Notes for Rookie Teams:

# Preseason:

* Get money DONE EARLY.
* Define a list of skills that people can practice/ research/ become expert at. Some skills:
  + Modeling in a 3-D CAD program ie. Solid works, Autocad
  + Programming and downloading onto the robot ie. Labview, Java, C++
  + Learn useful math computations: torque, pneumatics, motors etc.
  + And many more ☺
* Train new team members, so that by competition they are more self sufficient and don’t need as much assistance.
* Make sure everyone has a job and knows what they are meant to be working on. It helps to create a team hierarchy with small subgroups.
* Make a set of clearly defined goals and assign check points and due dates. It often helps to use a Gantt chart where you can track your progress.
* Try and stay productive all the time. People have lives. While it can be fun to fool around, people will get frustrated and attendance will drop.
* Keep your papers organized. Keep a binder or a digital library of useful information and reference documents.
* Start team applications at the beginning of the year. Solidify the team by Oct 1.
* Seek parent help! Often parents are willing to lend a hand and bring food/ snacks for the team.
* Create a detailed budget and update all expenditures.
* Go out as a team and have some fun! Team bonding helps ☺
* Plan summer workdays to train/ work etc. Many people go out of town, but those who are there often enjoy working on robotics etc. Summer is a great time for team building!
* Enquire about FLL teams in your community. And encourage elementary/ middle schools to make teams. You will learn a lot by mentoring them and FLL is a great feeder program for FRC!

# Build Season:

* Build the robot in CAD. This may take more time in the beginning, but it can get solve a lot of problems before they happen.
* Always do motor calculations and then choose carefully. It is a good idea that you don’t run a motor on more than 50% of its stall torque. You don’t want to burn out a motor.
* For any ideas, research what other teams have done in the past. See what they did wrong and avoid that.
* Read everything on chief Delphi. And post yourself if you have questions. The posts are very helpful.
* Make a countdown calendar so everyone on the team is aware of the time left. Six weeks goes by fast.
* Keep a clean work area and keep drawings etc in a binder for safe keeping.
* Make sure everyone feels important in their job. People who aren’t happy often distract other people for attention.
* Never get too confident, things don’t always work as planned. Allow yourself some buffer time.
* Follow up with people you put in charge of tasks. Ask them to reiterate what their job is so you know they know what they are meant to do.
* Double check to make sure the stuff you are buying is correct. Trips to the store and waiting on shipments eat up time.
* Print off inspection sheets and check off everything before the end of build season. There will be less stress at competition and you might get in more practice time.
* Weigh everything before it goes on the robot. Put one person in charge of keeping tabs on that.
* Have several drivers who are well practiced and can weave around other robots.
* Submit for lots of awards
* Make sure you have a working drive train and your robot is consistent. Practice as much as you can.

# Pre- Competition:

* Make about 500 buttons/ Come up with some other fun give-away! Always a lot of fun to trade at competition!
* Come up with travel schedule ahead of time.
* Create a packing list and label everything.
* Print business cards and paper give-aways (about your robot) to hand out to other teams

# Competition:

* Bring extra parts in case things break.
* Stay organized. Again, make sure everyone has a job.
* Always check batteries with a volt-meter before each round. Nothing more embarrassing than a dead robot.
* Plan for a functional and safe pit. Keep it tidy at all times.
* SPIRIT crew!!! Invite people! Keep people on their feet! Make banners, wave-able flag etc…
* Go talk to other teams and learn from them. Take pictures of their robots.
* Don’t forget to take a team photo with the robot.
* Scouting is a great idea! (have robot descriptions, functions, reliability etc)
* Work out strategy with other teams before the match.