics Competition (FRC) is FIRST's oldest robotics program. It is designed to provide a rigorous engineering challenge to high school students as well as teach leadership, collaboration, and project management. Over three thousand teams have anywhere from fewer than ten to over one hundred students with guidance and support from adult mentors. Each year, every FRC team builds a robot to compete in a game released in early January.

## Gracious Professionalism

As part of its mission to encourage student leadership and collaboration, FIRST promotes Gracious Professionalism as one of its core values in all levels of competition. Their website describes this ideal as follows: *"With Gracious Professionalism, fierce competition and mutual gain are not separate notions. Gracious Professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended."*

## Coopertition

FIRST also promotes the philosophy of Coopertition, which is described as *"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. It is teaching teammates. It is learning from Mentors. And it is managing and being managed. Coopertition means competing always, but assisting and enabling others when you can."*

## ABOUT THE TEAM

The Fishers HS Robotics Team (“5010” or “Tiger Dynasty”, referred to as “the Team” throughout) is a student team operating out of Fishers High School. The primary activity of the team is to create a competition-ready robot that solves the stated competition challenges. Each year, the parameters of the competition will change and students have roughly 6 weeks to create a design, build, and test it before the first event. The team currently competes in the FIRST Robotics Competition (FRC) using the designation “5010 Tiger Dynasty”. During the first half of the school year, students are trained on various robotics team functions and given an opportunity to learn multiple subject matter areas, such as controls, CAD, fabrication, project management, and more.

## GOALS

- The robotics team will empower student participants in engineering and leadership disciplines, which will set them up for future successes in their careers.
- The team will be student-organized and led as much as possible, with the teacher & parent mentors supporting the students and assisting in their continued development.
- The team will create a working robot that can compete in scheduled competitions. While everyone does like to win competitions, that is not our primary objective.

## SUCCESS METRICS

While a goal of any competition is often to win, the primary objective of the Fishers Robotics team is student development. Members of the team should be able to:

- Work together in a collaborative, fast-paced, student-lead environment
- Solve problems independently and without an adult mediator
- Identify areas that need work and volunteer to complete them
- Work as a cohesive team and share ideas in a constructive way
- Meet difficult deadlines and provide routine status updates on the progress of work
- Create and follow a project plan and adapt to challenges
- Understand safety protocols and how to operate equipment
- Feel confident taking on an internship or summer job with an engineering firm or similar

## Team History

Team 5010 was founded at FHS in 2012 and was composed of 12 seniors and 2 juniors and handful of mentors and parents. The first robot that was built for competition was built in 2013, "Hobbes1". The team has grown from around 14 students to now include nearly 40 students from Fishers High School.

## Past Achievements

Year	Event	Award
<b>2014</b>	<b>Boilermaker Regional</b>	<b>Rookie All Star Award</b>
<b>2014</b>	<b>Boilermaker Regional</b>	<b>Highest Rookie Seed Award</b>
2016	IN District Perry Meridian Event	Industrial Safety Award Sponsored by Underwriters Laboratories
2018	IN District Plainfield Event Sponsored by Toyota	Creativity Award Sponsored by Xerox
2018	IN District Tippecanoe Event	Creativity Award Sponsored by Xerox
2019	IN District Tippecanoe Event	Autonomous Award sponsored by Ford
2019	IN District Center Grove Event sponsored by Toyota	Quality Award Sponsored by Motorola Solutions Foundation
<b>2022</b>	<b>FIN District Tippecanoe Event</b>	<b>District Event Finalist</b>
2022	FIRST Indiana State Championship	Innovation in Control Award
2023	FIN District Princeton Event sponsored by Toyota	Team Sustainability Award
2023	FIN District Tippecanoe Event	Autonomous Award Sponsored by Ford
<b>2023</b>	<b>FIRST Indiana State Championship</b>	<b>District Championship Winner</b>

# JOINING THE TEAM

## Eligibility & Expectations

Team members in good standing must:

- Be a Fishers, Hamilton Southeastern High School student, or a student in the Hamilton Southeastern school district.
- Have no semester grades below C-
- Make a significant time commitment to the team, actively participating in meetings, workshops, and events. Commitment to the team increases substantially during the months of January through March (build season)
- Be reliable, on-time, prepared to work & clean up with a positive attitude, assist newer members, be responsive to mentors and other adult volunteers and assist with team administrative tasks.
- Complete all required and necessary registrations with the team, FIRST, FHS & HSE High Schools, and pay all required fees including the annual registration fee by September 27<sup>th</sup>.
- Must be willing to attend small projects or be able to take responsibility on projects.



