



PEARADOX

Student handbook
Fall 2019

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Quick notes

When the word mentor is used - it is used to describe both teachers and mentors.

When the word “industrial mentor” is used, it is used to describe our volunteers that are not employed by the school (and may not have a child on the team either).

The Aug 2019 version is the first revision of this handbook. It is expected that there are improvements, clarifications, as well as spelling and grammar corrections that are needed. Please contact one of the lead mentors with any concerns you may have. The intent is that this will be modified/improved at the beginning of any spring or fall semester.

The Team

Pearadox competes in the FIRST (For Inspiration and Recognition of Science and Technology) Robotics Competition, or FRC. While building a robot provides a great core for the team, we are so much more than that. All Pearadox team members are expected to help contribute to our mission of promoting STEAM in the local and greater community, and learn life skills about how to promote our team, fundraise/find sponsorship, and effectively communicate what we do and who we are. This means team members may be involved with the obvious technical side of the team, or with some non-obvious roles such as graphical design, videography, project management, public speaking and more.

The team is composed of students from Turner (where we primarily meet), Dawson, and Pearland High School. The team is mentored by a mix of adult professionals, many of whom are engineers with several years of experience in FIRST. Many are even alumni of FIRST teams themselves.

This handbook is provided to help students and parents understand the program and the roles and responsibilities of team members. Please review the information very carefully. If you think something is missing, needs clarification, or is incorrect, do not hesitate to ask. Students and parents should sign the last page of this document and provide to a teacher or lead mentor indicating you understand the content. The latest version of this handbook can be found at Pearadox5414.weebly.com/Handbook.html

Team Contact Information

Lead teachers and mentors:

- Dr Jeff Myers: Turner High School – myersjc@pearlandisd.org
- John Bailey: Dawson High School – baileyjw@pearlandisd.org
- Garret Dyer: Pearland High School – dycrg@pearlandisd.org
- Andrew Hartnett: Industrial mentor – pearlandfrc@gmail.com
- Debbie Weaver: Booster Club President - debwvr@yahoo.com

Who are the mentors?

We have teacher mentors (one from Dawson, two from Turner, and one from Pearland) as well as mentors who are industry and FRC experts. These people are volunteers who dedicate many hours to working with team members and work (or have worked) for companies such as Jacobs, NASA, Shell, and PinnacleART. We are always looking for help with mentoring the team. We can use adults that can help mentor kids in business, marketing, imagery, programming, engineering, and even things outside of that. Please let one of the lead mentors know if you are interested.

How to join

While there is currently not an application process, in the future there may be. No student that shows a genuine interest in learning and joining the team will be rejected. Applications will be rejected only if there are concerns about a student's ability to follow through on their commitment and/or if joining the team will be detrimental to the student. If you are rejected due to these concerns, we encourage reapplying the following year.

All students and parents (rookie and veterans) are expected to fill out the registration survey annually on the team website (pearadox5414.weebly.com/join.html). This allows us to collect important information, such as parent contact information or information about students (food restrictions, physical or learning disabilities).

Students should have and maintain their own Z.87 safety glasses. Please note the safety goggles used in chemistry class meet a different standard and are not acceptable for use for Pearadox.

Eligibility

In order to be eligible to be on Pearadox, students must be attending either Dawson High School, Pearland High School, or Turner College & Career High School. Rising freshman are permitted during the summer prior to their freshman year.

Students are expected to maintain a good academic status. Issues with teachers or GPA can be grounds for temporary suspension or dismissal from the team. Pearadox will adopt the basics of UIL No Pass, No Play rules – if a student is failing a class, they should not be attending Pearadox meetings or events and should notify a Pearadox teacher of how they will improve their grade.

Varsity Eligibility

To qualify for a varsity letter in robotics, students need to accumulate 100 points total from the following things during their years with the team:

- Actively participate at a regional/district qualifying competition (5 points)
- Actively participate at the state FRC championship competition (10 points)
- Actively participate at the FRC Worlds Championship (20 points)
- Logging at least 40 hours for community outreach event/and or peer mentoring, which falls outside of regular school day (25 points)
- Logging at least 40 hours of attendance at meetings outside of the regular school day, during school year (25 points)

If a student believes they meet these requirements and wish to get a varsity letter, they should work with the teacher at their school about how to submit it. Students can provide proof of their community outreach hours by filling out TIGERs on the team website, and can get proof of their attendance hours from the sign in app with a mentors assistance.

