FIRST®LEGO® LEAGUE 2012

Senior Solutions℠

Independent. Engaged. Connected.

Project Judging Pre-Tournament Preparation Pack

Consolidated Qualifier Edition

FLL
FIRST®*LEGO*®*League*
www.firstlegoleague.org

FLL Core Values

We are a team.

We do the work to find solutions with guidance from our coaches and mentors.

We know our coaches and mentors don't have all the answers; we learn together.

We honor the spirit of friendly competition.

What we discover is more important than what we win.

We share our experiences with others.

We display Gracious Professionalism in everything we do.

We have fun.

10 Things to Know As an FLL Judge

Please be sure to check out www.firstlegoleague.org for additional information, including Judging and other official Q & A from throughout the season:

Robot Game Updates: http://firstlegoleague.org/media/twocol.aspx?id=268
Project FAQ: http://www.firstlegoleague.org/media/twocol.aspx?id=314
Judging Questions: flljudge@usfirst.org

Thank you for agreeing to be a judge with *FIRST*® LEGO® League. The information in this packet is designed to help you prepare as an FLL Judge this season. It is intended to offer background information that will be useful to review prior to your tournament. You should also participate in training sessions that may be offered through your local tournament organizer and/or FLL. We hope your experience as an FLL Judge is rewarding and enjoyable!

10. Have fun – you and the kids
The most important thing to know about an FLL tournament is that it is supposed to be **FUN**. The mission of *FIRST* is to get kids excited about science and technology. A competition is a celebration of what the children have accomplished throughout the season. It should be serious and competitive, but not so much that the fun is lost.

9. Exhibit Gracious Professionalism and honor FLL Core Values
These are the basic foundations of *FIRST* LEGO League, and should always be at the forefront in everyone's minds. We offer specific awards to recognize FLL Core Values excellence, but a significant concern can impact team eligibility in *any* award category.

8. Be a good role model for technology and engineering careers
Give the kids a chance to see what makes engineers, scientists, computer programmers and educators special.   Share your experiences without sharing your agendas.   Be professional – show the kids that what they have accomplished is appreciated and valuable. Show interest in their presentations and discussions, and be personable.

7. Respect the children
Please keep negative comments to yourself, away from the ears of the kids, parents, and coaches. All teams should be given the benefit of the doubt when questions arise about adult involvement. If you suspect the kids did not do the work, it is your job to probe further to prove it, rather than assuming that the kids did not do the work. Remember that these are kids who worked hard all season to make it to the tournament. Treat their accomplishments with respect, and be sure that other judges do so as well. One negative comment from a judge can have a devastating effect on teams. Make it your goal as a judge to ensure that the teams know what they did well, and that they have a positive experience showcasing their achievements.

6. Respect the judging process
Stay on schedule.   The kids have a more challenging schedule than you do.   Remember the FLL awards philosophy. Remember that the whole judging process is subjective.   Concentrate on providing a great experience for the kids and try not to get caught up in the mechanics of the process. Do not share scores or awards discussions with the kids, coaches or parents.

5. Evaluate teams completely and fairly
Each rubric is designed to evaluate many areas of a team's performance, and gives equal weighting to several factors tied to specific awards. All Core Awards are of equal importance, except for our Champion's Award that recognizes all-around excellence.   Be objective, both on a team-by-team basis and a total rubric evaluation basis.   Familiarize yourself with the levels of achievement. Identify any conflicts of interest you have before the competition, and refrain from involving yourself in discussions about any team when you have a conflict.

4. Consider age appropriateness and experience
Consider age when evaluating teams.   Certain skills, knowledge, and capabilities are more likely to be exhibited by the kids as they get older and more experienced in general and in FLL in particular. You may also see rookie teams that are more polished and understand FLL better than experienced teams.

3. Reward excellence and celebrate achievement
For a team to be considered for an award, they should be evaluated at an Exemplary level of achievement in that category whenever possible. Award distribution is spread as equitably as possible among the teams, with the goal of no team winning more than one judged award.

2. Provide specific and constructive feedback
Please be specific when providing feedback comments to teams.   This will also help when it comes to awards deliberations – specific examples are very helpful when differentiating between teams. "This team's willingness to help other teams (by providing programming mentorship, for example) is exemplary" is more descriptive and helpful than "that team was so nice and polite and exhibited gracious professionalism." Take lots of notes if you need to!