## Student Time Expectations

Tiger Dynasty is about more than building the robot for six weeks out of the year; it's about taking part in all of the activities that help to make Tiger Dynasty an all-around STEM team in Fishers. Accordingly, the expectation is that team members will attend scheduled meetings, workshops, seminars, and outreach events throughout the entire year. The FIRST Season consists of:

- **Off Season (June-Dec)** – a time for students to participate in design exercises, tool training, participation in community events, and to determine if this team is right for them. This is also a time period when GRADES, dedication, and team performance are monitored closely to make sure each student is meeting the standards of the team. There will be an evaluation at the end of each semester that will cover each student's grades as well as the participation and activities of each individual student who wants to participate in that year's build and competition season.
- **Build Season (Jan -March)** - only team members who have completed all registration steps, paid their membership dues and completed a successful off season will be eligible to participate in build season. Build season begins in early January and lasts for 6 weeks. Work sessions take place 5 days a week including Saturdays and potentially school holidays. Students will be expected to participate in 75% of the work hours during build season. This time will be the busiest time during school and robotics. In order for students to maintain a reliable status on the team, they may go down to the CCA for 30 minutes for their free time. After this time, they then must either work with the team or leave for the day in order to focus on their homework. Members who are unreliable, have grades below a C-, and cause disruption/chaos to the team can and will be suspended from the team at any time.

- **Competition Season (March-April/May )** - Students are expected to attend at least one FIRST District event – in its entirety – each season. Students are strongly encouraged to travel to all events and competitions. Those students selected to be on the Drive Team are expected to attend ALL competitions in which the team participates. Students may miss one Friday from school for a competition and all students are required to arrange ahead of time with their teachers to make-up any work missed. Students who have attended at least 70% of the practices will qualify to attend events.

## Attendance Policy

Students will be responsible for logging their attendance at each meeting or build session by following the given instructions (paper/App). Each student will sign out with a mentor prior to leaving.

In order to attend competitions, a student must be present and active for 65% of all practices/meetings.

Students are required to notify team leadership about late arrivals and absences. You should contact your subteam lead AND mentor via email or Slack preferably 24 hours in advance or more. Longer absences should be communicated earlier.

Keep in mind being present for attendance is not simply being physically in the workshop or classroom. Students are marked present when they are attentive and productive during meeting time.

## Codes of Conduct

Gracious Professionalism, one of the founding principles of FIRST, is essential to team participation. It is a way of doing things that encourages high quality work, emphasizes the value of others, and respects individuals and the community. The following Code of Conduct describes standards of behavior that are applicable to all team members:

- Students will sign an agreement and follow the same rules as dictated by HSE Schools including those in regards to alcohol and chemical substances.
- Students will not violate the racial/religious/harassment/violence/hazing bylaws of HSE Schools.
- Students will behave in courteous and cooperative manner, especially when in public, visiting corporate offices, presenting to sponsors, and during outreach events and activities.
- Students will be respectful of others and behave in a way that does not endanger the health and safety of themselves or others.
- Students will be respectful of the facilities, tools, equipment, and all things being used by the team.
- Students shall not use profane, obscene, or vulgar language in written, gestured, or verbal form.
- Students will check communications regularly to stay current with all of their team responsibilities.

Violations of the Code of Conduct are subject to disciplinary action, to be determined by the team's lead mentors and HSE Administration. Disciplinary actions may include suspension from team activities, ineligibility to travel with the team, or removal from the team.

## Team Funding

Every year, our team must raise at least \$30,000 to design and build a competition-ready robot. Line items in our budget include FIRST registration fee and initial entry fee \$5,000, additional competition fees \$4,000 - \$9000 (if team continues to move forward in the competition), robot construction \$4,000 each, computer hardware/software \$1,000, team promotional items (banners, robot signage, giveaways, mascot, team spirit, fliers, etc.) and administrative costs (video, website fees, photocopies, postage, printing, travel, etc.)

We raise these funds each year through a variety of means including student membership dues, corporate sponsorships and other fundraising activities. All team members are expected to participate in our fundraising activities.

