

# FVC Competition Tips & Best Practices

## Registration/Check-In

In order for your team to start out successfully at an FVC event, be sure to arrive early or on time with robot, battery packs & chargers, spare parts, tools, safety glasses, engineering notebook, and all other items your team decides to bring (see Team Marketing). Upon arrival, you should have a designated adult team member find the registration area to check in your team. This will alert event officials that your team is present and you will receive all vital information about venue layout, schedules, important documents, and submitting your engineering notebook. While this adult team member is taking care of registration, other designated team members should locate the pit area and begin setting up. The sooner you are checked in and have a pit area set up, the sooner you can practice and get ready for competition.

## The Pit

At the competition site each team is allocated an area to be used as their base of operations. This pit area can serve several functions, some of which are outlined below.

- The pit is generally an area to build, repair or enhance your robot during the competition day. Take the time to organize the layout of your pit so that tools, spare parts, laptops, etc. are easily accessible and will allow a small number of people to work in parallel without getting in each other's way.
- The pit is a great area to promote your team and your team's sponsors. Use your pit area to put up banners with your team name/number or display pictures of your build process and/or designs of your robot. Be creative in decorating and customizing your pit area. When you are done, anyone who walks by your pit (be it other teams, judges, VIPs) will be able to see what makes your team special and unique.
- The pit can be used as a common meeting place. After every match, the team should gather at the pits, not only to cheer their team on after a great match (win or lose) but also to regroup, disseminate any needed information, and prepare for any upcoming matches.

While work is being done in your pit area the team should limit the number of people to only those essential to the task at hand. The remaining team members should take this time to scout other teams (see Scouting) or watch matches and/or market your team (see Team Marketing). Please note that the pit area for each team may vary slightly between different event sites.

## Getting/Giving Help at an Event

One of the best parts of a *FIRST* event is the spirit of "Gracious Professionalism" that exists among event volunteers and teams. Although you are there to compete, your team should never feel isolated, especially if and when you need assistance. At an FVC event there are two main places to ask questions of the event staff. Please always be aware of the location of the registration table and the pit administration area. Key volunteers staff these areas and will be able to assist with most needs. In addition to this, if your question is field, game, or match related, the head referee can always be found at the field. Please see your manual and tournament rules to learn about communicating with the head referee.

It is also very common for teams to help other teams at *FIRST* events. Please do not hesitate to ask other teams in the pit area or field-side for assistance of any kind. Whether it is technical, non-technical, spare parts, or logistical assistance you may need, there are usually many teams willing and able to help. Likewise, if your team has a particular area of expertise (programming, mechanical design, strategy, scouting, interacting with judges, etc.), you are encouraged to share what you know. *FIRST* believes that when teams share knowledge and resources, it elevates the level of competitiveness and also promotes essential

cooperative values. Your team might even have a designated team member circulate in the pit area to offer assistance, or perhaps you might ask pit administration to announce that your team is willing to help.

## Team Marketing

- Marketing your team is very important at the competition. Not only is this a great way to meet other teams and make new friends, it comes into play heavily in the choosing of alliance partners for the finals (see Alliance Selection). If your team's performance does not qualify you to be one of the eight teams choosing partners for the finals, you want to be one of the top teams on their picking lists. How can you do this? With the combination of a competitive robot and good team marketing! There are no set rules in regards to how you should market your team, however, there are a few commonly used strategies: Create team handouts (include your team number, name, a picture of your robot, and a description of your robot/team strengths). Try to keep this clear and concise. Remember that other students will most likely be reading these.
- Visit other team's pit areas, introduce yourself and your team, and hand out team promotional items. (If a team is busy fixing their robot, try to find an available team member or come back at a later time.) Some widely used items are:
  - Buttons
  - Trading cards
  - Flyers, etc.
- Show your team spirit. Cheer for the teams on your alliance in addition to your own.

How you market your team could mean the difference between a first round pick, second round pick, and not being picked at all. Always keep a positive attitude, even when losing. No one wants to pick a team that looks like they have already given up.

