

Team 1678 Citrus Circuits

Mentor Handbook

About the Handbook

This handbook is intended to contain the information needed for all Citrus Circuits Mentors to understand the administrative and logistical procedures for FRC Team 1678 Citrus Circuits. All changes to the handbook are reviewed and approved by Lead Mentors

[About the Handbook](#)

[About FIRST](#)

[About FRC](#)

[Gracious Professionalism](#)

[Coopertition®](#)

[About Citrus Circuits](#)

[Motto](#)

[Vision](#)

[Mission](#)

[Benefits of Mentoring](#)

[Safety](#)

[Student/Mentor Interactions](#)

[Meeting Safety](#)

[Shop Safety](#)

[Online Communication](#)

[Methods for Mentoring](#)

[Mentor Roles](#)

[Subteam Mentor](#)

[Supervising Mentor](#)

[Lead Mentor](#)

[Onboarding and Requirements for Mentors](#)

[Mentor Behavior Standards](#)

[Meeting Schedule](#)

[Off-Season: August – December](#)

[Build Season: January – February](#)

[Competition Season: March – April](#)

[Summer: May - August](#)

[Traveling to Events](#)

[Media Confidentiality](#)

[Phase 1: Totally Confidential](#)

[Phase 2: Partially Confidential](#)

[Phase 3: Off-Season](#)

[Sharing Confidential Material with Active Team Members and Mentors](#)

[Intellectual Property Policy](#)

[Contact Information:](#)

About FIRST

FIRST, For Inspiration and Recognition of Science and Technology, is a non-profit organization dedicated to inspiring young people to excel in the areas of science, technology, engineering, and mathematics through programs such as the FIRST Robotics Competition and FIRST LEGO League. FIRST was founded in 1989 by Dean Kamen (inventor of the Segway and the insulin pump) and has since become a large international organization reaching thousands of students from elementary school through high school. For more information, visit <http://www.usfirst.org>.

About FRC

FRC, short for FIRST Robotics Competition, 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 at a professional level. The over three thousand teams contain anywhere from fewer than ten to over one hundred students with guidance and support from adult mentors. Each year, each FRC team builds a robot to compete in a new game released in early January.

Gracious Professionalism

As part of its mission to encourage student leadership and collaboration through yearly robotics challenges, FIRST promotes Gracious Professionalism as one of its core values in all levels of competitions. 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 extends their philosophy through their value of Coopertition®, which “produces innovation. At FIRST, Coopertition is 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.” (FIRST Website, <http://www.usfirst.org/aboutus/gracious-professionalism>).

About Citrus Circuits

Team 1678: Citrus Circuits is an FRC team founded in 2005. Team members are students in grades 9–12 in the Davis Joint Unified School District.

Motto

Educate. Empower. Excel.

Vision

Team 1678 Citrus Circuits strives to empower students to gain self confidence and become leaders, collaborators, and critical thinkers while fostering a culture of STEM celebration in our community.

Mission

Team 1678 pursues our vision by building a student-led, mentor-based environment that fosters innovation and teaches interpersonal and technical skills. Citrus Circuits also develops local partnerships and community outreach while striving to compete at the highest level possible.

Benefits of Mentoring

Mentors on the Citrus Circuits will have an opportunity to work alongside students who are passionate about what they do. Students have selected their area of specialty from the following subteams:

- Hardware Fabrication
- Hardware Design
- Hardware Electrical
- Software Robot
- Software Scouting
- Business/Media
- Chairman's

- Strategy
- Outreach

As a mentor, you will be able to use your experience to guide students in their pursuit of knowledge and experience in their chosen area. You will also benefit from the excitement and challenge of competing in the FIRST Robotics Competition, a one-of-a-kind experience.

Safety

On Citrus Circuits, safety is our first priority. As mentors, we are responsible for ensuring the safety of our students is maintained during all team activities, including team meetings, team events, and communications online.

Student/Mentor Interactions

We, as mentors, should always be adult role models for our students. In that regard, we need to act as adults and maintain social separation. We are not their buddies or gossip partners. This does not mean that we shouldn't be empathetic and caring, but we should always be clear that we are the adults in the room. If we hear students talking about other students and/or mentors, we should never support or encourage their dialogue. It is OK to acknowledge but not "play along." This is critical to maintaining mutual respect.

Meeting Safety

Rule of Three. Never be left in a room with only one student. If you are the last mentor supervising a team meeting and only one student is remaining, end the meeting immediately. When transporting students for any reason, mentors should also be sure not to be with only one student at a time in a car. Always be sure to take a second student or another adult in the car when driving students to any event or other location.