Students or families who help introduce the team to companies who will sponsor the team will have team registration fees reduced by half the amount sponsored.

## Team Dues

All students will pay \$250 per season to participate in Tiger Dynasty. This amount must be paid in full by September 27th, 2023 and includes a season specific t-shirt. Students who may require a scholarship for this expense may reach out to one of our teacher sponsors to discuss this option. This amount does not include meals or other travel expenses related to the competition season.

**Individual student fees are reduced by any half of any sponsorships raised for the team.**

## Team Meetings

Team meetings are held during the **off-season (June through December)** on Mondays and Wednesdays 5-7 PM. Any change in times will be communicated to you or reflected on the team calendar.

**Build Season meetings are recurring on the following schedule weekly:**

- Mondays & Tuesdays from 5-7 PM
- Wednesdays, and Fridays from 4-6 PM
- Saturdays from 10AM to 2 PM
- Occasional additional meetings as necessary

## Events

**Mandatory Events:**

- Kickoff: January 6th – the robotics team assembles for the FRC kickoff and spends the day reviewing the rules and requirements for the year's competition. The team begins the initial design phase for the robot and breaks into subteams to complete work. **NOTE: This is an all day event (roughly 10 AM to 5 PM)**

### Off-Season

- Indiana Robotics Invitational
- FROST
- Boiler Bot Battle
- Mini Bot Battle



### Competition Season

The competition season event calendar is released later in the year and is based on an application process. The Calendar will be updated in November or December with the formal team schedule. We will not know the date that the robot is due until the competition schedule has been released and we have been accepted to specific competitions.

### Communication

All members are required to have an active email address that is registered with the team. They must also check emails sent to this address daily. Messages will be communicated to members through Slack, emails, meetings, and newsletters. Parents should also provide an active email address to receive important parent-specific communications.

### Team Website & Calendar

The team website is located at [tigerdynasty.org](http://tigerdynasty.org). All team members are encouraged to subscribe to the team calendar from the pin within Slack.

### Slack

Members are required to join the team's Slack workspace. Accounts for each student are created as soon as they join the team. Slack is available as both a desktop and mobile app. Team announcements, group chats, and private messaging are all available through Slack, so it's a vital tool for team communication. **FAILURE TO CHECK SLACK IS NOT AN EXCUSE TO MISS REQUIRED DEADLINES OR ACTIVITIES.**

### Photography and Media

Tiger Dynasty uses photos, videos, and documents in a number of ways including, but not limited to:

- Team organization and planning
- Training new members
- Documentation
- Informational
- Sharing with team, sponsors, parents, and community members

### Media Consent Contract

For our team to promote itself within FIRST, to schools in our district, or to the general Fishers community, we ask that all team members understand that they consent to participation in interviews, the use of quotes, and being featured in photographs or videos taken by team members of FIRST. Team members must also agree to grant Tiger Dynasty the right to edit, use, and reuse said products for nonprofit purposes including use in print, on the internet, and all other forms of media. Additionally,

team members must agree to release Tiger Dynasty, FIRST, and their agents and employees from all claims, demands, and liabilities whatsoever in connection with the above.

## TRAVEL AND COMPETITION

### Eligibility

To be eligible to accompany the team to competition, a member should:

- Be academically eligible
- Follow the team's attendance policy.
- Have met the team's necessary expectations for participation in outreach events
- Complete the necessary permission forms prior to the event.

### Payment

Certain competitions require travel which will require payment from members for airfare, hotels, buses, meals, etc. If cost is an issue, please speak with the teacher sponsor regarding financial assistance. Any requested payment and permission forms should be turned in prior to the day of the competition.

Members who withdraw from a paid travel tournament will only be refunded if another member takes their spot.

### Load In/Out

Before every competition a request will be made for volunteers to assist the team in packing and loading the team's necessary tools, materials, and robot. Please keep in mind this may involve heavy lifting but anyone is welcome to help. Mentors will announce when load in/out times will be before each competition.

### Behavior

Please be aware that anytime you are wearing the Tiger Dynasty logo, you are representing the team, school, school district, and sponsors and are expected to behave in accordance with the rules outlined in this handbook as well as any codes of behavior expected from the HSE school district. At competition, what you say to another team member may be overheard by a judge, potential sponsor, or member of another team and reflect directly on Tiger Dynasty's reputation.