1. See #10 again!

Project Judging Primer

Project judging in FLL can be compared to research presentations given at a scientific conference, except FLL project presentations are typically a whole lot more fun! Teams present a challenge-related problem they have researched and analyzed. They also present their innovative solution to that problem, and tell about how and with whom they shared their research. These steps parallel the scientific research process in the "real world". All of this information is communicated in a creative presentation to the judges that takes no more than 5 minutes, including setup time.

As a Project judge, here are some overall things to consider:

- To be eligible for any Project awards, teams must demonstrate that they have completed all three components of the Project: problem identification, development of an innovative solution, and sharing of the project with others.
- Make sure that teams also complete any additional challenge-specific requirements. For example, in the Power Puzzle season, teams had to perform an energy audit as a part of the Project.
- Innovation and creativity are considerations in several of the Project rubric criteria. Try not to overly penalize a team for a solution they present as original, but that you know is already being considered or implemented. Different judges may also have very different knowledge levels of state-of-the-art science relative to the Project. If you are aware that their solution already exists, make it known to them in a respectful, gentle manner, and MAKE SURE you provide them that feedback.

Now let's take a closer look at the criteria and provide some guidance about what to look for and consider:

Research

Problem Identification – For teams to rate Accomplished or higher, they must be able to clearly articulate a well-defined problem statement. Sometimes teams will present a set of issues related to the challenge but not focus on a specific problem. For example, global   limate change is a very broad problem that could have many causes. A more specific and well defined problem that would make a more appropriate FLL Project might be something like reducing greenhouse gas emissions from coal burning power plants.

Sources of Information – The key things to look for here are quality, variety and number of sources. Accomplished teams should include at least one professional they have communicated with as a source. Note that books or news articles or magazines that a team reads via the internet should be considered as three different types of sources. Exemplary teams will consider a wider vari   ty of good quality sources as well as seek out and learn from professionals. Professionals are considered to be people who have specialized knowledge about a particular area. For example, a biomedical engineer might be considered a professional when it comes to research concerning robotic arms used to replace lost limbs. Another example could be a shipping logistics manager who is consulted when researching how food is shipped long distances while still maintaining quality.

Problem Analysis – Accomplished teams will analyze a problem sufficiently to form their own conclusions. For example, a team that performs its own tests of various ice melting materials to determine their effectiveness when researching the problem of motor vehicle movement in snowy and icy climates is a good example of a team performing its own analysis.

Review Existing Solutions –Teams should perform a good faith effort to review existing solutions and determine the originality of their solution. Teams are not expected to perform an exhaustive literature search including the very latest scientific journals to determine originality.

Innovative Solution

Team Solution – Similar to the Problem Identification requirements, the team's solution should focus directly on the problem they are trying to solve, explain how it solves that problem, and be clearly stated.

Innovation – The main issue of subjectivity here surrounds the question "What does 'original' mean when it comes to innovation?" A team may develop a truly innovative device to assist someone who is blind, or they may come up with the idea to apply Velcro to walls to serve as a sensory guide; both are innovative. Teams will sometimes believe their solution to be something they've developed on their own only to find out from an expert judge that some other group has already developed that same solution. They may also find this out days before the competition and not have time to develop a new, completely original solution. Be sensitive to these situations. A team does NOT have to develop a completely new, patented by the team idea to be considered for this award or to score high in this area. Note that FLL has a separately judged, non-event based award called the Global Innovation Award for teams that choose to pursue a patent opportunity.

Implementation – Teams should demonstrate that they have considered how their solution might be implemented. Team solutions should be more grounded than pie in the sky, but solutions need not be implementable now. For example, a team should not be penalized for a solution that may require the invention of an additional component to be workable. While not required, a team that builds a prototype of their solution should most likely be considered Exemplary, provided they consider other aspects of how to implement their solution.

Presentation

Presentation Effectiveness – Look for well-organized presentations that clearly deliver the message. Note that the presentation MUST demonstrate all three of the project aspects. It is not sufficient to cover Sharing (for example) only during the question and answer part of the judging session.

Creativity – This criterion is probably the most subjective one for Project judges. Creativity is different for different people. Look for presentations that stand out, are more entertaining, make you want to listen to the message more and serve to enhance the delivery of the message instead of distract from it.