Team expectations

Attendance

During the summer and fall, we usually meet a limited number of times per week to support training, demonstrations, development, and off season builds. Students should be making a consistent effort to participate in what they can during this time.

It is the students responsibility to be aware of the calendar. Usually a Fall, Spring, and Summer schedule are released and posted to the website (pearadox5414.weebly.com/calendar.html) and uploaded to google calendar. Updates via slack to the calendar (such as cancelations or extensions) take precedence.

During the build and competition season (Jan-April), a high attendance percentage is expected (target approximately 80% or more of meeting hours - approximately 16 hrs/week). Students priorities should be SELF -> FAMILY -> SCHOOL -> ROBOTICS. Students juggling additional spring extra-curriculars during this time will likely have to figure out what they wish to prioritize long-term.

Students will typically get out what they get in, meaning just attending meetings isn't enough. Students should work hard to be engaged in meetings. In some meetings this may mean more observing or independent research of a topic. We have a large team, and a limited number of volunteers. Students who are persistent and can make progress on a task with general guidance from mentors are the ones that become key personnel during competitions. Additionally students that don't "wait" for a new task are very much appreciated. If you finish a task, it's important to review the job, determine if there are possible improvements, and bring those things up with a mentor to continue development. Asking "I was thinking I could work on task A, B, or C unless there's something else you'd like for me to work on" is a much better interaction with a mentor than "I don't know what to do".

Behavior

There are many expects to the team that require careful thought and maturity – especially due to safety concerns.

Additionally, students are expected to exemplify the FIRST term Gracious Professionalism at all time, both individually and as a team culture (<https://www.firstinspires.org/about/vision-and-mission>). This means that students should expect high-quality work from themselves as well as respect and value ALL other aspects of the team and team members.

Team members are expected to encourage and nurture a team culture that is positive, encouraging, strives for success at the highest level, and respectful of all others (including those not on our team).

Communication

Major updates (such as information about upcoming competitions) are sent out to any parent that have completed the parent registration survey, and we'd also use this information to contact parents in case of an emergency. Students and parent emails from the registration are also used to invite students to the team slack. This makes it of utmost importance to complete the parent AND student registrations.

If not already, students should begin to learn to be independent while on Pearadox. While the teachers and mentors will absolutely field questions from parents, it removes an opportunity for a student to show their own initiative to a teacher or mentor. It is the students responsibility to monitor slack for announcements regarding meetings and ensuring paperwork is complete.

All students should join the team slack and I use the email from the student registration survey to add them. Slack is the primary way that the team communicates with one another and may be installed as an app on their phone or be checked by logging in at pearadox5414.slack.com on a computer (the desktop app/webpage is much more user friendly/capable, but the mobile app is much more convenient). All students by default will be added as full members to the #general, #announcements, #usingslack channels. There are SEVERAL (perhaps too many) other channels that full members can join or leave freely – but they should check the announcements and general channels frequently. Examples would be channels about building an off season prototype, scouting, media, etc.

Additionally slack is used to collect feedback from students (such as polls about food or attendance). If a student does not have access to the internet at home, they should coordinate with a friend to make sure they get important updates.

Any parents are optionally able to join the team slack as well, and the email from the parent registration survey will be used to add them. By default, parents are added as "limited members" to the #announcements, #general, #usingslack, and #parents channel. This keeps any notifications that you may get to a minimum, and I can add or remove you from

channels as desired. If desired, I can also change you to a full member so you can add and leave channels however you like, but for most parents this is more of a technological challenge than desired and of little benefit. The #parents channel in particular can be a great way to get quick input/feedback, and I will occasionally post low-priority requests in there.

Google calendar

The team attempts to keep a google calendar up to date. Additionally, typically by the beginning of each semester and the summer, the team releases a “one-pager” summary of meetings. Be sure to monitor the announcements channel of slack however, as that will be the most up to date.

Team Resources

Use of team resources (tools, materials, electronics, etc) are only to be used for team related activities. If a student wishes to use a team resource for any reason outside of a FIRST related activity, it must have prior written approval from a mentor.

It is expected that through years of abuse by inexperienced high school students, that some tools/parts will break. Failure and iteration is an important part of learning and improving. Students should notify a lead mentor immediately if there’s an issue. Additionally, there’s a “Purchase Request Form” available to students - and students should fill out the form if there’s a tool, part, etc that is needed for the team.