Shop Safety

Only students and mentors that have been properly trained on various tools or machines should be using them. Please be aware of how students are using equipment during team meetings. If something doesn't look right to you, feel free to gently ask the student to stop what they are doing and review the situation. If you are not sure what the proper use of a tool is, you can reach out to another mentor or lead student to get their opinion.

Online Communication

Our team is fortunate to have the resources and infrastructure to support online and remote work, in addition to our team meetings. The team regularly uses communication tools such as email and Slack, online collaboration tools such as GitHub and OnShape, and video conference software, in order to continue work/training outside of team meetings.

These online tools are meant to serve as extensions of our in-person meeting functions. Thus, all behavior expectations, including the above “Student/Mentor Interaction” guidelines, apply. Please keep all of your online communication with students consistent with expectations. Where possible, utilize public Slack channels to provide visibility in your communication with students.

Methods for Mentoring

Mentoring, just like teaching, is a constant learning experience. It is impossible to adequately address all of the ways to improve as a mentor of Citrus Circuits. However, the following mantra from FIRST sums up the basic process of how a mentor’s experience is handed down to the student:

I DO - YOU WATCH

I DO - YOU HELP

YOU DO - I HELP

YOU DO - I WATCH

All four methods are valid and encouraged on Citrus Circuits. We understand that all four methods will be important to utilize depending on the situation.

Mentoring students can be rewarding and, if done thoughtfully, can encourage our students to take the lead in learning and guide them to excel in their roles for the team. By becoming a team mentor, you are becoming a guide who:

- Allows, encourages and promotes independent thought
- Facilitates open communication within the team
- Fosters a reciprocal foundation of trust and respect
- Encourages effective facilitation
- Models and inspires a pursuit of excellence
- Develops roles within the team

Please read the FIRST Mentor Guidelines on how to be an effective mentor for our team:

[MENTORING GUIDE](#)

Mentor Roles

Team 1678 has established definitions for specific mentor roles that will help you move from an inexperienced to experienced mentor.

Subteam Mentor

A Subteam Mentor is a mentor working with a specific subteam who has acquired the knowledge and experience to be considered capable of working with students under the supervision of a Supervising or Lead Mentor.

Supervising Mentor

A Supervising Mentor is a mentor who, in the opinion of the Lead Mentors, has the experience and training to be able to supervise groups of students and maintain a safe and healthy work environment. Supervising Mentors enable broader and more flexible meeting hours for the team.

Lead Mentor

A Lead Mentor is a mentor who has additional responsibility for the management of the team. They are responsible for working directly with Student Leaders on team planning activities, guiding the mentor group, giving oversight on parent committee activities, and acting as the primary interface between the team and FIRST/DJUSD. Lead Mentors would typically have at least 5 to 10 years of education, industry and/or FIRST experience, and possess credentials or licenses that attest to their expertise.

Onboarding and Requirements for Mentors

All mentors are required to go through a list of training and certification steps to participate on the team. These requirements are a combination of standards set out by FIRST, DJUSD, and Citrus Circuits. The requirements serve to both train our mentors and protect our students.

Potential mentors are encouraged to learn about the team and visit for a few meetings to see if Citrus Circuits is a team they would like to join. No requirements need to be met before these initial visits.

After visiting a few team meetings, each potential mentor will meet with Lead Mentors to discuss the team and their involvement on the team. The Lead Mentors will determine if the potential mentor is a good fit for the program, and communicate that decision to the potential mentor within a week of their meeting. Once accepted as a mentor, the new mentor should begin completing the requirements listed below, with a goal of completing the requirements within two months of joining the team. In parallel, a Lead Mentor will complete the mentor onboarding steps.

Mentor Requirements (to be completed by each Mentor):

- Two full years or more out of high school
- CPR/First Aid training certification
- FIRST Robotics Youth Protection Program (YPP) screening/clearance. Information about this process can be found in this link: [Youth Protection Program | Resource Library](#)
- FIRST *Equity, Diversity and Inclusion Training: Strategies for Inspiring Success*. This training is intended to help us create a diverse, inclusive and equitable team, as well as equip us with specific strategies to support community outreach, student participation,

persistence, engagement, and success. The three-part training module course can be found in this link: <https://info.firstinspires.org/inspiring-success>

- DJUSD Adult Supervisor Fingerprinting. Steve Harvey will provide instructions, there is a fixed fee (less than \$50) to file the paperwork. The team is happy to reimburse the processing fee, please save your receipt and give it to a Lead Mentor for reimbursement.
- Sign and return the current season's FRC Team 1678: Citrus Circuits Mentor Contract. This can be found at the bottom of the Mentor Handbook.
- All above requirements should be current. If any requirements need to be refreshed, this should be completed by the end of October each season, or within two months of the requirement expiring.