Sharing – The two main considerations here are "Did the team consider who might benefit from their solution, and share it with them?" and "Did the team go beyond their comfort zone to share their ideas?" The first consideration focuses on encouraging teams to share with a relevant and targeted audience, for example presenting a new insulin delivery system to kids with juvenile diabetes. The second consideration focuses on encouraging teams to share their information with people they don't know so that they can become comfortable speaking about their ideas with anyone. Note that a team does not necessarily have to share its FLL competition presentation with outside groups; they may share the information and their solution in any manner they wish.

FLL
FIRST LEGO League

Project
Consolidated Award Structure

Team Number
Judging Room

Directions: For each skill area, clearly mark the box that best describes the team's accomplishments. If the team does not demonstrate skill in a particular area, then put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. *When you have completed the evaluation, please circle the awards for which you would like this team to be considered.*

	Beginning	Developing	Accomplished	Exemplary
Research				
Problem Identification * Clear definition of the problem being studied				
ND	unclear; few details	partially clear; details missing	mostly clear; detailed	clear; very detailed
Sources of Information Types (e.g. books, magazines, websites, reports and other resources) and number of quality sources cited, including professionals in the field				
ND	one type of information cited; minimal sources	two types of information cited; several sources	three types of information cited; many sources, including professionals	four(+) types of information cited; extensive sources, incl. professionals
Problem Analysis Depth to which the problem was studied and analyzed by the team				
ND	minimal study; no team analysis	minimal study; some team analysis	sufficient study and analysis by team	extensive study and analysis by team
Review Existing Solutions Extent to which existing solutions were analyzed by the team, Including an effort to verify the originality of the team's solution				
ND	minimal review; no team analysis	minimal review; some team analysis	sufficient review and analysis by team	extensive review and analysis by team

Comments:

	Beginning	Developing	Accomplished	Exemplary
Innovative Solution				
Team Solution* Clear explanation of the proposed solution				
ND	difficult to understand	some parts confusing	understandable	easy to understand by all
Innovation Degree to which the team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way				
ND	existing solution/application	solution/application contains some original element(s)	original solution/application	original solution/application with the potential to add significant value
Implementation Consideration of factors for implementation (cost, ease of manufacturing, etc.)				
ND	minimal factors considered	some factors considered	factors well considered; some question about proposed solution	factors well considered and feasible solution proposed

Comments:

	Beginning	Developing	Accomplished	Exemplary
Presentation				
Sharing* Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts				
ND	shared with one individual	shared with one group	shared with one individual or group who may benefit	shared with multiple individuals or groups who may benefit
Creativity Imagination used to develop and deliver the presentation				
ND	minimally engaging OR unimaginative	engaging OR imaginative	engaging AND imaginative	very engaging AND exceptionally imaginative
Presentation Effectiveness Message delivery and organization of the presentation				
ND	unclear OR disorganized	partially clear; minimal organization	mostly clear; mostly organized	clear AND well organized

Comments:

*Required for Award Consideration

What to Expect as a Judge

Day of the Event

Before Judging Sessions

- Meeting with the Judge Advisor to review
  - Event schedule
  - Judging procedures
  - Judging Deliverables
  - Last minute items
- Meet your judging partner(s) and the rest of the panel
- Attend the Opening Ceremonies

During Team Evaluations

- Interview teams
- Make sure sessions stay on schedule
- Evaluate each team according to rubric criteria and note constructive comments
- Keep additional notes of team specifics if needed
- Note and report:
  - cases of adult intervention
  - demonstrations of GP & FLL Core Values

During Deliberations

- Submit award nominations and rankings by your judging pair
- Participate with all area judges to determine award candidates/merged preliminary ranking
- Work with judges of other categories to determine the Champion's Award winner(s)
- Work with all judges to finalize remaining awards and prepare scripts