In addition to the restriction of only being used for team purposes, team electronics fall under the same acceptable-use policy as school IT resources. Students caught playing games or using team resources in an unacceptable way may find themselves being disciplined by the district as well as by the team.

Team laptops must be put away in the cabinet and locked (and plugged in!) at the end of each meeting. If you were using any team laptop, please ensure that you put it away! If you leave early, either put the laptop away or verbally ensure with whoever is taking it that they are putting it away.

School laptops (from the laptop cart) must be signed out and signed back in every meeting. Students should ensure that the number laptop matches the number where it’s being put away and charged. If any laptop is missing from the laptop cart at the beginning of the meeting, it is to be brought up and logged with a teacher prior to any student taking any school laptop.

T.I.G.E.R.s (Team Improvement, Growth, and Education Records)

It is expected that students fill out TIGERs for any applicable event. If they do something to help improve, grow, or educate the Pearadox family (ie all the Pearland ISD Robotics teams), the local or greater community about STEAM, FIRST, or Pearadox - it should be logged. It can be logged at pearadox5414.weebly.com/TIGERs.html. This quick and simple form allows us to track the awesome things that we do - it provides a documented history. This is especially useful for our chairmans team and judge speakers to talk about our impact. Additionally, while doing this to improve the team, grow Pearland ISD Robotics, or educate the community results in a higher Return on Investment for all of our mentors volunteering their time and corporate sponsors donating substantial amounts of money. If a student hasn’t not completed a TIGER, it means they have not contributed to the team in a measurable way and will not be attending competitions.

Mentoring hours

It is expected that all students spend at least 5 hrs volunteering in a way that helps improve the robotics programs in Pearland ISD. The middle schools have FIRST Lego League teams, and the Jr Highs have FIRST Tech Challenge teams. By giving back and mentoring those teams, students on Pearadox help those teams be more successful, and build excitement for them to be on Pearadox. Additionally, Pearland Jr High West hosts the FTC competitions and needs volunteers for their events. It is strongly recommended that students earn these hours in the fall rather than try to do

this during the spring. Additionally, for students mentoring the middle school or jr high teams, it is strongly encouraged that they attend multiple weeks/meetings in a row. The teachers of those programs find that much more helpful as they can help the younger students see a task through completion.

Travel

Traveling with the team for competitions is a privilege for Pearadox students that needs to be earned. We typically try to take as many students as we can to the local competitions that don't require hotels. Students are able to earn the ability to travel with their team by being engaged in meetings and having a high attendance record. Students that are exceptionally engaged and dependable for the time they are there can make up for a lower attendance record if there's a mentor or teacher that particularly thinks they bring a unique value to the competition. A student with even perfect attendance is not guaranteed a spot in the travel team if they are any concerns with the students ability to be engaged, dependable, or respectful during competition.

There are various important tasks to be completed during competitions. There will be a drive team that is expected to be able to attend the full duration of every competition attended. They need to have a thorough understanding of the game rules, strategy, and technical aspects of the robot (especially for repair). They need the ability to work well and be respectful towards others, and exhibit grace under pressure. Additionally, there will be some students in the "pit", to either do maintenance or repairs on the robot, to talk to other teams or judges, or perhaps to capture pictures and video. If a student is not expected to be in the pits or on drive team, they are expected to remain in the stands with the team through the end of the competition (including the awards ceremony). While in the stands, team members should:

- Pay attention to matches
- Cheer for the team during our matches
- Scout when asked (and take the job very seriously as team success depends on it)
- Get permission for taking breaks for food or other reason
- Be present for *all* team matches
- Remove all trash
- Exhibit Gracious Professionalism for all other teams and audience members. This means there is no booing or statements like "that team sucks"

Sleeping, disruptive behavior, or wandering will not be tolerated. Judges and volunteers can (and are) watching any and all interactions, and a team losing an award due to stand behavior is a thing known to have happened. Poor behavior could result in the team missing out on a well deserved award, a parent or legal guardian being required to pick up a student, or dismissal of a student from the team.

For students in relationships (whether with a student on our team or another), excessive public displays of affection are not allowed and couples should not be alone during any team activity or event. Students must remain with the team for the duration of the event and are not to leave the team for any reason during the event.

