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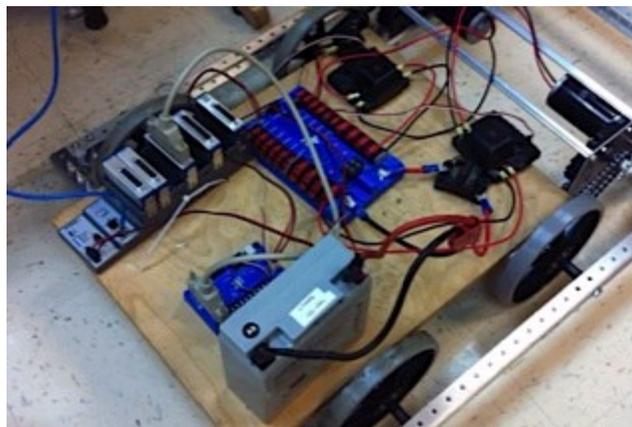
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**Building a Thriving  
Competitive  
Robotics Team**

**Basic Lesson Plan for  
Lessons Learned: Building a Competitive Robotics Team**



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# **Table of Contents**

**Why Service-learning 3**

**Project Extensions for Service-Learning 4**

**Project Description 5**

**Lesson Plan 6**

**FIRST Overview 9**

**APPENDIX: Web Resources and Sample Letter 22**

## **Why the Service Learning Approach**

If the Common Core State Standards (CCSS) are a roadway leading students to career and college readiness, service-learning is a vehicle for helping them get there in style.

Service-learning is a research-based teaching and learning strategy that engages youth in service to meet learning objectives and address real-world issues.

Below are some key traits of the CCSS and how service-learning correlates.

Demonstrating literacy with a variety of texts — As students investigate an issue, they read a variety of texts, such as primary documents, arguments, books, and charts. They use a variety of communication tools with diverse people and organizations. Applying learning to new situations, especially real-world contexts — By definition, service learning challenges students to demonstrate academic literacy through application in new situations, to solve a problem, or to carry out a project that address a real-world issue.

Knowledge and skills for success in college and career — Students engaged in service-learning work collaboratively, exercise communication skills and think critically as they use the service learning process to address the identified need. Students demonstrate social responsibility as they solve problems big and small, global and local. Engaging students in critical thinking and problem solving — The service-learning process engages students in investigation to analyze an issue, propose solutions, take action, and reflect on and evaluate their results and impact. Students encounter obstacles and opportunities that they work through with their peers, with guidance from teacher facilitators.

**Social Entrepreneurship is a form of service-learning!**

## **Project Extensions for Service-Learning**

Bell ringers for other math classes –

Have students create 3-5 word problems to use as a bell ringer to highlight various aspects of running a business. Some aspects that could be addressed are break-even point, profit margin, pricing, projected revenue, and social media marketing. This could be used around to emphasize observances such as Labor Day or Small Business Day. Students may also see businesses in the local community that they would like to make the students aware of.

Posters-

Have students design a poster posing a scenario or question using the statistical data or numerical facts. Posters can be distributed to other schools, community centers, and online.

Mini-workbooks-

Students can combine their efforts to create a mini-workbook to teach younger students about a how business work. The mini-workbooks can be used for peer-tutoring or teacher resources.

Websites-

Students can create a website that showcases the process of building their own business. It can be marketed on teacher resource websites and entrepreneurship websites.

Animations-

Students can use Xtranormal, GoAnimate, Toondoo or a similar to create a scenario that uses the statistics and numerical data in a solution to a business issue.

## **Project Description**

### Overview of Project

The inspiration behind this project comes from my experience in developing , building and mentoring a successful FIRST Robotics team. The process can be difficult to understand and many rookie teams struggle then give up within the first 3 years due to funding issues and the learning curve required to be successful.

This project harnesses the power of the FIRST robotics community to create and develop interest in STEM activities and careers. It challenges students solve problems creatively and work together to achieve common goals. Students who participate in FIRST robotics competitions usually do well in their math and science classes and become more comfortable demonstrating their STEM skills in front of other students. The FIRST competition also encourages teamwork and actually penalizes teams who do not seek alliances or to work with other teams. Teachers will want to adapt this project because it develop important STEM skills and naturally brings high and low achieving students together.