### During Competition

- Always be respectful of other teams, event volunteers, and parents.
- Stay with the group. If you need to go anywhere, let the appropriate student lead, chaperone or mentor know and find a reasonable time to do so. If you are needed and you are not present, it will reflect poorly on you.



- Stay on task and fulfill your role on the team. Making friends with students from other teams is highly encouraged, but while you are scouting or performing other competition team tasks, refrain from excessive socialization or use of personal electronics.

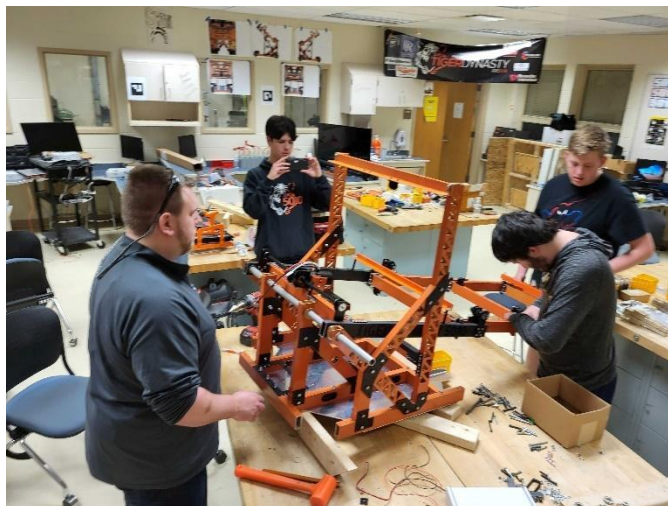
**Transportation**

Transportation options will be announced well in advance of each competition. Most often, the team members will be meeting a bus at door 19 at FHS early in the morning. Please plan to be with the team for the duration of the competition and stay with the team until the competition is over and the team has returned to FHS.

**Local Events**

Local competitions or outreach events will be communicated to you well in advance of the date. There will be a general call for volunteers and if you commit to an event or competition, it is expected that you will be there to help. There are roles to fill even if you are not comfortable with speaking to the public.

# FACILITIES – ROBOTICS LAB/WORKSHOP



There are many machines and tools that are hazardous when unsafe procedures are followed. In order to keep our members safe there are a number of safety rules that will be enforced. These are very serious and should be read thoroughly.

Students will be working not only with one another, but also with powerful machines, tools, and electronics. Everyone needs to understand how to properly use and manage the machines and make sure that tools can be easily found by everyone. Remember, use of team tools is a privilege not a right and safety is paramount.

## Safety Glasses

Safety glasses are provided for each team member. Consequences for being in the workshop without safety glasses will be as follows:

- No safety glasses 1<sup>st</sup> and 2<sup>nd</sup> offense – Warning from Safety Captain
- No safety glasses 3<sup>rd</sup> offense – Workshop suspension for the day
- No safety glasses 4<sup>th</sup> offense – Workshop suspension for a week
- No safety glasses 5<sup>th</sup> offense or in workshop during suspension - No access to workshop for 2 weeks.

## Workshop Rules

- No member is ever to work without a mentor or teacher sponsor on site.
- Food and drink is not allowed inside the workshop.
- Loose hair and long or loose clothing must either be tied back or removed before a member is permitted to use any machine tools. Close-toed shoes must be worn in the workshop.
- Tools in our workshop are placed in specific places. If you don't know where something goes, then please ask someone that does.
- Leaving tools out or putting in incorrect location will result in additional training. If continued, the member may not be allowed to enter the workshop.
- It is UNACCEPTABLE to constantly leave tools out or not cleaning up. If continued, there will be a removal from the workshop.

- Purposeful chaos will result in removal from the workshop. Subteam Leads will have full authority of deciding whether or not something was purposeful with no exceptions.
- Unsafe machine use will result in IMMEDIATE workshop removal and discussion with a mentor. Mentors will determine consequences depending on how the machine was used.
- Theft from the workshop (tools or other members possessions) will result in removal from the team and referred to the Dean's office for additional punishment. The offending member will not be allowed to rejoin the team.
- Horseplay is not tolerated and will result in IMMEDIATE removal from the workshop.
- Intentional harm to others or yourself will result in IMMEDIATE removal from the team and referral to the Dean's office
- Teacher Sponsors and mentors always have the final word in any situation where safety is at stake.