Mentor Onboarding (to be completed by a Lead Mentor):

- Add new mentor contact info to Roster
- Add new mentor email to mentors@citruscircuits.org email list
- Add new mentor to the Citrus Circuits Slack Channel
- Add new mentor to www.citruscircuits.org/our-mentors.html
- Introduce new mentor during a Citrus Circuits General Meeting

Mentor Behavior Standards

As stated earlier, we are role models for our students and should always exhibit role model behavior. As mentors, we are here to support the team's mission and vision, create great experiences and learning opportunities for the students on the team, and provide an ongoing example of professionalism in all our interactions. Among the standards we have for mentors on the team are:

- Help students identify their strengths and provide opportunities for them to improve their skills in areas they need help
- Provide positive reinforcement and constructive criticism of students to assist them in their growth and development on the team
- Allow students the opportunity to discuss issues they may be having with peers or other mentors in a safe environment with an appropriate student leader or mentor
- Exhibit supportive and effective working relationships with other mentors
- Model positive relationships with other teams at competitions and be supportive of all competitors during the event
- Maintain a positive and respectful presence on social media and other platforms, such as Chief Delphi, since your conduct reflects on the team and how we are perceived within the FRC community

There have been occasions in the past where mentor behavior has not been up to team expectations and students have asked, "why are mentors not being held to the same standards

as students?” This is not a situation we want to be in. Following are some examples of mentor behavior that are not acceptable on 1678:

- Criticizing, belittling, or humiliating individual students, either in private or in front of their peers
- Arguing with another mentor at team meetings or in any other public setting
- Using your authority as a mentor to coerce a student into doing something for you
- Making disparaging remarks in a public setting about other teams

These, and other negative behaviors have occurred on our team, often “in the heat of the moment.” The best way to make sure that these types of behavior do not happen is for all of us to follow the suggestions in this document and the link to the FIRST Mentor Guidelines provided earlier. If we, as mentors, observe any of these behaviors among our peers, the best course of action is to immediately address the issue directly with the mentor involved and/or to discuss the situation with a Lead Mentor.

Mentor Commitment to Team Goals

Mentors are expected to work with students and other mentors in a manner that is consistent with the goals, mission, and values of the Citrus Circuits. We encourage a diversity of approaches that assist students in becoming productive and successful members of the team, but mentors should be willing to support the approach to competition and models of learning as expressed by the Lead Mentors.

Meeting Schedule

During the school year, the team meets from 6:30-9 p.m. in M1 on Wednesdays and Thursdays, unless otherwise notified. While mentors may have flexible schedules, mentors should understand that their ability to impact the students on the team depends in part on the time they are present and participating in team activities and decision-making. Mentors who are unable to attend or communicate with one of the Lead Mentors for more than three months may be dropped from the team

Off-Season: August – December

Off-Season goes from the first meeting of the school year to the last meeting before winter break. During this time, the focus is on training new members and raising money for the year. However, additional meetings may be scheduled in order to prepare for Off-Season competitions. Potential extra meeting times include Saturday/Sunday 9 a.m.-5 p.m.

Build Season: January – February

Build season is where it all comes together. At Kickoff, we will receive the game, and we will design, build, program, wire the robot by our first competition. Because build season is regulated to be only slightly longer than six weeks, we need our strongest commitment during

build season. In addition to the regular Wednesday and Thursday meetings, we will also have meetings from 9 a.m.-5 p.m. on Saturdays, Sundays, and any Monday holidays.

Competition Season: March – April

During competition season, we will be preparing the team for competition and attending competitions. We will probably add additional hours to continue working on the robot, but the schedule will be very similar to that of build season.

Summer: May - August

Summer is used for preparing for the upcoming season. Regular meetings are not scheduled during finals or after school ends, but fundraising and outreach efforts will take place. We frequently have demonstrations to summer camps and other groups, including sponsors.

Traveling to Events

Outside a few key mentor roles, all mentors are expected to arrange their own travel and lodging for events. Mentors are encouraged to plan well in advance and try to coordinate with each other to plan out rooms and travel logistics. If you'd like to know what hotels, flights or restaurants the team will be using, ask the parent trip coordinator (Lead Mentors will know who this is).

