

Tackling the Project: Getting it all Done On Time

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Key project steps:

- 1) Pick a real-world problem (2 weeks)
- 2) Look at existing solutions (2 weeks)
- 3) Design an innovative solution (3 weeks)
- 4) Share your results with others (2 weeks)
- 5) Create and rehearse a presentation (3-4 weeks)

"Some coaches do not realize quite how important the project is or how doing a bit each week makes it go so much better."

I am embarking on my 5th year as an FLL coach in the Western Pennsylvania region. In the 4 years I have coached, my kids have received Championship Awards in the project category twice, and in the core values category twice as well.

Timing the project. Count backwards from your final tournament date when scheduling your season, and then ensure that the kids stay on track! An approximate time line is provided on the left. Assign homework or devote an entire meeting session to the project if you need to catch up.

Read the judging rubric fully before starting. You need to understand what qualities an outstanding project include before starting, so that the kids don't waste too much time on tasks that are not deemed useful to the judges. Do not use the rubrics at every meeting as an outline of what to do: this would result in a lackluster project. Simply be aware, as the coach, of what things ought to be included (like field trips!) so that you can ensure that the kids have the opportunity to experience the breadth of the possibilities that a great project can provide.

Fitting the project in. Each group I have had has done their projects differently, but we always do a lot of group brainstorming, individual at-home research assignments, and sharing of research details with each other. We also vote on decisions, or else use consensus. I find it useful to have one hour per week devoted exclusively to the project throughout the entire season; since the kids on my team tend to have to drive a bit to get to my house, we conduct those meetings over Skype, with the occasional bit of project business done face-to-face during snack on robot day. With no robot to distract them, they can get quite a bit done in an hour!

How do you practice for the research presentation? By the end of the season, you want a "polished skit" and "presentation." Rehearse it a lot. What does this mean? Well, the presentation is 5 minutes long, including filing into the room and setting up any displays/props/equipment. At first, we don't use a timer, as we are focused on the kids clearly enunciating and correctly pronouncing the words on the script that they wrote. We tend to go through the whole skit at least 5 times per robot meeting during the last weeks of the season.

"At your qualifying event (which is sometimes as early as November), your team may not feel fully ready. It is perfectly okay to present work-in-progress and not to have your skit fully memorized. As long as the kids can clearly articulate what is still being worked on, then these incompleteness should be fine."

Once everyone has had a chance to say their lines out loud for pronunciation, we move on to trying to time them. We just stop the clock and tell them how long it took, and make suggestions about how to speed it up when it inevitably goes too long. Usually, efficiency at entering the room and setting up can be worked on; rarely, we will cut or shorten some lines.

The goal by the time of the final Championship Tournament is for the kids to be able to enter and set up, then do their presentation, while making great eye contact, and not referring to notes.

Research Q&A. At some point during the rehearsal stage of the season, we also divide the group up into "experts" about different types of information that could be asked about in the judges' Q&A time. The kids all know that if a question is asked about the age ranges of the team members, that Joe will answer, and if someone asks about the materials used in the solution, that Jane will answer. This way, they do not talk over each other when the judges ask them questions.

The Project offers a tremendous learning experience, and can be lots of fun! Just plug away at it a bit at a time, and make sure you stay on target. Have a great season!