

## 18 Hints For FRC Rookie Teams From NEMO

1. **Have at least one mentor and one student join [www.chiefdelphi.com](http://www.chiefdelphi.com)** to ask questions and get answers. You will quickly find hundreds of ideas and offers of help in this popular free forum! Check out the CD Media papers section for team handbooks.
2. **Explore the FIRST site in depth.** Look at existing information on starting a FIRST team: <http://www.usfirst.org/what/frc/content.aspx?id=368> , the "ASME Guide to Starting a Team" at: [http://www.asme.org/Events/Contests/Guide\\_Starting\\_FIRST\\_Team.cfm](http://www.asme.org/Events/Contests/Guide_Starting_FIRST_Team.cfm) , the FRC Handbook: [http://www.usfirst.org/uploadedFiles/Community/FRC/Team\\_Resources/FRC%20Handbook%20-%20Final3.pdf](http://www.usfirst.org/uploadedFiles/Community/FRC/Team_Resources/FRC%20Handbook%20-%20Final3.pdf) and Sample Team Timeline: [http://www.usfirst.org/uploadedFiles/Community/FRC/Team\\_Resources/Appendix%20D%20Team%20Sample%20Timeline3.pdf](http://www.usfirst.org/uploadedFiles/Community/FRC/Team_Resources/Appendix%20D%20Team%20Sample%20Timeline3.pdf)
3. **Develop a mentor relationship with a nearby team.**
  - Contact the local Regional Committee to help locate mentors. Ask to borrow an experienced mentor.
  - It's easy to become overwhelmed when the 6-week build season starts. Having another team to turn to can give some reassurance and pointers, and to listen to ideas. There is just so much about the game and FIRST that rookie teams won't understand and older teams take for granted. Newly recruited mentors will be learning the FIRST ropes along with the students: What should they do first? Who can best answer the questions? What's critical, what isn't? What skills will your team need? How robust is "robust"? What are the rules/qualifications/logistics of how a competition runs? What are the common mistakes?
  - Networking is the key. Make as many contacts with other teams as possible. Talking with other teams helps you learn a whole lot more than you could about FIRST from any other source. Teams exchange parts willingly. There is a tremendous amount of support in the FIRST community. Don't be afraid to ask for help.
  - Visit a nearby team and see an old robot to get an idea of what you are attempting to build. Ask nearby teams if they have copies of the FIRST documentaries about the competitions to watch as a team. This year, there are a few teams making videos to help rookie teams.
4. **If there is no team nearby, develop long distance mentors.** See the FIRST site for a list of mentoring teams. Look at the Rural Support database (Team 103) and ask questions on Chief Delphi.
5. **Develop a realistic business plan.** Come up with a mission statement & a plan for approaching potential sponsors. Once this business plan is developed it can be used over again for grant applications and sponsor recruitment. Develop a realistic budget. You can't stress the "fundraising" too much. Things add up quickly and the more fundraising done before the build season the better off you will be. It won't be much fun to come up with only the \$6000 for the KOP (Kit of Parts) and then not have any money to buy commercial parts needed for the robot and to travel. Ask a veteran team about realistic cost estimates.
6. **READ THE RULES** before starting any design or building. Check the updates and the Q&A on the FIRST site daily as rules and deadlines can be changed or clarified.
7. **Actively recruit all parents, individually.** Most parents will have no experience with robots but will be surprised at how much their skills will benefit the team. Besides the engineering, parents can help with travel, organization, fundraising, spirit, communication, building the test field and meals.

8. Leave plenty of time to fill out all the **paperwork**. The online TIMS (Team Management Information System) registration, yearbook page, program page and surveys all take time. Monitor the email blasts from FIRST for deadlines.
9. **Develop a method for communicating what your team is doing**. Target information to the following groups: the team itself, parents, sponsors, school administrators, other students and teachers, local politicians, and the community-at-large. Many teams use email or newsletters.
10. **Encourage the students to look early into college scholarships offered through FIRST**. Some scholarships are awarded during the student's junior year.
11. **Have a pre-season and a post-season**. Pre-season is good for getting to know your teammates and encourages teamwork before the stressful build period. Suggestions for activities are Sumo Bots, egg crash cars, bridge designs, egg drops and a scavenger hunt with information about teammates. Try to attend off-season competitions run by teams and demonstrations like technology & community fairs.
12. Always bring a **cart** to competitions. Make sure the cart with the robot fits through a standard doorway. Build a cart so that your team can make repairs to the robot on the cart. At competition, especially the Championship, there is a lot of valuable time spent queuing for matches. Teams can use this time to make quick adjustments.
13. See if your school has students interested in **public relations** willing to write articles for the newspaper or videotape for the cable local access channel. Look to other clubs at school for help, such as DECA (marketing), FBLA (business), art club (banners, crate decorations, t-shirt design), photography club (for PR and scrapbook).
14. **Keep an historical archive of everything you do**. Keep a scrapbook. Take lots of photos, keep the buttons and t-shirts. Document everything your team does. This will help with your Chairman's award submission.
15. **Don't say you can't do it** just because you're a rookie team. Rookies and veterans are on level ground when it comes to imagination and ingenuity. Keep goals high.
16. **Start keeping track of your alumni as they graduate from high school**. Sponsors like tangible evidence that the FIRST program is actually inspiring students to pursue careers in engineering, science, & technology. Often alumni will return to help.
17. **Have parents, faculty, administrators, school board members, potential mentors and sponsors attend a regional competition**. Develop a VIP list. Often VIP's will be offered an official tour at competitions. It is very difficult to describe the energy at these competitions. You just have to be there!
18. **Have an adult mentor join NEMO** (Non-Engineering Mentor Organization). We host a private online discussion forum at [www.chiefdelphi.com](http://www.chiefdelphi.com), publish white papers, and hold workshops as we are able. Visit [www.firstnemo.org](http://www.firstnemo.org) for more information, including resources for rookie teams.

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*Jenny-007, Rich-103, Kathie-173, Steve-188, Ed-191, Jason-237, Mark-358, Justin-1212,*

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