Media Confidentiality

Much of this media contains information the team wishes to keep confidential. We want to keep some aspects of 1678 robot design and strategy confidential during the competition season, so we limit posting of photo/video material until the appropriate phase of the season. Confidential material is limited to sharing only with active 1678 team members and mentors. This excludes previous team members. For posting Photo/Videos in public forums, the 1678 season is broken into three phases.

Phase 1: Totally Confidential

Phase 1 is the totally confidential period. During this time, no media involving the current season's design or strategy may be posted in a public forum (including the team website), shared with a member of another team, or shared with a previous team member (even if they are not mentoring another team). This phase lasts from the beginning of season kickoff and ends when 1678 appears in a regional competition.

Phase 2: Partially Confidential

During Phase 2, some design details remain confidential. This phase begins when 1678 competes in a regional competition and ends when the 1678 official competition season is complete (hopefully after the World Championships). The robot has already appeared in public, but some topics remain confidential during Phase 2. Examples:

- Close-up photos of mechanisms.
- New designs/strategies which have not yet been used in public competition(s)
- Video of our robot practicing or scoring outside of public competition(s)

If you are unsure what might be sensitive information, please ask Mike.

In addition, extend this same courtesy to other teams. Any media which shows their robot or mechanisms in the background must be considered confidential until after championships. This does not apply to photos and video taken at tournaments which are open to the public.

Phase 3: Off-Season

Phase 3 is the Off-season, lasting from the end of the official FRC season, until the next season kickoff. During this time, there is no limit on sharing photos/video from the previous FRC competition season. For new projects during off season, avoid public pre-exposure (examples: off-season robot, new drivetrain). People leading the project decide when to share outside the team. Always, when in doubt, check with Mike before posting.

Sharing Confidential Material with Active Team Members and Mentors

When sharing confidential material via websites such as photo sharing sites and youtube, access must be limited to those with explicit permission by you, or by a non public URL. When sending/posting material or links, include a confidentiality reminder, such as, "Reminder – please limit redistribution to only current active team members until after completion of the competitive season." The confidentiality reminder should be included in every email which contains confidential images.

(This section has been adapted from Team 971 Spartan Robotics' Photo and Video Policy.)

Intellectual Property Policy

In order to ensure team knowledge is passed down effectively and to maintain integrity of team resources, we ask that team members understand that all documentation created for team activities and shared with any team members is considered part of the growing team knowledge base. When information is shared through Google Drive, GitHub, GrabCAD, Dropbox, email, or any other sharing service, it becomes part of the team knowledge base and will be considered team Intellectual Property (IP).

Careful consideration should be made before sharing team documents to those outside the team. If the Media Sharing Policy does not cover a question you have about sharing documents, ask a leadership team member. In addition, materials protected under this Intellectual Property Policy should never be removed from team access.

Media Consent Contract

For our team to advertise itself to our community, whether it be the FIRST, school, or Davis community, we ask that all team members understand that they consent to the participation in interviews, the use of quotes, and the taking of photographs, movies, or video tapes of team members by Citrus Circuits Robotics and FIRST.

Team members must also agree to grant to the team, Citrus Circuits Robotics, 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 Citrus Circuits Robotics and FIRST and their agents and employees from all claims, demands, and liabilities whatsoever in connection with the above.

Contact Information:

Here is the contact information for the Citrus Circuits Lead Mentors:

Steve Harvey (Lead Mentor):

sharvey@djud.net

Michael Corsetto (Lead Technical Mentor):

corsetto@gmail.com

Brook Ostrom (Lead Business and Media Mentor):

j.ostrom@sbcglobal.net

We expect all team mentors to follow and understand all guidelines and policies in this handbook. Lead Mentors will discuss consequences for major violations and consider confidential information in decisions.

These mentor guidelines will always be a work-in-progress. Please understand if Lead Mentors provide additional guidance that is not covered yet in this handbook.

Thank you for being a part of the Citrus Circuits!

FRC Team 1678: Citrus Circuits Mentor Contract

Please print this page, sign and submit to Lead Mentor

By signing below, I, a Citrus Circuits mentor, agree with the following:

- I have read and understood the Citrus Circuits Mentor Handbook, including the Mentor Requirements.
- I understand the behavioral standards expected of me as a team mentor.
- I understand that I volunteer as a team mentor at the behest of the Citrus Circuits Lead Mentor, who is a DJUSD employee and is responsible for this school-sponsored program. I will honor and respect any decisions from the Lead Mentor regarding my participation in the program.
- I have read and understood the Media Sharing Policy, the Intellectual Property Policy, and Media Consent Contract.
- I understand that if I have a question or concern about the team, I am encouraged to bring that to the Lead Mentors.

Mentor (print name)

Signature

Date