During the Awards Ceremony

- Attend the Awards Ceremony (if possible)
- Help distribute medals, awards and other team recognition
- Join the high-five line, congratulate all teams and have fun!
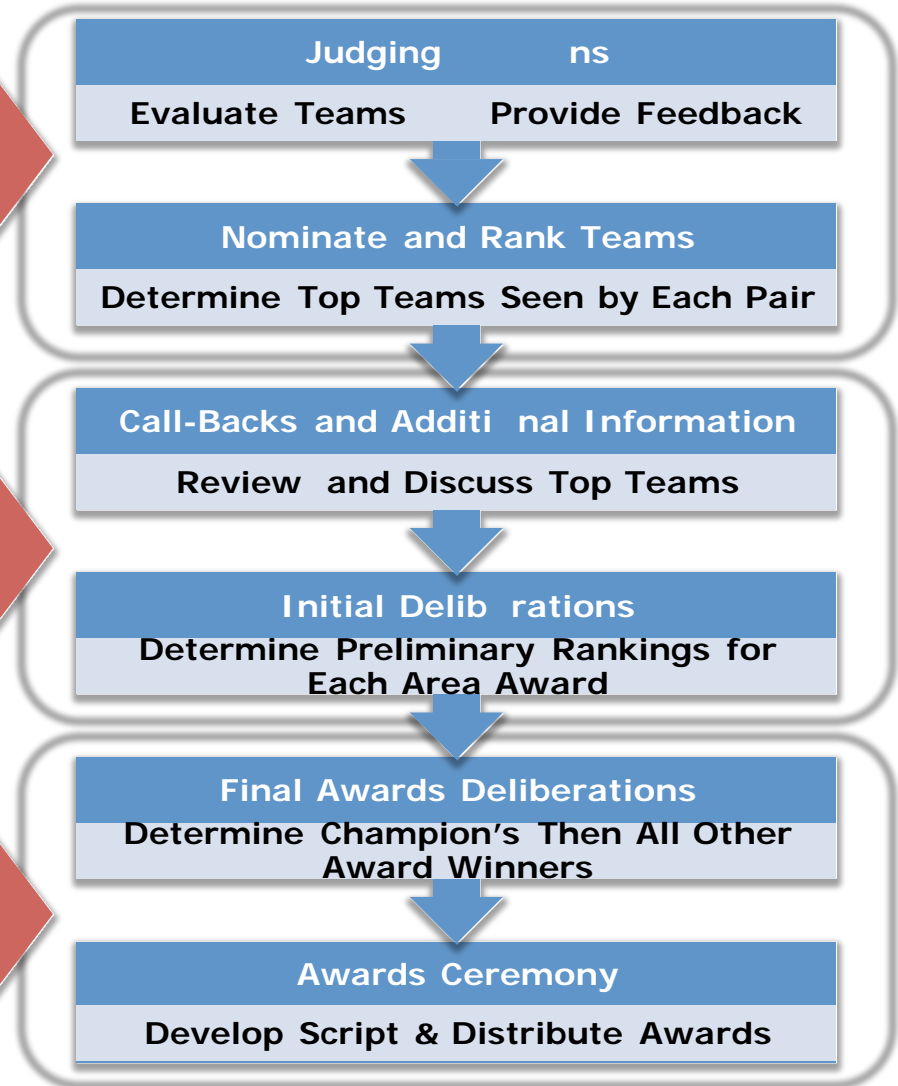
Judging Process

You will work with other judges throughout the tournament using FLL's process to evaluate teams and determine awards

Note that you may work with different judges at different times

Judging Pairs

Three Judging Areas

All Judges

Judging ns
Evaluate Teams   Provide Feedback

Nominate and Rank Teams
Determine Top Teams Seen by Each Pair

Call-Backs and Additi nal Information
Review and Discuss Top Teams

Initial Delib rations
Determine Preliminary Rankings for Each Area Award

Final Awards Deliberations
Determine Champion's Then All Other Award Winners

Awards Ceremony
Develop Script & Distribute Awards

Judging Process

Team Evaluation and Feedback

Awards Deliberations
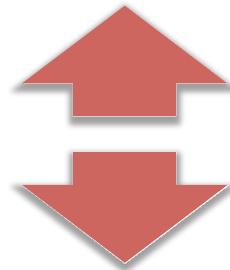
During **Team Evaluation and Feedback**, the focus of the judges is on evaluating each team and providing them with constructive feedback

During **Awards Deliberations**, the focus of the judges is on determining the teams worthy of awards and recognition

Judging   ns
Evaluate Teams   Provide Feedback

Nominate and Rank Teams
Determine Top Teams Seen by Each Pair

Call-Backs and Additi   nal Information
Review and Discuss Top Teams

Initial Delib rations
Determine Preliminary Rankings for Each Area Award

Final Awards Deliberations
Determine Champion's Then All Other Award Winners

Awards Ceremony
Develop Script & Distribute Awards

FLL Core Awards-Consolidated Qualifier Structure

Champion's Award

This award recognizes a team that embodies the FLL experience, by fully embracing our Core Values while achieving excellence and innovation in both the Robot Game and Project.

