

## Team Dynamic

### FIRST® Teams

There is more than just camaraderie on many FIRST® teams. Many teams become extended families, with strong, lasting relationships. Students and adults absorb knowledge from each other and grow through a teambuilding and learning process from which everyone benefits.

It is important to ensure that the team dynamic remains **positive, supportive, engaging**, and above all, **fun**. Throughout the experience, team members will face long hours and days working on the robot and awards submissions. Whenever possible and appropriate, keep the atmosphere friendly and add laughter.

FIRST Tech Challenge teams and their members come from a variety of backgrounds. New teams should not expect to be like every other team, and experienced teams should not expect to be the same from year to year. Each team will have a different set of skills, experience, and ways of doing things. Take time to get to know each other and find an approach and style that suits the team and its goals.

Teams are encouraged to develop and promote team identity. It is a great way to help FIRST judges, announcers, and audiences to recognize a particular team at a competition. It is also a way to help teams create a “buzz” about what they are doing in their own communities.

Encourage team identity by adding the team logo to robots, t-shirts, or hats. Create a team cheer, banner or website and hand out fliers or other giveaways that will make the team memorable.



### Creating a Positive Team Dynamic:

There is a lot at stake during each of the competition stages so developing an environment of trust and respect between all team members is a priority, and is part of the Mentor's role. Mentors set the tone for the team dynamic through their own demeanor, actions, and words. Everyone on the team needs to know all team members are valued and they are honest, respectful, and dependable. Stress this point at the very first meeting and encourage this attitude among the team members throughout the season. Remember, every team should work towards a balance of work effectiveness and FUN!

The true goals of FTC® have very little to do with winning medals or trophies. If a team can look back at the end of the season and say even one of the following, they have succeeded.

- We learned how useful and fun math and science can be.
- We did something we did not think we could do.
- We respected and considered ideas from everyone on the team.
- We helped our community.
- We figured out how to manage time, deal with setbacks, and/or communicate ideas.
- We had fun!

Remember to take breaks for snacks, games, and getting to know each other. Breaks should be timed to maintain productivity, but students should be granted some freedom in how they spend that time. Student managers can be assigned the task of timing the breaks and refocusing the team afterward.

## Keys to Creating a Positive Team Dynamic:

### 1. Team Building

- Many teams have team-building events and other activities prior to January so new team members can get to know each other in a fun and relaxed environment. These activities can help make team members more comfortable and can build the foundation of a good working relationship.
- Team-building exercises allow members to communicate feelings in a positive and healthy way, and encourage Gracious Professionalism™ as they work together toward a common goal.
- Letting students have fun together allows them to develop communication skills and respect, leading to smoother progress when work resumes.
- Encourage laughter. Laughter builds camaraderie and diffuses tension.
- Host a team-building night to showcase talents and hobbies. Have students and Mentors be prepared to share information about themselves in an informal atmosphere. Possible activities include a karaoke night or talent show, a pizza party or spaghetti dinner, or a simple games night.

### 2. Mutual Trust and Respect

- Relationships between all team members, including the relationship between team members and Mentors, should be based on common goals and should build on mutual trust and respect throughout the season.
- It is important for Mentors to be approachable and available to students.
- Communication is the key to building trust and respect on a team.
- All team members should follow through with commitments made to the team. This includes Mentors as well as students.
- Respect all ideas. Make sure everyone treats all brainstorming and ideas with respect. Allow people to disagree with or challenge an idea, but do not allow them to judge an individual.
- A mutual foundation of trust and respect is critical for a supportive learning environment. Everyone's voice should be heard and all ideas should be listened to with a patient and open mind. Part of a Mentor's role is to listen to team members and to keep lines of communication open. While every idea or suggestion may not be usable, expressing a clear concept or idea is a great learning experience, and may serve as inspiration for other, more effective ideas.

### 3. Equality of Labour

- Students should feel that they are part of the thinking, contributing, and doing process for the team. They should feel they are equal with their peers and that their efforts are of equal worth.
- Equal contributions of time and resources among team members should be considered when tasks and roles are assigned to team members.
- All efforts of team members and Mentors should be appreciated and recognized.

### 4. Communication

- Set clear goals for the season and include expectations for group success at functioning together as a team.
- All team members should understand what is expected of them and how their responsibilities have been assigned.
- Let the students know they will have a large part in building the team's robot once they have learned and practiced the necessary skills.
- Everyone should know their ideas are important and will receive consideration. Mention this often as the season progresses.
- Keep the Group Focused. It is the facilitator's job to keep the team discussions focused on the topic.
- Always be an alert and active listener.
- Include everyone. Bring quiet team members into the discussion and work to prevent those who feel comfortable with communication from monopolizing the conversation.
- Unite the group. If there is a problem within the team, allow the team to communicate its frustration, decide on a course of action, and then help them move forward.
- Do not take sides. Keep conversations to facts, not emotions. Do not let things get personal.
- Paraphrase what has been heard from the others, or get someone else to do it. This keeps communication open because another listener may be able to correct or explain something that has been misunderstood.



- Build on ideas. Encourage people to build on ideas that have already been presented.
- Record ideas. Document brainstorming ideas and decisions for future team reference.
- Avoid re-hashing. Do not reopen discussions that have already been closed or decisions that have been made unless absolutely necessary. Team members should agree up front not to rehash unless all members of the team agree to do so.
- Be aware of verbal and non-verbal cues. It may be necessary for a Mentor to step in and help students work through communication difficulties. Validating a team member's feelings will encourage them to discuss problems when they arise. Sometimes acknowledgement or positive feedback may be all the response a team member needs.