Dress code

For all team meetings, ALL students are expected to have their own Z.87 safety glasses. All students are also expected to wear closed toe shoes at all times. For students planning to work on the robot or with tools:

- Jeans are recommended but not required and shorts are strongly discouraged
- Loose articles of clothing and jewelry (including watches) are never to be worn while doing any work around the robot or machinery.
- Long hair must be able to be pulled back into a ponytail or bun when using power tools or machinery.
- Long sleeves should always be rolled up above the elbows
- If a mentor tells you to do something for safety (such as remove a jacket or jewelry), a student is expected to do it without complaining

Even students not planning on working directly with the robot or tools should wear safety glasses and closed toe shoes because they will at times still be in the same environment. Students should take good care of their safety glasses, because complaints about scratches is the number one reason students complain about wearing them.

At competitions, students are expected to wear the appropriate team shirt. This is typically the grey shirt the first day, the year-specific shirt the second day, and a polo the third day. For two day events, we will typically wear the year-specific shirt and polo.

Events & Competitions

Competitions are a board approved activity, so they will not be counted as absent. Students are expected to notify their teachers before they leave and are supposed to complete any assignments or tests before they leave. Each school has a Pearadox teacher, so if your child is marked absent for some reason, they should contact his or her campus teacher to have the attendance issue fixed.

At competitions, all members are constantly representing the team. They should have the team logo or similar as a prominent part of their attire, via a team shirt, team hoodie, or team hat. This helps our team find each other in a large crowd.

Meals will be provided (as covered in an email sent out prior to the competition), but your child may wish to bring money for snacks, drinks, or purchasing FIRST/other team attire. They may also wish to pack a portable charger as some venues have poor reception and can drain battery power quickly, with few outlets available.

As students become more engaged with the FIRST community, they may find they desire to trade team apparel with other teams. This is allowed and encouraged, but team members will have to purchase additional items to trade (ie, sometimes students will trade a generic Pearadox shirt for a t-shirt from another team that they like). These traded team t-shirts are great for team meetings as well.

Before competition there are three forms that need to be filled out. A FIRST Robotics Competition Consent and Release (not needed if you have signed your students up in STIMS), a FIRST in Texas Consent and Release form (always required), and a district field trip permission form. If required, an alternate transportation form can also be turned if a parent needs to take their student to the competition or pick them up from the competition. All of these forms can be found at www.pearadox5414.weebly.com/forms.html.

Competitions are long, stressful days. Students are expected to exhibit Gracious Professionalism and respect. If the team is staying in a hotel, they are not to bring gaming systems, and are to be in their rooms by the designated curfew time.

If any student has a behavior issue while at competition, they will need to have a parent or legal guardian pick them up at their own cost.

Outside of the team

If a student is in a FIRST related online form, or in a public space wearing a team shirt (even school) – they are representing our team. Make us proud by behaving in an appropriate manner while representing the team. Any action taken while representing a team will be treated the same as if it were in Turner.

Shop Rules and privileges

Parents should not drop off a student and leave without ensuring that mentors are present. Additionally, the team does our best to end our meetings on time, and expect students to be picked up at the meeting end time. For days that a meeting is extended to finish a task, it is expected that some students will need to still leave at the scheduled end-time as we do not want to keep parents waiting.

We typically end the meeting with some cleaning. If you arrive early to pick up your kid, or we are running a few minutes late, please be respectful to the team members that are cleaning by not having your student miss this shared team task.

All students should sign in upon arrival and sign out when leaving. It is the students responsibility to ensure they do this, as mentors will not go in to add hours students forgot to sign in. A student that leaves without signing out will have their hours cleared for the day, meaning they do not get credit for that day.

Safety violations should be brought up and discussed with a teacher and mentor, whether an injury occurs or not. This isn't get anyone in trouble, this is to make sure that we improve our safety process and learn from all events.

In the event of an emergency evacuation, students should plan to meet in the parking lot directly out the main robotics room.

Parent roles

Parents/guardians are responsible to inform teachers and provide support for their students who require specialized medical, learning, behavioral, or dietary care. Our industrial mentors and parent chaperones, while great and will make every effort to accommodate, are NOT equipped to monitor or manage medical conditions, treatments, or strict dietary restrictions. Parents whose students have specialized needs are responsible for their care during team events or official functions. This allows all volunteers (parents and industry professionals) to focus on the security, care, safety, and success of all student team members.