### Student Impact

Students who typically were not involved in STEM activities became more interested in STEM after participating on the robotics team. Students who had failed their core math class actually became engaged in robotics and began transferring their problem solving skills from robotics to the math problems they encountered in their credit recovery math class. These students successfully completed the credit recovery math course with A and B averages.

### Project Description

This robotics project will help students develop problem solving, teamwork, and 21st century skills, specifically the workshop for this project will provide teachers with a blueprint for starting and maintaining a thriving competitive robotics team. Students will learn how to build robotics using kits. For example, FIRST competition has a basic robotics kit that each team should start with. Students are then tasked with designing a robot using the kit and other creative materials to play the competitive game set by FIRST. Students begin by sketching designs based on their goals for the team robot. Afterwards, the team votes on the best design and begin gathering the parts that they need for that design. While waiting for the additional parts to arrive, students build a basic robot from the starter kit and practice driving the robot and playing the FIRST designated competitive game. Another activity that students participate in is demonstrating their robot in the community to others. Students also go to competition after building their robot. There are over 50 awards available in FIRST robotics competitions. Students must decide as a team which awards they would like to win and

devise a plan to achieve each one prior to going to competition. In the workshop, I will provide a step by step guide on how to build the team including team roles, fundraising ideas, team resources and robot design tips. Although the corresponding workshop is based on my experience as a FIRST mentor, I am willing to help teachers apply my lessons learned to any robotics competition program.

### Student Population

The robotics team should be comprised of 15-20 students, although more students can be involved in supporting the team. The workshop will be geared towards teachers of students in grades 9-12, with varying achievement levels. However, teams will need 4-5 students with a high aptitude in STEM disciplines. During competition season students will need to meet daily, but during off-season students may meet 1-2 times per week. This project can be adapted for grades 4-8, however I would suggest that the team be comprised of mostly high achieving students in that case.

### Materials

Students need robot building workspace; hardware kits; robotic kits, supplies and tools; and computers with Internet access. I will provide teachers with examples and a guide to developing a successful team that includes resources for step in the process.

### Additional Project Resources

This project involves field trips to mentoring organizations, fundraising locations and competition. Students need computers with Internet access and specialized robotics equipment that can be purchased with FIRST grant funds and contributions from parents, organizations and mentoring individuals. Robotics teams benefit greatly from mentors who have business, engineering and programming skills sets.

## **Basic Lesson Plan for Lessons Learned: Building a Competitive Robotics Team**

### Objectives:

Students will be able to build a robot that meets competition guidelines.

### Standards:

LAFS.1112.L.3.6

Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

MAFS.K12.MP.1.1

Make sense of problems and persevere in solving them.

MAFS.K12.MP.3.1

Construct viable arguments and critique the reasoning of others.

MAFS.912.S-MD.2.5

Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.

SC.912.P.12.5

Apply the law of conservation of linear momentum to interactions, such as collisions between objects.

### Anticipatory Set:

Show FIRST video of the last 3 years' games to give students an idea of how FIRST robotics competition works. Explain that every year FIRST creates a new game for robotics team to play in competition. Therefore the robot that is built by the team should be adept in playing this years' game. Ask students do they feel like they could build robots similar to the ones shown in the video.

### Discussion Questions:

What does it take to build a robot? Have you ever invented something? What would be easy about building a robot? What would be hard about building a robot?

### Introduction:

Explain to students that they will be developing their robot designs using math and technology. Ask the students how many of them wish they had their own personal robot and what would they want the robot to do.

### Procedures:

1. Have students list what tasks they would want their robot to perform
2. Have students draw sketch of their dream robot
3. Have students present sketch and specifically point out the robot's features that would enable it to perform the tasks they listed earlier, as well as what math and/or science would be used.

Closure: Relate the students process in this task to building a robot for competition. Discuss how the process of building a personal robot is similar to building a robot to play a competitive game.

## FIRST Overview

[FIRST<sup>®</sup>](#) stands for "For Inspiration and Recognition of Science and Technology."

It's mission: *FIRST<sup>®</sup>* designs accessible, innovative programs to build self-confidence, knowledge and life skills while motivating young people to pursue opportunities in science, technology and engineering.

### ***FIRST<sup>®</sup>* Robotics Competition (FRC<sup>®</sup>)**

In 1992 *FIRST<sup>®</sup>* began the [\*FIRST<sup>®</sup>\* Robotics Competition](#) with 28 teams and a single 14 x 14 foot playing field in a New Hampshire high school gym. Today, it has more than 2,000 teams participating nationwide and internationally, in over 60 [Regional events](#) and in a culminating [Championship event](#) in April of each year.



