

Selecting Drive Team Members

One important skill in FIRST Robotics Competition gameplay is driving and operating the robot. Often overlooked due to the demands of constructing the robot, thoughtful Drive Team selection is regularly a key differentiator for competitive teams. This guide lays out some helpful considerations when selecting Drive Team members.

Drive Team members must have good communication skills, demonstrate skills based on their role, and have a commitment to practicing throughout the competition season. Some techniques and considerations for selecting Drive Team members include:

Talent vs. Experience

When evaluating Drivers, consider a candidate's raw talent and their accrued experience. Talent, or the candidate's natural innate ability to operate the robot, is a powerful differentiator that sets candidates apart. A candidate with high talent but little experience can often perform at a level equal to or greater than candidates with experience but little talent. Analogous with sports, arts, music, and education, an individual with high talent cannot rely on talent alone and must practice and reflect to improve.

The Driver selection process should look for talented, dedicated candidates willing to put in the time and effort to grow their skills. Consider how much time you will have available to practice with the robot. If you have little time available for practice, a candidate with high talent may be the right choice. If you have more time available for practice, a candidate with lower initial talent that excels in communication and composure may become the better choice over time. You don't have to wait for your current robot to be complete in order to assess driver talent, a previous robot, test drivetrain, or the bare drivetrain of the current robot can all be used to assess driver talent.

Similar considerations exist for the physical skills of a Human Player. While the details of this role vary widely from game to game, there is often an aspect of physical skill involved, even for tasks such as entering scoring objects to the robot. Selecting a Human Player involves the same tradeoff of talent at these physical skills vs communication and composure based on how much time is available to practice and improve.

For a Drive Coach, the skills involved may be a bit harder to assess. Talent as a Drive Coach involves the ability to plan and convey strategy before a match and then orchestrate the execution of that strategy during the match including communication, split second decision making, and innate awareness of time remaining in the match. For more information on what makes a good Drive Coach, see the [Drive Coach Best Practices](#) resource.

For the Technician role, it is generally all about experience and communication. Often teams will use the Technician to fill in a gap in technical knowledge on the Drive Team. The most important aspects to have covered are how to set up the robot for the match, how to set up the driver station, and ensuring everything is connected. If you already have those aspects covered with another member of your Drive Team, consider using the Technician role to cover other gaps such as mechanical knowledge for repairs in the queue or strategy knowledge to assist the coach with any last-minute discussions with Alliance partners.

Communication

The ability to effectively and respectfully communicate new ideas, strategies, and opportunities for improvement is critical for Drive Team members. Effective Drive Team members are also able to communicate robot improvements and issues with the rest of the team. Drive Teams often find it easier to communicate and share ideas if their Drive Team has "chemistry," a good rapport developed through shared experiences like team-building exercises. Drive Team members should feel safe to communicate frustrations and successes with each other and work as a team to grow and learn together. A post-match "debrief" is a great way to highlight areas of improvement and celebrate successes. Taking the time to get everyone's

perspective can help ensure you can figure out how everyone can contribute to a better performance in the next match.

Composure

A *FIRST* Robotics Competition tournament is a complex environment with immense competitiveness and time pressure. Effective Drive Team members will be able to remain calm under pressure and coolly evaluate the situation before choosing the best actions. When evaluating Drive Team members, look for individuals that are able to adapt well when something goes wrong and quickly move to an alternate plan. While careful planning can reduce unexpected scenarios and the panic that may come with them, over the course of a tournament it's likely that unexpected things will still happen, and the Drive Team will be forced to react immediately.

Interactions

The Drive Team serves as the “face” of the team when interacting with volunteers, alliance partners, and opponents. All Drive Team members must keep this in mind, and act accordingly, at all times during events. Drive Team members should interact respectfully with individuals outside the team and should avoid talking negatively about volunteers or other teams, even if they don't think others can hear them.

Knowledge

While it's not the sole responsibility of the Drive Team to read and understand the rules, thorough knowledge of the rules by every member of the Drive Team is certainly a must. Successful Drive Teams observe constant vigilance with the rules by keeping up with all [Team Updates](#) and the [Q&A](#) and making sure to have a reference copy of the updated [Game Manual](#) with them at all events. Some matches are decided by a single penalty, so understanding the rules is key!