# 2023-2024 TEAM ORGANIZATION



## Steering Committee

The Steering Committee of Tiger Dynasty consists of a mix of mentors and student leadership. The Steering Committee meets on a regular basis throughout the year, both in off-season and build/competition seasons. The mentors and student leadership coordinate upcoming events, plans for the next few weeks, and address any issues or improvements for the team.

## Mentors

Our mentors consist of a group of industry professionals, teachers, parents, and community members. Most mentor one or two subteams and are here to teach, guide, and lead alongside the students. Mentors are integral to the success of our team.

## Student Leadership

Student leadership consists of all subteam leads. Student leadership meets regularly with mentors in the Steering Committee and are expected to **lead by example**.

## Student Leadership Selection

Student leadership (subteam leads) are chosen by core leadership based on a student's application and interview process. Other factors are taken into consideration including the outgoing senior's impressions of the year-long work of the student. After all candidates have been interviewed, core leadership will discuss and select a suitable lead for each leadership position based on many factors, including:

- Past experience
- Dedication and contributions to the team
- Technical competency, where applicable
- Leadership, management, and organizational skills
- Ability to complete duties listed in the position's job description
- Interview performance and substance
- Nominations submitted by past subteam leads, fellow team members, and mentors

Students may only hold one leadership position at a time, but may be members of any other subteam.

## **LEADERSHIP RULES & RESPONSIBILITIES**

All subteam student leads are expected to:

- Participate actively in Slack and Trello, including assigning tasks to team members following up on assignments for meaningful progress, reassigning tasks as needed, and delegating as needed
- Make reports to Leads channel and team stand-up meetings regarding subteam progress
- Participate in planning and attending training and enrichment programs for the subteam, as well as assist in the meaningful training of team members in both off-season and build season.
- Subteam leads are expected to attend at least three-quarters of build season meetings/sessions.
- Understand that build season posted schedules are often well short of the needed time commitment. In other words, leads are expected to participate outside of the posted session hours routinely.
- Understand that the team should be their primary focus for after school extracurriculars.
- Maintain cleanliness of entire workshop and classroom areas and motivating team members to assist.
- Coordinate purchase needs appropriately and accurately.
- Oversee responsibilities for the subteam's packing list and packing duties
- Update/create documentation for subteam standards and best practices as well as documentation of subteams build season progress on a weekly basis.
- Participate in outreach needs, including but not limited to talking to sponsors and community members, researching opportunities for outreach, and actively scouting new team members.
- Prepare subteam for judge interviews and pit presentations at competitions as necessary.
- Prepare, delegate, or oversee subteam social media content in collaboration with the Business team.
- Assist in logistical planning for outreach, competitions and team activities.
- Collaborate on grant applications and award submissions.
- Maintain safety materials inventory and collaborate with mentors to purchase safety equipment as needed
- Be respectful of all grade/skill levels and take team culture and cohesiveness seriously.

## **Subteams**

### **Business**

The Business team is the most business-minded of the teams. The primary goal is to ensure the team has the funds needed for the season and to improve team visibility in the school and surrounding area. This group maintains the budget and coordinates with sponsors, including but not limited to: sponsor recruitment, sponsor level benefits (such as tshirt, banner, and robot logos), as well as to help organize and implement related projects. Also maintains the team webpage and social media accounts including the videography and video editing associated with these posts. The Business team is also in charge of organizing community outreach & sponsorship events.

### **Business Subteam Lead Job Description**

#### **Duties and Expectations**

- Oversee operations of the team in general and the business subteams in particular (Finance, Media, Outreach)
- Coordinate social media campaigns, service endeavors, recruiting activities, newsletters, and outreach events
- Maintain sponsorship engagement and information
- Coordinate awards prep/submission, grant applications, and fundraising
- Assist Coach in travel arrangements for outreach events, district competitions, and Worlds
- Maintain parent engagement through emails, newsletters, etc.
- Create, monitor, maintain, and interpret budgets, financial reports, and business plan
- Assist in the administration of Badge Tier testing
- Maintain updated information on the website.

