

Finding and Utilizing Mentors

Overview:

FIRST is a very broad program with a many different areas to work within, the roles mentors play are key to the success of a FIRST team. Trying to run a FIRST team alone or with one other person will be very challenging and can potentially limit what a team can do. Mentors bring many skills and real world experiences into the team and work side by side with the students to overcome the many challenges a FIRST team will face. One should also keep in mind that mentors do not only have to be from an engineering field as there are many other aspects of a FIRST team that can benefit from non-engineering mentors.

Types of Mentors:

The first step in considering the type of mentors to recruit is to look at the skill sets you currently have involved with the team. For example, if you are an Engineering teacher you probably have many of the engineering areas covered but could use support with marketing/ PR, Graphic Design, Fundraising etc. On the other hand, if you are an English teacher you may need more support with engineering. Additionally, the more diverse your mentor team can be (having a mix of genders, ages, ethnicity's, experience and education) the more students you can attract to your team and the stronger it can be. Below is a list of some common mentor types to FIRST teams and the potential skills and/or services they can bring to your team.

Mechanical – Brainstorming, prototyping, CAD, material selection, project management, gearing/drive trains...

Electrical – Power distribution, wiring diagrams, sensors, project management, troubleshooting...

Software – Flow diagrams, logic, programming, project management, troubleshooting...

Finance/Fundraising – Grant writing, budgeting/accounting...

Marketing/PR – Communications, outreach, branding, marketing, social media...

Graphic/Web Designer – Web design, print design and layout...

General Support and Organization – Travel arrangements, material ordering, parent connection, transportation, chaperoning/supporting...

How to Connect With Mentors:

Once you have identified your needs for support you can start your search to fill in the voids. The more scouts and recruiters you have searching the better. Below are a variety of people that have the ability to mentor your team or offer connections to others that can.

Teachers – Invite other teachers from your school so they can see what FIRST is and how they

can help. Not only can they bring additional skills to the team but they can also help with the logistics of working after hours and traveling being school employees.

Parents – Hold a parent meeting to explain FIRST to them so they can understand what their children will be doing. At the same time you can ask for support; either directly from the parent or from a connection through a parent. Often parents have connections in industry and can help you recruit.

Friends – If you have friends in particular fields that could benefit the team you can ask them to support your team or ask if they have a connection that might be interested.

Professional Connections – Often schools have various connections to industry and are a great place to look for mentors as there is already a relationship setup.

Colleges and Universities – Many higher education institutions are familiar with FIRST and support it by encouraging students and staff members to mentor teams. Check with department leads to see if they are already involved or would like to be involved.

Regional Directors and Senior Mentors – Your local regional director and senior mentor/s are often making connections with companies that would like to mentor teams. If you are looking for specific mentors you should share this information with them so when they come across someone who fits your needs they know where to direct them.

Utilizing Mentors:

As you start to acquire mentors for your team the next question becomes how to best utilize them. The first question that often comes from potential mentors is 'what is the commitment' and is it a viable one but also a non-definitive one. Ultimately the commitment for mentors can be as little or as much as they would like and can do. We often tell mentors if they can give at least one hour a week that would be a help. The hope is as they get involved and see the impact of the program they will start to give more. The danger is scaring away a potential mentor by telling them that your team meets seven days a week. As most professionals do not have a lot of extra time you should be considerate of this. Below you will find two different approaches to utilizing mentors on your team.

Organic Approach – With this approach you can invite a mentor into your team, have them observe and ask questions to see what the team is doing and where they may need support. They can then identify areas that they would feel most beneficial to the team and they have the expertise to support. Often a team leader does not have the wealth of knowledge to know how to best use a mentor nor do they know what the mentor can offer. By using this approach you will often find that a mentor can get involved with the team in an area they are most comfortable with and can then branch out from there.

Structured Approach – If you know that your team needs support in particular areas you can create a list of mentor support with defined goals for each. This way when a mentor comes in

they can see where their expertise might best fit into the specific needs of the team. The benefit of this approach is that there are clearly defined expectations for the mentor.

With either approach it is good to have clear expectations and responsibilities for your mentors as this will help for a smooth and pleasurable experience for all. It is also a good idea to interview the mentor prior to letting them loose in the team as not everyone that is willing to help out will be a good fit for the team and the dynamics of the team.

Mentor Resources:

FRC Mentor Welcome Packet (link to http://usfirst.org/uploadedFiles/FIRST_Network/Volunteers/Mentors/Mentor_Welcome.pdf) – This a great resource of many links to useful information for your new mentor.

FIRST Mentor Guide (link to http://usfirst.org/uploadedFiles/Community/FRC/Team_Resources/Mentoring%20Guide.pdf) – This guide is a great resource for new mentors to become familiar with FIRST and roles and responsibilities they will have. It is a good idea to share this with any new mentors joining your team.

Non-Engineering Mentor Organization (NEMO) (link to <http://www.firstnemo.org/>) – This is a website dedicated to non-engineering support including mentoring.