*Note: While we encourage you to be innovative with your team marketing, we ask that you do not bring loud "noise makers" such as bull horns, bands, and whistles. While we expect a lot of excitement, cheering, shouting, and clapping, certain instruments/devices can be excessively loud and can ruin the experience for others attending the event.*

## Alliance Selection

The alliance selection process can be found in Chapter 3: The Tournament in Section 3.5. After the qualification matches, the top eight teams will have the opportunity to choose two teams to ally with them in the finals matches. If your team is fortunate enough to be in this position, there are a few things to keep in mind.

- Be prepared with a list of teams that your team is interested in allying with in the finals. This list can be ordered in several ways. It can be ordered simply by team rankings or by taking into account robot functions and how well they will complement your team. Where do you get all this information? From your scouting reports (see Scouting). You should begin compiling this list before your last qualification match. You may be thinking that you need to know you are in the top eight before compiling a list—however, this is *not* the case. Before your last match you will have a pretty good idea of where you are going to end up in the rankings. You may move up or down a few places, but if you believe you will end up within the top fifteen ranked teams, having a list is a must. If the top teams pick other teams in the top eight, you could find yourself in the position to choose your own alliance.
- Once the selection process has begun, cross off teams that have already been selected from your list so that you do not request the assistance of the same team once it is your turn to pick.
- As soon as selections are completed, determine whom you will be competing against, find a place where you can meet (maybe the alliance captain's pit area), and begin developing a strategy for the next match.

If your team does not get selected for the finals, congratulate your team for their efforts and lend your support and cheers to the other teams moving forward.

## Scouting

Scouting is not only important for determining who to choose in the alliance selection process, it is also useful in developing custom strategies for each match. In order to develop a winning strategy for a match, you want as much information on both your opponents and your alliance partners as possible. The most common way to do this is to create scouting sheets to be filled in with information such as robot capabilities, common strategies, and match scores. These sheets are filled in by “scouts” that your team sends to watch matches and speak to other teams. When scouting other teams, remember to be gracious and professional. There is NEVER a need to use underhanded tactics or subterfuge to gather information.

Below are some questions that you may want to consider when preparing your scouting sheet/database. (Note: *This list is not exhaustive.*)

- How fast is the robot (compared to some baseline)?
- How mobile (swerve drive, tank style, etc.)?
- How many softballs can it carry at one time? Does the team use the max capacity in a match? If not, how many do they carry at a time?
- Does the robot pick up balls from the ground or the stack? How well/fast does it accomplish this?
- Can the robot take balls from the opponent’s low goal?
- Can the robot score in the high goal? If so, how many balls can it score at a time?
- Where does the team prefer to score (low or high goal)? Do they go for the low goal first and then head for the high goal at the end?
- Does the robot have any special defensive ability or mechanism? Is it effective?
- Can the robot be easily pushed? Can it push other robots off the platform?
- Can the robot climb onto the platform?
- Can the robot hang? If so, does it need to be on the platform or can it hang from the floor?
- Can the robot handle the Atlas ball?
- How reliable is the robot?
- What does the robot do in autonomous mode? How repeatable is it?
- Is there anything else interesting about this robot/team’s strategy?

In addition to these qualitative observations, it is a good idea to keep track of each team’s statistics. Keep a tally of various stats including, but not limited to: number softballs scored in goals, whether they hung or parked and autonomous score. By evaluating this data you’ll be able to develop effective strategies and choose a complimentary partner during alliance selection.

## Awards Ceremony/Packing Up

At the conclusion of a long day of competition, the event staff, referees, and judges want to recognize some of the teams in attendance. After the conclusion of the elimination matches, an award ceremony will be held on the playing field. Please keep in mind proper courtesies during the awards ceremony.

- We ask all teams to stay for the awards ceremony (if possible).
- All teams and team members should be in the stands or seats for the ceremony.
- Cheer and applaud all teams that win awards. Like you, they have worked hard and deserve to be recognized.
- When awards are announced, the entire team may come down to accept the award and get congratulated by the judges and referees.

- Please follow the directions of event staff and volunteers regarding entering and exiting the field during the awards ceremony.
- Please pack up and clean up your pit area before the awards ceremony (or shortly thereafter).

At the end of the awards ceremony, everyone is looking forward to going home after a long day. This includes the staff and volunteers at the event. Please try to leave your pit area as clean as possible when you depart. While you are cleaning up, send an adult to the pit administration table to collect your team's medallions. You've had a great day, congratulate yourself, go home, and get some rest!