Project Award

This award recognizes a team that excels across the Research, Innovative Solution and Presentation categories. This team utilized diverse resources for their Project to help them gain a comprehensive understanding of the problem they identified, develop a creative, well-researched solution and effectively communicate their findings to judges and the community.

Core Values Award

This award recognizes a team that excels across the Inspiration, Teamwork and Gracious Professionalism® categories. This team displays extraordinary enthusiasm and spirit, knows they can accomplish more together than they could as individuals, and shows each other and other teams respect at all times.

Robot Design Award

This award recognizes a team that excels across the Mechanical Design, Programming and Strategy & Innovation categories. This team uses outstanding programming principles and solid engineering practices to develop a robot that is mechanically sound, durable, efficient and highly capable of performing challenge missions.

Robot Performance Award

This award recognizes a team that scores the most points during the Robot Game. Teams have a chance to compete in at least three 2.5 minute matches and their highest score counts.

Judges Awards

During the course of competition the judges may encounter teams whose unique efforts, performance or dynamics merit recognition. Some teams have a story that sets them apart in a noteworthy way. Sometimes a team is so close to winning an award that the judges choose to give special recognition to the team. Judges Awards allow the freedom to recognize remarkable teams that stand out for reasons other than the Core Award categories.

Examples include:

Against All Odds *or* Overcoming Adversity *or* Perseverance

This award goes to the team that improvises and overcomes a difficult situation while still making a respectable showing, with an attitude that shows, "We can overcome incredible odds if we never give up, no matter what!"

Rising Star

This award recognizes a team that the judges notice and expect great things from in the future.

Special Recognition Awards

Outstanding Volunteer Award

The FLL program would not exist without its volunteers. This award honors an extraordinary volunteer(s) whose dedication to the FLL program has a positive impact on the team experience.

Adult Coach/Mentor Award

Many teams reach significant milestones thanks to their close relationship with an adult mentor. This award goes to the coach or mentor whose wisdom, guidance, and devotion are most clearly evident in the team's discussion with the judges.

Young Adult Mentor Award

FLL presents this award to the young adult, high school or college mentor whose support, impact, inspiration, and guidance are most clearly evident in the team's discussion with the judges.

Project Sample Questions

<u>Research</u>

Problem Identification
- How did your team decide which problem to study?
- Describe the problem your team selected in three sentences or less.
- What are the most important things to understand about the problem that you studied?

Sources of Information
- What resources did you use to research your problem and why did you choose these?
- Did you use any unusual methods to research your topic? If so what and why?
- Did you speak to anyone whose work relates to the Challenge area? What did you learn from them?
- What was the most helpful resource that your team used? Why?
- If you had to start your research over, which resource would you use first? Why?

Problem Analysis
- How did your team organize and use its research?
- After working on this project, what is the most important thing that your team learned?
- Can you tell us about a problem you discovered or something that you learned that surprised you while completing this project?

- Review Existing SolutionsAre you aware of anyone else who has studied the problem you chose?
- How have other people tried to solve the problem you identified?
- Did the information you found offer different ideas than what you expected to find? If so, what and how did your team use this information?

<u>Innovative Solution</u>

Team Solution
- Describe the solution your team identified in three sentences or less.
- What are the most important things to understand about the solution that you developed?
- How did you arrive at your solution and why?
- Were there other solutions that you thought of that you decided not to use? Why?

Innovation
- What makes your solution different from what is being used to solve this problem now, and why do you think it is better?

Implementation
- If someone tried to use your solution today, would it be possible?
- What kinds of things would be important to think about if you tried to use your solution right now?
- What resources would you need to develop your solution?
- Do you think your solution would be easier or less costly than other solutions you considered or are used by others?

<u>Presentation</u>

Presentation Effectiveness
- How many/what different presentation styles did your team consider?

- Why did you choose the presentation style that you chose? How does this style help your audience understand what you are telling them?
- When you have given your presentation to others, what types of questions have they asked?
- Describe how you chose what information to include in your presentation.
- Why did you choose to organize your presentation the way you did?

Creativity
- How did you decide on this presentation style that you used?
- What do you think was the most creative aspect of your presentation or project and why?
- How is the way your team chose to present your Project special or unique?