*FIRST<sup>®</sup>* Robotics Competition (FRC<sup>®</sup>) is a unique varsity sport of the mind designed to help high-school-aged young people discover how interesting and rewarding the life of engineers and researchers can be.

The *FIRST<sup>®</sup>* Robotics Competition challenges teams of young people and their mentors to solve a common problem in a six-week timeframe using a standard "kit of parts" and a common set of rules. Teams build robots from the parts and enter them in competitions designed by Dean Kamen, Dr. Woodie Flowers, and a committee of engineers and other professionals.

*FIRST<sup>®</sup>* redefines winning for these students because they are rewarded for excellence in design, demonstrated team spirit, Gracious Professionalism<sup>™</sup> and maturity, and the ability to overcome obstacles. Scoring the most points is a secondary goal. Winning means building partnerships that last.

What is unique about the FRC<sup>®</sup> program?

- It is a sport where the participants play with the pros and learn from them
- Designing and building a robot is a fascinating real-world professional experience

- Competing on stage brings participants as much excitement and adrenaline rush as conventional varsity tournaments
- The game rules are a surprise every year

Download more information about the [FIRST<sup>®</sup> Robotics Competition](#) (pdf)

Download the [FIRST<sup>®</sup> Robotics Competition Fact Sheet](#) (pdf)

How does the [FIRST<sup>®</sup> Robotics Competition Work](#) (pdf)

Learn more about the [FIRST<sup>®</sup> Robotics Competition](#) at the official [FIRST<sup>®</sup>](#) website.

### **FIRST<sup>®</sup> Tech Challenge (FTC<sup>®</sup>)**



The [FIRST<sup>®</sup> Tech Challenge \(FTC<sup>®</sup>\)](#) is a mid-level robotics competition for high-school students that launched in 2005. It offers the traditional challenge of a [FIRST<sup>®</sup> Robotics Competition](#) but with a more accessible and affordable robotics kit. The ultimate goal of [FTC<sup>®</sup>](#) is to reach more young people with a lower-cost, more accessible opportunity to discover the excitement and rewards of science, technology, and engineering.

Learn more about the [FIRST<sup>®</sup> Tech Challenge](#) at the official [FIRST<sup>®</sup>](#) website.

### **FIRST<sup>®</sup> LEGO<sup>®</sup> League (FLL<sup>®</sup>)**

[FIRST<sup>®</sup> LEGO<sup>®</sup> League \(FLL<sup>®</sup>\)](#) is an exciting and fun global robotics program that ignites an enthusiasm for discovery, science, and technology in kids ages 9 to 16. Each year [FLL<sup>®</sup>](#) teams embark on an adventurous Challenge based on current, real-world issues. Guided by a team coach and assisted by mentors, the kids research and solve a real-world problem based on the Challenge theme, present their research and solutions, and build an autonomous robot using engineering concepts.

Learn more about the [FIRST<sup>®</sup> LEGO<sup>®</sup> League](#) at the official [FIRST<sup>®</sup>](#) website.

## Junior *FIRST*® LEGO® League (Jr. FLL®)



The newest *FIRST*® program, Junior FLL® introduces the youngest students to the exciting world of science and technology. Just like FLL®, this program features a real-world challenge, to be solved through research, critical thinking and imagination. Guided by adult coaches, students work with LEGO® elements and moving parts to create solutions and present them for review.

Learn more about the [Junior \*FIRST\*® LEGO® League](#) at the official *FIRST*® website.

(FIRST

## Administrative Approval AND Support

A word of caution...you must obtain your administrator's support in addition to their approval. Give them an idea of some of the different activities you will need to engage in such as field trips, fundraisers and having volunteers in the building. Also, having access to the building after hours if your team gets in a pinch and needs to work extra or have a mentor/volunteer help after work.

## Team roles

It is important that each person on the team be given a specific role. Below are some suggested roles:

- **Team Leader** – Coordinates activities and helps things run smoothly. This person is not the “boss” of others on the team.
- **Builder** – Responsible for overseeing the building of the robot.
- **Programmer** – Responsible for overseeing all programming of the robot.
- **Quality Assurance** – Responsible for making sure the robot is built in a sturdy way and that everything produced by the group has a quality look.
- **Researcher** – Coordinates the research project conducted by the group.
- **Writer/Proofreader** – Responsible for the quality of the written material produced by the group. This person should not write the entire research paper.