#### **Expectations:**

- Strict maintenance of confidentiality regarding team documentation, budgets, finance, and protected personal information
- Maintain positive working relationships with internal and external team members, partners, stakeholders and parents
- Work effectively with cross-functional teams; able to adapt to diverse interpersonal styles
- Attention to detail

#### **Qualifications:**

- Ability to actively listen; understand one's audience, and communicate ideas and concepts, either written or verbal in a clear, timely and appropriate manner
- Exceptional self-management and organizational skills are essential. Must be able to organize, prioritize, and keep track of multiple tasks/projects simultaneously
- Social media content curation experience including creative concepting and strategic planning for social media campaigns
- Knowledge of key tools including Facebook, Instagram, Twitter, TikTok, Photoshop, Slack, Trello, etc
- Some public speaking, public relations, customer service, or public service experience is helpful but not required

### **CAD (Computer Aided Design) Team**

CAD, or Computer Aided Design, takes the functional ideas of the team and creates a "blueprint" of the robot. That design is then used in the fabrication and assembly of the robot, with team members collaborating with the Controls, Fabrication, and Programming teams for the best possible design. Team members create layout drawings for fabrication & create the files for CNC and other machine processes. CAD must also consider the constraints of the competition rules when designing.

#### **CAD Subteam Lead Job Description**

##### **Duties:**

- Participate in off-season training classes (likely online)
- Serve as design lead for an off-season robot that includes a fully fleshed out CAD plan for a robot that approaches the current year's game differently
- Oversee design documents and maintain cleanliness and organization
- Assist in the administration of Badge Tier testing

- Actively train new and returning members

#### **Expectations and Qualifications:**

- At least one high school class that includes CAD training
- Previous design experience preferred but not required

### **Controls Team**

The Controls team learns to properly design and run various different types of connections to robot electrical and pneumatic components involved in actuating movement, sensing changes, communication networks and power bus management and be able to diagnose issues with those connections and components, including motors, controllers, pneumatic equipment and electronic components such as the radio, PDH, roborio, PH, VCM, etc. Controls works closely with CAD, Fabrication, and Programming teams during design & debugging.

#### **Controls Subteam Lead Job Description**

##### **Duties:**

- Draft an electrical schematic drawing on paper or CAD with specific details of the planned build. Maintain drawing throughout the build with changes. Work with CAD to digitize drawing as needed
- Maintain organization with the controls storage area
- Oversee battery testing and usage documentation
- Assist in the administration of Badge Tier testing
- Member training and education.

##### **Expectations:**

- Know and enforce usage requirements for various components
- Know and enforce proper tool usage for component assembly

##### **Qualifications:**

- Familiarity with various types of robot components and their electrical needs and status indicators
- Previous Controls team experience preferred but not required

### **Fabrication/Field Team**

Team members learn the use of tools within the workshop including Vertical mill, CNC router, drill press, metal brake, band saw, grinders, sanders, hand tools. The fabrication team will create pieces/parts necessary to physically construct components of the robot and work closely with the CAD, Programming, and Controls teams during design and assembly. Team members also create Game pieces necessary for practice and robot refinement. Components are to be made following game manual guidelines. Field will also work on Workshop improvements such as tool, equipment, material storage, pit components, and maintain the team trailer.

#### **Fabrication/Field Subteam Lead Job Description**

##### **Duties and Expectations:**

- Actively train new and returning members on proper equipment usage – “Now” is always the correct time to address improper methods and reinforce proper usage
- Be mindful of the safety of yourself and others in the workshop
- Assist in the administration of Badge Tier testing

- Routinely ensure the workshop and storage closets are neat, organized, and clean
- Alert mentors of equipment not working properly as soon as possible so repairs can be made

**Qualifications:**

- Demonstrate a good understanding of how to use all pieces of equipment in the shop safely and effectively
- Ability to interpret CAD and create accurate drawing files
- At least one previous season on the Fabrication Team

**Programming Team**

The programming team will learn Java, robotics and component specific coding language and techniques in order to design and write robot code, as well as configure robot operations and diagnose issues with code and the components it operates. The Programming team will work closely with the CAD, Fabrication, Controls, and Drive team during design, assembly, and testing.

**Programming Subteam Lead Job Description****Duties:**

- Ensure physical programming resources are organized
  - (code pushed, cords/electronics & cart put away, laptops charged, etc)
- Ensure everyone gets a chance to contribute and guide new code development
- Stay familiar with game-specific aspects of the competition code base
- Work with mentors & strategy team on game-specific competition code design & strategy approach
- Document a code-visual schematic to the Build-Season Robot folder that focuses on game-specific code
- Assist in the administration and refinement of Badge Tier training and testing

**Expectations:**

- Building knowledge of Java or similar language and add Java ASAP
- Building knowledge of WPILib APIs and dedicate time to learning
- Building knowledge of programming tools/apps used by spending time familiarizing yourself with them

**Qualifications:**

- Must have been on the team for 1 year
- Must have contributed to build season code
- Must be very familiar with at least one programming language already.
  - Ability to demo/explain example projects is helpful.