In the case of a student being excused from a team event or function due to any misconduct, the parent or legal guardian will be contacted to travel to the team's location for student's prompt removal and pick-up. All trip payments and any assigned or implied team credit will be forfeited by the student and parent/guardian

Meals and Snacks

We provide meals for the students on days when we will work during a meal time e.g. Saturdays 8-5 meetings or Friday 3-9 meetings. We charge an activity fee to help cover the expenses of these meals. Providing the meal helps us to use our time effectively by not having kids leave as well as giving the kids time to socialize and bond. Please fill in the Google Form registration with any food allergies or restrictions, and we will do our very best to accommodate them. Please contact Sue if you have any concerns. The activity fee for the Fall is \$25, and the activity fee for the Spring is \$75. We will have a Sign-Up Genius asking for parents to help plan/serve the meals. This can be homemade or picked up from a restaurant. We are always appreciative of donations, but we will reimburse for expenses, up to \$5/kid. More details will come about this.

We also stock our kitchen with snacks for kids who want something to nibble on. We ask for parents to send in snacks and water/sodas to help keep our snack area filled.

Supporting students at events

Parent support for attending events is highly recommended. Especially during the last day when the playoffs begin and awards are distributed. Competitions are large, and the extra adult help can be great to help keep students focused and safe, and you get to the benefit of seeing the output of all your students hard work. Please be sure to allow your student to grow independently during these times though.

Assisting the team

Any parent wishing to assist the team – THANK YOU. To be a parent volunteer, please ensure that you complete the Pearland ISD background check annually (typically in August): <https://winoc.pearlandisd.org/workspace/wSpace.exe>

There are lots of ways our parents are awesome. Some key ways in past years have been:

- Helping with building the field – any parent with woodworking or power tool experience is greatly appreciated, especially years with a lot of field
- Providing meals on our long meet days (about half of Fridays in the springs, and all Saturdays in the springs)
- Providing snacks and drinks for the team
- Chaperoning events
- Helping the non-profit booster (a 501(c)(3) organization) to apply for grants (Does your company do corporate matching? <https://www.firstinspires.org/ways-to-help/corporate-matching-gifts> or have other community grants? Talk to us!!)
- Some parents even step in to be fully engaged as a technical mentor!

How to see what we're doing

One obvious way is come on in! However, many parents have shared they really like our team media because it gives them a chance to see the team in action.

Facebook: www.facebook.com/FRC5414

Twitter: www.twitter.com/FRC5414

Instagram: www.instagram.com/pearadox5414

YouTube: www.youtube.com/PearlandFRC

Booster club

The Pearland Robotic Booster Organization is the 501(c)(3) that supports Pearadox. Nearly all of our fundraising comes from grants or corporate sponsors and goes through our Booster Organization.

If you are interested in participating in our booster club (whether as a Board member, Committee chair, or just as a parent voice) please be sure to talk to Sue Moore.

Fundraising

Doing what we do is expensive. The cost of registering alone for 2 district events, the state championship, and the world championship is \$15,000. Factor in building a robot, prototyping materials, upgrading/replacing tools, and outreach, and it's easy to see that we are very dependent on the hard work of our team to fundraise via corporate sponsors and any fundraising event we can think of. Students are expected to pay for their own travel and team apparel. If there are issues however, please be sure to discuss with a teacher/mentor or booster club.

The best way to help the team is to see if your company may provide any community support/sponsorship/grants (we will even help fill out all the paperwork), or matching donations. Our sponsorship packet can be found out the bottom of the page here: <https://pearadox5414.weebly.com/sponsorships.html>

We typically have one fundraiser each year where we expect students to raise \$50 (or donate \$50 as a "buy out". For the 2019-2020 season, we will be selling the Love Handles phone grips. We are asking students to sell 5 of these at \$10 a piece. The team makes profit margin on these. We typically also try to have a spring fundraiser (such as a car wash) where 100% of any funds a student raises can be applied to the students account to cover competition fees.

Easy ways to help

If you have an amazon account, you can use smile.amazon.com and set your supported organization to Pearland Robotic Booster Organization. It is the same products and prices, but Amazon will donate 0.5% to the organization.

If you shop at Kroger, you can set Pearland Robotic Booster Organization to be your supported organization.