Each person on the team should be familiar with all the other roles and able to perform the given tasks of that role. Everyone should work together as a team with specialists. A person also may fill more than one role, how it is more likely that you need multiple people with the same title specializing in one aspect, such a Builder focused on mechanical parts and a Builder focused on electrical parts.

## Recruiting

### Recruiting New Students to Your FIRST Robotics Competition or FIRST Tech Challenge Team

#### Publicity – In School

- Have teachers promote recruitment/robotics in class.
- Promote the non-technical (non-robot) side of the program – contact Art, Journalism, and English as well as Science and Technology classes. Approach clubs such as Future Business Leaders. Students with art skills can help with logo, website graphics and t-shirts designs; students interested in accounting can work on real-life budgets. Students with writing skills can work on marketing materials, media releases, etc.
- Work with administrators and teachers and schedule a short recruitment presentation in some of the classes.
- Create a week of recruitment, presenting to classes, having promos on morning announcements, manning a demo booth at the Back To School Night or Open House. Follow up with an orientation day. At the orientation, set up the different sections with a team lead to explain and show examples.
- Align with the sports teams and demo the robots at pep rallies (t-shirt cannons, carry football, shoot poofballs into baskets).
- Work to actively get the team name out there in the school community. Examples: car bashes, community service, charity drives, pep rallies, fundraisers such as LAN parties
- Purchase advertising in the school newspaper, theater playbill, band/choir concert programs, yearbook, PTO/PTA newsletter, school website.
- Start recruiting in the spring. Make sure to keep contact with those interested over the summer. If the team is doing a carwash fundraiser, let them know about it.
- If your team is attending a nearby off-season event, invite prospective students and parents to join you and get a feel for what the program is all about.
- Take advantage of school's newsletters that go to parents and write the word, SCHOLARSHIPS, in big bold letters.
- Have a freshman teacher show videos of your team at regionals (from SOAP or your team's own recording) to incoming freshmen during the first few days at school.
- Wear team shirts on specific day of the week.
- Hold a "women in science and engineering day" presentation. Invite female engineers from your corporate sponsor come and talk about their experience in science and tech.
- Be sure to keep school administrators and parents informed about team expectations (including time and financial commitments), requirements and events.
- Mentor a FIRST LEGO League team. Get them excited when they are young and build a productive flow of new members.
- Create informative flyers and posters that appeal to high school age students!

## Demos

- Schedule robot demos at local middle schools and at freshman orientation.
- At the demo, have a shooting or driving contest. Anything hands-on will get people more involved and more interested! Allow potential recruits to try out driving the 'bot.
- Show a video of this past season's competition. Get a match off of NEED URL soap108's website; show parts of the video from kick-off.
- Ask potential recruits to sign up for more information. Contact them and schedule a follow-up meeting for the following week. That will give you a good idea of how many people are \*really\* interested.
- Intrigue them with the most exciting parts of FIRST and don't drag them down with too much technical stuff until they're already hooked onto FIRST.
- Showcase trophies/banners.
- Provide lots of team members to talk to both boys and girls, and their parents. Coach the team in advance about "talking points" and "elevator speeches".

## Publicity – In Community

- Check with local Chambers of Commerce for calendar of events in town; contact the event planner to see if you can demo robot and have booth space at no cost. Use your robot to "deliver" cases of soda for events.
- Hold robot driving contests at events.
- Participate in parades.
- Visit local community organizations, hospitals and nursing homes, civic organizations, school groups to do demos. Plan "photo ops" in advance (robot with mayor, etc.) and be sure to have a press release about your team (with all the correct facts!) to give to media.
- Prepare press release about team customized for each competition you will attend, along with a list of media contacts. You can easily update it on the spot if you win an award and fax it to the news desk. More media attention generates more interest in the team, which makes recruiting students, mentors and sponsors easier!

## Meetings

- All students and parents should be notified of financial expectations/requirements and time commitments and the team's tentative competition/travel schedule at one of the very first meetings of the year.
- If the team holds meetings over the summer, make sure people know about it!
- At the beginning of the next term, hold an orientation, get-to-know-you meeting. Do team-building activities to help rookies and vets mingle a bit!
- Make certain new sign-ups are aware of upcoming meetings and are registered on the team website and team email groups.
- Any kids from FIRST Lego League teams coming? Give them a special welcome.