**Strategy Team**

The strategy team is responsible for the gameplan of the robotics team. Their priorities include scouting other teams, preparing the drive team for their next match, and achieving the strategic goals during competitions. They are also in charge of creating the pick lists for alliance selection to craft the best alliance possible for the playoff rounds based on quantifiable data that is collected during the competition.

**Strategy Subteam Lead Job Description****Duties**

- Analyzes the season's game to determine best strategies
- Prepares members with the tools necessary for scouting at competition, both in training and in technology
- At competitions, lead the collection, organization, and analysis of the data for matches played
- Work with the drive coach in strategy meetings for matches and creating alliance selection pick list
- Help create and facilitate drive team tryouts and assist in selection
- Organize drive practices and keep them on track while coordinating with the drive coach

**Expectations**

- Must work well under pressure and be able to work well with multiple personality types while under pressure
- Organizational and analytical thinking are a must
- Be able to work with multiple internal and external teams simultaneously for desired best outcomes

**Qualifications**

- Must have attended at least 2 competitions

# PARENT RESPONSIBILITIES

Parent support will be critical this year as we seek to grow our team's success. The following are expectations FRC 5010 has for the parents of student team members:

- Provide timely transportation for their child, making sure that they are on time and ready to participate. It is important that students arrive on time for events. If a student must come late, they should let a mentor or student leader know ahead of time. Some events, like when we meet at the school to take a bus to competition, cannot be delayed. If your child is late, they will miss the bus.
- **Complete all of the registration steps and pay the membership dues by September 27th.** Only students in good standing will participate in the build season.
- **Respect the team, its mentors and its sponsors.** It is important that parents are respectful of the team and its goals. Collectively the team's mentors spend hundreds of hours with the team and while you may not always agree with some of their decisions, please trust that they have the best interests of your child and the team in mind.
- Support all fundraising activities. Seek sponsorship from your employers or other contacts that you may have in the community. Anything helps!

## Other Ways Parents Can Support Tiger Dynasty Include:

- **Mentoring** – Tiger dynasty needs mentors to help it operate. Our current needs are for mentors to help with CAD (Computer Aided Design), Fabrication/Carpentry, and Machining/CNC. We of course will welcome any mentoring assistance you may have to give.
- **Support FRC 5010 at competitions** - This can be in many ways including picking up lunch, cheering on the team, running errands and, of course, showing your Tiger Stripes!
- **Provide carpooling support** - There will be times when we ask for parents to drive students to events or to Makers Playground.
- During build season we meet just about every day, often until later in the evening. **Sending in water, snacks or coordinating a team dinner is always welcome.**
- When first joining Tiger Dynasty your student will find new people, new things, new rules, etc. All this can be pretty intimidating to a rookie member. Like in school, Tiger Dynasty is going to push students out of their comfort zone from time to time, it's important that you encourage your child to embrace these new experiences rather than run from them.

The support you provide to your student is critical to giving them the tools to be active and engaged members in Tiger Dynasty. FIRST and Tiger Dynasty can be a highly rewarding experience with lots of lifelong benefits. Thank you for supporting this special group of students and mentors!



# CONTACT INFORMATION

## Teacher Sponsor

Jeff Fronius, [jfronius@hse.k12.in.us](mailto:jfronius@hse.k12.in.us)

## Mentors

### Programming:

Curt Rozeboom, [cprozeboom@gmail.com](mailto:cprozeboom@gmail.com)

Steve Chrisman, [ss.chrisman@comcast.net](mailto:ss.chrisman@comcast.net)

### CAD

Kaleb Cole, [Kalebc95@gmail.com](mailto:Kalebc95@gmail.com)

### Fabrication/Field

Jeremy Stone, [jstone@capitolconstruction.com](mailto:jstone@capitolconstruction.com)

### Controls

Ryan Post, [rpostwvu@gmail.com](mailto:rpostwvu@gmail.com)

Jim Mailloux, [mailloux\\_j@yahoo.com](mailto:mailloux_j@yahoo.com)

### Strategy

RJ Martin, [rjmartin1995@gmail.com](mailto:rjmartin1995@gmail.com)

### Business

Monica Post, [mlanzy@gmail.com](mailto:mlanzy@gmail.com)

Amelia Stone, [stone\\_amelia\\_celeste@lilly.com](mailto:stone_amelia_celeste@lilly.com)

## Final Notes

We expect all team members to follow and understand all rules and policies in this handbook. The Steering Committee reserves the right to set consequences for major violations and consider confidential information in decisions. The Steering Committee may change the handbook during the season. If this occurs, the team will be notified of the modifications promptly.