Sharing
- One aspect of the project asked you to share your ideas with others. How did your team do this?
- With whom did you share your project? Why did you choose them?
- How did you share the information? Did you present it in the same manner as you presented to us, or did you choose a different approach? Why?
- What impact did your presentation have on them?
- What changes have you or others made as a result of your research and presentation?

Look for:
- Documentation of resources used.
- Depth of the information provided.
- All students participated in the research process, or understand the process and results of the team's research.
- Supporting printed materials provided to judges.
- Entire team participating in discussion.
- How the team interacts with each other.
- Do they all talk, or only a few? If so, why?
- Does the team look to the coach often or are they focused on the presentation and judges.
- Noteworthy observations about FLL Core Values to share with the judging team.

The Project

Independent. Engaged. Connected.

PREVIEW THE PROJECT

Through the Senior Solutions℠ Project, your team will:

- Find a senior partner
- Identify and learn about a problem faced by seniors
- Create an innovative solution to the problem you identify
- Share your problem and solution with others

THINK ABOUT IT

From the second you were born to this very minute, you are getting older. At first, this means growing bigger, learning to walk and talk, and discovering your connection to the people and the world around you. You grow from baby to toddler to child to teenager to adult to senior. Your Project challenge this season is to investigate the stage of growth known as being a senior.

Have you ever thought about what it's like to be 60 years old or older? "Boring!" you say? Consider these seniors:

- "Banana" George Blair entered his first barefoot waterskiing competition when he was 64. Since then, he set many world records—like being the first person to waterski barefoot on all seven continents. He was still waterskiing at age 93.
- At age 100 years, inventor Eemeli Väyrynen became the oldest person ever to receive a patent in Finland for his improved potato planter.
- People call Eileen Philippa "Phil" Raschker the greatest female athlete in the world over the age of 60. Some say she might be the greatest female athlete of all time.
- Annie Elizabeth "Bessie" Delany (age 101) and her sister Sarah Louise "Sadie" Delany (age 103) published a book about their first 100 years and were on the New York Times bestseller lists for 105 weeks.

But, just as there are challenges as young people grow from a baby to an adult, growing as a senior can have its drawbacks. Some people have trouble remembering things. As the nervous system grows older, it takes longer to notice changes and react. As muscles grow older, they can become less flexible. Some people move more slowly.

Body parts begin to wear out. Diseases like osteoporosis (bone loss), arthritis (swollen joints), glaucoma (pressure inside the eye that may cause blindness), and others often attack seniors. As friends and family members become less active, or even die, many seniors find themselves in smaller social groups. As seniors themselves experience aging, many require more care—physically, mentally, emotionally, and socially.

Each person ages in a different way. Some people experience only one or two problems. Others seem to experience none at all. Lots of seniors still work, exercise, go dancing, travel, and have a great time. Just like anyone, seniors need the right solutions for their specific challenges.

FIND A SENIOR PARTNER

Your Project challenge this season is to solve a problem faced by seniors as they age. To start, your team needs to find a senior partner. Many people define seniors in different ways. For the Senior Solutions Project, look for an adult who is 60 years of age or older.

Not sure how to find a senior partner? Consider these suggestions:

Each Team Member — Begin by looking at your own family and friends. Consider grandparents, great grandparents, neighbors, assisted living residents, business owners, or babysitters. Make a list of the seniors you know. How do you know each one?

- Do you volunteer with seniors?
- Is there a senior center in your community?
- Are there activities, classes, or social events for seniors in your neighborhood?

As a Team — Next, take a look at each team member's list. Talk about how your team can connect with these people. Do they live near you? Can you talk with them in person? Over the phone? Using email or social media? By letter? Can you learn about what life was like when they were children? Teenagers? Young adults?

As a Team — Choose a senior and invite that senior to be your partner and help with your Project. Remember, not everyone who is asked will be able to help your team. If a senior says, "I'm sorry. I can't help," invite someone else. Your team may also choose to research a famous senior.

IDENTIFY A PROBLEM

As a Team — Get to know your team's senior partner. Find out about his or her life, history, and the challenges seniors face today. You might want to ask your senior partner questions like: When were you born? How was life different then? Where did you go to school? What did you study? What do you (or did you) do for a living? What did you like to do when you were 10 years old, 25, 40, last year? Are any of those things more difficult now? Why? What would make your life easier today?