- Let students make the presentations/do the demos. Mentors are in the background as back-up.
- Explain the season timeline (especially if you are a “year-round” team).
- Explore the school calendar so you know in advance if SATs or other mandatory tests may occur during the Build or competition season, or if another school group has an important trip happening at the same time. Be sure to bring to students’ and parents’ attention at an early team meeting to help avoid later conflicts.
- Show videos of competitions so they know what an exciting program FIRST is!
- Create a team brochure with pics of the team and robot and important stats and contact numbers to distribute.
- Handouts should include the website information, the general calendar/schedule for the team, travel expectations, and information regarding the team support such as the sponsors, the booster group and how parents can join, and what the meeting expectations are. Include additional team requirements such as volunteer service hours. Some teams may require students to perform community service hours or attend a certain number of team meetings in order to qualify for travel. If you distribute this information during your week of recruitment, you help prevent the shock of 'oh wow, this is a big time commitment' – especially to the parents. Include information about car pools. If your team requires each student to supply a team meal during Build Season include these details also.

## Signing up for FIRST Competition

### 2016 Rookie Team Criteria

The formation of new *FIRST*<sup>®</sup> Robotics Competition (FRC<sup>®</sup>) teams is critical to *FIRST* Founder Dean Kamen's vision of changing the culture, and creating the spirit of Gracious Professionalism<sup>®</sup> that is open and friendly to new participants. We recognize the commitment teams and mentors must make to get a first year team "off the ground" and for this reason *FIRST* grants qualifying first-year teams "Rookie" team status, which comes with specific incentives and recognition including:

1. **Rookie All-Star Award** - Celebrates rookie teams successfully implementing the mission of *FIRST* and having strong partnerships;
2. **Rookie Inspiration Award** - Celebrates rookie teams outstanding success in advancing respect and appreciation for engineering and engineers;
3. **Rookie Grants** - to help first year teams get financially off the ground. For more information regarding Rookie Grants, please click on the following link: <http://www.usfirst.org/roboticsprograms/frc/available-frc-grants>

As *FIRST* continues to grow and teams expand in existing *FIRST* areas, it is important for us to have guidelines for qualifying as a "Rookie" team. For the 2016 season, these guidelines are:

1. A new team that starts in a school/organization/alliance that has never run a FRC team before would be considered a Rookie (note: most teams are formed within a single school, but some comprise two or more schools, or are organizations such as Scouts, Boys & Girls Clubs, home schools, etc.).
2. A returning team that has not been in a competition for three years would be considered a Rookie; that is, going into the 2016 season, the team cannot have competed in seasons 2015, 2014 or 2013. Teams, whose last competition season was 2012 or earlier, can return during the 2016 season as a Rookie with a 2016 Rookie team number, OR, they can continue as a veteran with their original team number. Teams that choose to register as a veteran *are not* eligible for the above listed Rookie incentives and recognition.
3. Where multiple schools were combined into a single team, and that team now wants to separate into different teams, or any single team wants to separate into different teams, the new teams do not qualify as Rookies unless the requirements set forth above in 2 are met. These teams will need to register as a "new" team in the [Team Information Management System \(TIMS\)](#) by clicking on the Create/Re-establish a Team link, and following all steps accordingly. See [2016 Team Combines and Separations](#) for additional details.
4. Where multiple existing teams want to combine into one team, the new team does not qualify as a Rookie unless the requirements set forth above in 2 are met. The team will need

to register as a "new" team in TIMS by clicking the Create/Re-establish a Team link, and following all steps accordingly. See [2016 Team Combines and Separations](#) for additional details.

5. If a mentor or teacher from an existing team leaves and starts a team at a new school, that team does qualify as a Rookie team.

6. If individual students who have been involved in a team leave that school and start a team in their new school that team also is generally considered a Rookie providing it meets condition 1, and does not involve sufficient students to be considered a version of condition 3. As a maximum, the number of students in the new team that have competed in prior teams must not exceed 5.

It is important to remember that these are guidelines only and *FIRST* will review special situations on a case-by-case basis as they are brought to our attention. Teams that do not meet the guidelines and wish to submit a petition for Rookie Status may do so by writing to us at [frcteams@usfirst.org](mailto:frcteams@usfirst.org). We ask the following be added to the subject line: "**Request for 2016 Rookie Status**" along with a full description of the situation.