### 5. Facilitate

- Clarify the task without doing the work. Define it as a simple task or a complex set of jobs that will take weeks to complete. Make sure the team understands how the task fits in with their goals and objectives, as well as what is expected of each individual. Provide a realistic deadline for the task's completion.
- Be aware of one person's potential impact on the group. Facilitators do not need to be experts in the topic being discussed, but if they are, they must be careful not to lead the discussion to a preconceived outcome.
- Get to know the group, its members, their goals, and their differences. This helps Mentors anticipate conflict and turn the experience into productive learning.
- Prevent group paralysis by watching for problems in achieving consensus, allowing adequate time for discussion, and being prepared to step in if the group cannot make a decision. Knowing when to push the decision on the group, or to make it, is a skill good Mentors develop over time.

### 6. Keep Students Engaged

- To maintain group enthusiasm, encourage new team members to share observations about their experience at meetings or events. This will help to bring new members out of their shells and inject the team with a new perspective and fresh ideas. It can also lead to lively, engaging discussion with more experienced members who can share their experiences and build on the ideas put forth by new members.
- Play robot games during team meetings and allow all team members to participate in different roles. Small challenges and games that involve driving, picking up, or moving objects with the robot can serve as try-outs for the Drive Team, or provide a fun way for all team members to develop a greater understanding of how the robot works. Experimentation with different roles and strategies will benefit the individual and the team as new approaches are tested and new abilities and interests are discovered.
- Get creative by involving the team in marketing and team identity tasks. Allow all team members to participate in the development of a team name and logo or naming the robot for this year's challenge. Create decorations for the pit or props and costumes for events.

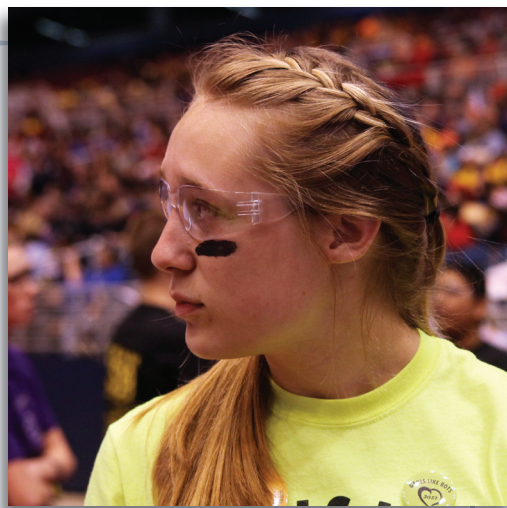
## Managing Stress

Watch for signs of serious stress among team members. There may be an appropriate reason to intervene. Ask if they need help or suggest they take a break and do something fun to clear their heads.

To reduce the pressure of meeting deadlines and meeting team goals, help team members clarify tasks and develop strategic plans for individual jobs. Ensure they understand the task list by defining tasks and their complexity. Make sure to show students how the task relates to the timeline.

Remember that robotics meetings and tournaments take place in very controlled environments, so team members may need some time and space to physically move around, relieve stress, and take a physical break from problem-solving or competition. Physical activity can break the tension and help students maintain focus in the end.

When tension starts to take over a team, take some time to go outside and play Frisbee, throw a ball around, or use available indoor space to play a simple game like "Statue." In "Statue" one student moves around the room as the rest of the team remains in a fixed pose. When the individual student is not looking, the other students may jump, wave their arms or move around. If a statue is caught moving, he or she becomes the individual who walks through the field of statues.



## Resolving Conflicts

Most of the time, groups can resolve interpersonal problems on their own in time. Teams that resolve problems on their own learn to function independently, which indicates that Mentors should avoid intervening as much as possible. However, Mentors must be aware of and help to regulate group dynamics. Since time is short with *FIRST*® projects, it may be necessary to intervene and help with the problem or task. It may be enough to simply comment on an interpersonal issue.

### General Guidelines for Resolving Conflicts

- Be conscious of personalities and interactions between team members. Effective Mentors use the similarities and differences of team members as assets to help the team get work done.
- Pay close attention to what and how something is said.
- Try to diffuse sparks by mollifying a somber, defensive, or explosive atmosphere. Sometimes simply noticing and showing concern will defuse a situation, but one of the best ways is to inject some kind of humor into the situation. It is hard to resist a smile, a pat on the back, a silly walk, or a wacky voice.
- Encourage frustrated students to take a few minutes to relax.
- If a dispute arises, help the team resolve it. Give both parties time away from the group to relate their side of the story, talk through the issue, and then re-focus everyone on a productive task.
- Be specific about what behaviors need changing and offer praise and support for positive social behaviors.

**Note:** Be sensitive to the situation. Some conflicts or disputes should be taken seriously.

If the team asks for intervention on an interpersonal issue, ask what it has done about the problem before proceeding further. The team members may have taken no action as a team, and instead may rely on Mentor intervention, rather than solving it on their own. They may simply need help identifying a problem or in coming to a point where they are willing to address their problem(s) as a team.

## Evaluating Team Progress

Have the adult Mentors evaluate team progress periodically and compare it to the goals and objectives the team has set. Another approach is to have an adult Mentor meeting each week to determine the next steps to resolve problems. Be sure to share this information with the whole team and gather their input.