Lastly, the Steering Committee encourages all students to raise concerns about the team directly with them in person or through email. The students and team climate are our first priority and we strive to do all we can to support our team goals. We hope all of our members can have a part in that process. Thank you and we look forward to a wonderful season with you!

## Family Acknowledgement of FRC 5010 Team Member Expectations

FRC 5010 Robotics is a team; it requires rigorous participation and a serious commitment. This is not a team for casual participants. A student wishing to travel/participate in any competition must meet ALL expectations. Students who are not in compliance with the expectation outlined in the team handbook will not be eligible to participate in the FRC Competition Season. Parents and Students please read the handbook and sign below together to ensure that all parties are aware of the requirements. *This sheet must be returned with all blanks completed correctly before **September 27th**, 2023.*

I have read and agree to participation expectations for team members of Tiger Dynasty Robotics involving the time and activity commitment. I agree to the cost expectations of a team member of Tiger Dynasty Robotics. Specifically, each student is required to pay team dues in the amount of \$250 by **September 27th**, 2023. I understand that competition expenses including any potential travel or meal expenses are not covered by the dues and will be an additional expense.

I have read and agree to all expectations in the Team Handbook.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Student Printed Name

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Parent Printed Name

\_\_\_\_\_  
Date

Student T-Shirt size \_\_\_\_\_

Parent questions or comments or offers to help the team: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## WORKSHOP ACCESS AGREEMENT FOR 5010 TIGER DYNASTY

### 1. ACCESS.

The Parent/Guardian hereby agrees to let his/her child gain access to the workshop of 5010 Tiger Dynasty. The Parent/Guardian hereby acknowledges that giving access to the workshop means that his/her child will get access to machinery that could cause various injuries to the child. The Parent/Guardian hereby acknowledges 5010 Tiger Dynasty will not be responsible for any injuries caused within the team.

### 2. TERM.

This Agreement shall be effective as of the date signed by the parents and shall extend until the beginning of the next school year, as of which this Agreement will need to be renewed.

### 3. TRAINING.

All students will be trained to use the tools and machinery before gaining full access, and they will be taught about the safe operating procedures of each machine. Students who don't show proper care during training can be denied their access to tools or machines until proper care is sufficiently shown.

### 4. SOCIAL MEDIA RELEASE

For our team to promote itself within FIRST, to schools in our district, or to the general Fishers community, we ask that all team members understand that they consent to participation in interviews, the use of quotes, and being featured in photographs or videos taken by team members of FIRST. Team members must also agree to grant Tiger Dynasty the right to edit, use, and reuse said products for nonprofit purposes including use in print, on the internet, and all other forms of media. Additionally, team members must agree to release Tiger Dynasty, FIRST, and their agents and employees from all claims, demands, and liabilities whatsoever in connection with the above.

[Parent/Guardian]

Date: \_\_\_\_\_

Signed: \_\_\_\_\_

Name: \_\_\_\_\_  
\_\_\_\_\_

[Student]

Date: \_\_\_\_\_

Signed: \_\_\_\_\_

Name: \_\_\_\_\_  
\_\_\_\_\_



## Family Information Sheet

### Student

Name \_\_\_\_\_

Year in School \_\_\_\_\_

Preferred Email \_\_\_\_\_

Cell Phone \_\_\_\_\_

Food Restrictions (allergies, sensitivities, religious considerations)

\_\_\_\_\_

\_\_\_\_\_

### Parent 1

Name \_\_\_\_\_

Preferred Email \_\_\_\_\_

Cell Phone \_\_\_\_\_

Employer \_\_\_\_\_

### Parent 2

Name \_\_\_\_\_

Preferred Email \_\_\_\_\_

Cell Phone \_\_\_\_\_

Employer \_\_\_\_\_