# Applying for FIRST Grants

## W-9, Regranting Policy and Procedure

### **Submittal of IRS Form [W-9](#) by all U.S. Based Teams**

Every **U.S. based team receiving funding from a Donor (Grantor)** must submit an IRS Form W-9 to *FIRST* Finance. Click here for an [IRS W-9 Form](#) 

#### **The IRS Form W-9 must:**

1. Have been dated within five years
2. Contain the Federal Tax Identification number (FEIN) of the organization willing to accept any funds on behalf of the team
3. Be signed and dated by an authorized representative of the organization

#### **Please Note:**

- This is not a State Tax Exempt number.
- *FIRST* cannot accept any IRS Form W-9 from an individual. We apologize for the inconvenience.
- It is the responsibility of the team to inform *FIRST* of any changes to their IRS Form W-9.

## Regranting Policy

*FIRST* receives grants from various Donors (Grantors) which are designated to *FIRST* Robotics Competition (FRC) participating teams. These are restricted donations with designations as defined and imposed on *FIRST* by the Grantor(s). Should *FIRST* receive a grant designated to your FRC Team, *FIRST* will “re-grant” the funds to your FRC Teams as a “pass through” grant with no deductions for overhead or processing costs. 100% of the designated funds will be re-granted provided that the Team (Grantee) follows the guidelines listed below.

The following guidelines are followed when processing a regrant for a team:

1. The regrant must be a minimum of \$1,000 for FRC; \$500 for Jr.FLL/FLL/FTC.
2. *FIRST* receives the Grantor’s donation and designation in writing. ***FIRST* applies the amount needed to satisfy the open payment of the team’s registration fee before any regrant can be issued.**
3. Any additional funds, above the team’s registration fee (some restrictions may apply) can be regranted to the team.
4. The Grantee (FRC Team) initiates the process of receiving these pass through funds and maintains audit compliance\*.

Funds can only be re-granted to your team for costs directly associated with the *FIRST* Robotics Competition. *FIRST* cannot disburse funds directly to the Team's or School's vendors/providers due to the IRS Form W-9 needs and the potential volume.

\*Should the Grantor request a follow-up report on the exact use of the re-granted funds, it is the responsibility of the Grantee (School) to maintain adequate records in order to provide an accurate accounting.

Regranting Procedure

Click here to [access the online regrant application.](#)

### **Introduction to Team Grants**

Team grants are sponsor-directed funds that are distributed by *FIRST* Headquarters. If you receive a grant, please make sure to read the sponsor's instructions carefully. Each sponsor has different requirements.

Depending on the grant, the funds can cover:

- Registration
- Product
- Expenses

### **Why Apply?**

We encourage all teams to apply for grants. Grants can help create lasting relationships with organizations that sometimes provide:

- Mentors for your team
- Expert advice
- Internships

### **Things to Keep In Mind**

Receiving a national grant can be a competitive process, with each sponsor evaluating teams based on different criteria. Submitting a grant application does not guarantee funding for your team. In fact, only about 50 percent of teams receive a national grant during a typical FRC season.

Relying on grant funds that you have not received yet can get your team into a tricky financial situation. While you are waiting to learn the status of your grant application, we recommend working on a backup plan. There are many other ways you can raise funds for your team. Some resources include:

- [Regional Director](#)

### **Other Important Links**

- [Team Grants Frequently Asked Question Page](#)

## Gathering Volunteers

Providing your club or team with a strong support non-engineering mentor base enables your primary mentors to focus on projects that are of most interest to them. Learn how to recruit and retain parent and professional mentors to help your team with support areas such as administrative, travel, fundraising and public relations.

- Establish goals
- Recruit
- Interview
- Retain
  
- Set goals for team, define “needs”to accomplish those goals
  
- Create “wish lists”–one for mentoring assistance needs and one for equipment needs
  
- Every team member should have copy; distribute at all events/demonstrations/ fundraisers
  
- Mentor/ Volunteer Recruiting sources:
  - School: teachers, coaches, support personnel
  - Parents: establish communication with them!
  - Local businesses :School/Business partnerships; Career Day/Job Shadowing volunteers; Human Resources departments; Chamber of Commerce; Civic organizations –Local chapters of professional societies
  - Local colleges and universities
  - Volunteer organizations
  - AARP
  - Advertise in local newspapers often
  - Have weekly column for volunteer opportunities
  - Word of mouth
  - Most of all NETWORK and use parents and other partners' networks!
  