Keep in mind that everyone wants to be treated with respect—and seniors are no exception. Find out what your senior partner loves about being older, as well as what things might be a little harder now. Your senior partner might tell you about challenges faced by a senior friend or relative. Here are a few examples of tasks some seniors say they find challenging:

- Recovering from injuries
- Keeping up with new technology
- Remembering certain things (the date, when to take a particular medicine, or to turn off the stove after cooking)
- Staying fit
- Finding fun things to do, by themselves and with others
- Managing their finances
- Getting what they need—food, household goods, medicine, clothing
- Communicating with family, friends, doctors, and other helpers

As a Team — Choose one problem that your senior partner identified and learn about it. (If your team chose to research a famous senior, choose one of the problems that senior experienced after age 60.) What causes the problem? What is being done to solve the problem today? Are new solutions being developed by scientists or engineers? Some resources you may use to look for information are: reports, books, magazines, and websites. Check with professionals who work in and around your community. Use any research tools you have available. Be prepared to share your information sources.

While you are researching your senior's challenges, find out about a professional who is working to solve their problem. Is a scientist, physician, or engineer helping with research or developing new technology? Is a social worker, community activist, or health care worker developing new programs? Can your team connect with a professional to learn more?

CREATE AN INNOVATIVE SOLUTION

Now that your team has decided on a problem, your challenge is to create an innovative solution—one that makes life better by improving something that already exists, using something that exists in a new way, or inventing something totally new. Learning about current solutions is just the beginning. How can your solution help seniors feel respected and do the things they love? How will your solution help seniors stay independent, engaged, and connected?

Think about it. Work together! Brainstorm! Share all your ideas. One team member's "crazy idea" just might inspire the perfect innovative solution. What could be done in a new way? What could be done better? What will it take to make your team's solution happen? A great solution might take all the imagination and ingenuity your team can muster. It might seem so obvious that you wonder why the problem even exists.

And remember, the most important thing is to have fun.

SHARE WITH OTHERS

Now, tell others about the problem you researched and exactly how your solution can help. You choose how to share what you've learned. Give a talk. Create a website. Perform a skit. Make a comic book. Rap. Create a poster. Pass out flyers. Write a poem, song, or story.

Think about who is helped by your solution. How can you let them know? Can you present your research and solution to other seniors, lawmakers, doctors, engineers, or groups who already help with your problem? Who would your senior partner like to tell about your solution? What's the best way to teach your audience about the problem and solution? Your sharing can be simple or elaborate, serious or designed to make people laugh while they learn.

PRESENT YOUR SOLUTION AT A TOURNAMENT

If your team chooses to attend a tournament, prepare a presentation to share your problem and solution with the judges. Your presentation can include posters, slide shows, models, multimedia clips, your research materials – be creative. Remember, you want to leave a lasting impression.

To be eligible for Project Awards and advancement your team must:

1. Identify your team's senior partner. (Your senior partner is not required to attend.)
2. Identify the problem your team chose to research.
3. Describe your team's innovative solution.
4. Describe how your team shared your findings with others.
5. Meet the presentation requirements:
    *   Give your presentation live; you may use media equipment (if available) but only to enhance the live presentation.
    *   Set up and complete your presentation in 5 minutes or less with no adult help.
    *   Include all team members in some way during the Project judging session.

Learn how your presentation will be judged by reviewing the Rubrics located at: http://www.firstlegoleague.org/event/judging. Among other things, judges expect to your team to:

*   Clearly explain both the problem and your team's solution
*   Use different types of research resources, including professionals in the field
*   Consider existing theories and solutions as you develop your own solution
*   Be innovative
*   Show that you thought about what it will take to make your solution happen in the real world
*   Target your sharing toward those who might benefit from your team's work
*   Find a way to present your work that is both effective and creative

MORE RESOURCES

Remember that the official FLL Challenge documents are always the final authority on what to do for this year's Project and Robot Game. If you are not sure how to start working, *FIRST*® LEGO® League provides resources to help:

*   Check the Project FAQ often: http://www.firstlegoleague.org/challenge/projectfaq. Here FLL staff will clarify common Project questions.
*   View the 2012 Project page at http://www.firstlegoleague.org/challenge/2012seniorsolutions. Download the Glossary, Resources, and Ask a Professional documents to help you start your research.
*   The *FIRST* LEGO League Coaches' Handbook contains an introduction to FLL, the Challenge, tournaments, and judging. Find the first three chapters here: http://www.firstlegoleague.org/challenge/teamresources

If you have questions, email fllprojects@usfirst.org for Project support.