- Don't hesitate to interview potential mentor
  - Explain expectations, time and financial commitments; goals of organization
  - Mentor must be a good “fit”to be successful partnership
  - Solicit feedback from students and other mentors to head off any problems
  - Address issues promptly; don't hesitate to admit when a mentor “isn't working out”
  
- Retain mentors by
  - thanking them often

- Thank the company or organization they are from; let management know about the wonderful job their employee is doing with your team
- Invite mentor's company/organization to visit to see the program in person; invite mentors' family to visit also
- Mention mentors in any public relations/media stories you do
- Recognize signs of burnout and try to offload work –Plan some "fun"activities with team to relieve stress –Plan some activities just for mentors

## **Soliciting Sponsorship**

Use a letter similar to the example in Appendix and request specific items such items on the "25 Ways Sponsors Can Help Your Team". Also consider crowd-funding to aggregate small donations.

## **Getting Help from Mentoring Teams**

Contact a Regional Director and find ou the nearest schools with veteran teams that are willing to help. My team worked with Charles Kennedy and Atlantic Tech HS in Coconut Creek, FL. They were both instrumental in our success as a team financially and competitively.

*Regional Director*

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# APPENDIX

## Web Resources

<http://www.usfirst.org>

<http://www.chiefdelphi.com/forums/portal.php>

<https://www.youtube.com/user/teaminbox341>

[http://www.firstnemo.org/PDF/25ways\\_to\\_sponsor.pdf](http://www.firstnemo.org/PDF/25ways_to_sponsor.pdf)

## Sample Sponsorship letter

October 4, 2010

RE: Food donation

To whom it may concern:

My name is Tandy Caraway and I am the coordinator of service learning projects at Miami Killian High School. The goal of our service learning projects is to inspire our students to excel academically while applying their classroom knowledge to meet real needs in our community. Our students go out in the community and use their math knowledge to serve others by building, designing, improving and constructing much needed items for clients such as a local foster home, low income needy families and elderly individuals. We have inspired other schools to go out and do the same in their communities. As such, we will be hosting a service learning training for three other new formed service learning groups on October 29, 2010.

We would greatly appreciate a donation of food to provide lunch for the students being trained. We are trying feed 80 students a lunch consisting of hamburgers/sandwiches, chips and beverages. We estimate that an in-kind donation of \$200 worth of food products will be more than sufficient to meet our needs.

Last year, we gave over 3,000 hours of service to the community as a small group and we are planning to more than double that number. *Imagine* the impact of us inspiring and challenging three additional student groups to do even more service hours. We will happily make a sponsorship banner with BJ's name on it to display on the day of the training event and include BJ's in our newsletter and website for our parents and students. I would like to thank you in advance for your time and consideration. I can be reached using the contact information below my signature.

Sincerely,

Service Learning Coordinator



# **APPLY FOR AN IMPACT II ADAPTER GRANT!**

M-DCPS teachers, media specialists, counselors or assistant principals may request funds to implement an IMPACT II idea, teaching strategy or project from the Idea EXPO workshops and/or curriculum ideas profiled annually in the *Ideas with IMPACT* catalogs from 1990 to the current year, 2015-16. Most catalogs can be viewed at The Education Fund website at [www.educationfund.org](http://www.educationfund.org) under the heading, "Publications."

- Open to all K-12 M-DCPS teachers, counselors, media specialists
- Quick and easy reporting requirements
- Grants range from \$150 - \$400
- Grant recipients recognized at an Awards Reception

To apply, you must contact the teacher who developed the idea before submitting your application. Contact can be made by attending a workshop given by the disseminator, communicating via email or telephone, by visiting the disseminator in their classroom, or by having the disseminator visit your classroom.

Project funds are to be spent within the current school year or an extension may be requested. An expense report with receipts is required by May 2, 2016.

**APPLICATION DEADLINE:  
December 11, 2015**

Apply online at [www.educationfund.org](http://www.educationfund.org)

**For more information, contact:**

Edwina Lau, Program Director

305.558.4544, ext. 113

[elau@educationfund.org](mailto:elau@educationfund.org)

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