

FIRST. LEGO[®] LEAGUE JR. FIRST.
LEGO
LEAGUE

FIRST TECH CHALLENGE FIRST.
ROBOTICS
COMPETITION



What is FIRST® LEGO® League Jr.?

FIRST® LEGO® League Jr. is a non-competitive, hands-on STEM program for children ages 6 to 10. Each year, FIRST LEGO League Jr. presents a new and exciting Challenge based on a real-world theme. Teams of up to six children each begin to explore the Challenge with an exclusive LEGO® Education Inspire Model. Using this model as a starting point, they design and build a new model of their own with LEGO® elements. They use LEGO® Education WeDo to program their model to make it move. Teams also document their work in an Engineering Notebook and share their journey through a team Show Me poster. Throughout their experience, teams operate under the FIRST LEGO League Jr. Core Values, celebrating discovery, teamwork, and Gracious Professionalism.®





Teams

- Design and construct a model using LEGO[®] elements and motorized parts.
- Present their research journey on a Show Me poster.
- Learn teamwork skills and about Core Values.
- Build self-confidence, knowledge, and life skills.





Core Values

- We are a team.
- We do the work. Our coaches and mentors help us learn, but we find the answers ourselves.
- We share our experiences and discoveries with others.
- We are helpful, kind, and show respect when we work, play, and share. We call this Gracious Professionalism[®].
- We are all winners.
- We have fun.



The Challenge

- Every year the program staff works with experts in the field to create a Challenge for teams to research.
- The Challenge relates to an important real-world topic.
- Past Challenges have been about: climate, transportation, food, seniors, and etc.
- Teams research the Challenge theme and create a LEGO model and a Show Me poster that represents their learning.



2017 Challenge



In the FIRST® LEGO® League Jr. AQUA ADVENTURESM Challenge, you will:

- Explore how you use water at home or in your community, the water's journey, and how to improve a part of this journey.
- Create and test a Team Model to show your ideas.
- Share what you learn through your Team Model and a Show Me poster.

Hi, I'm Hydro the water drop! Find out how water like me gets to you. Can you help make my journey better?

Join me on an AQUA **ADVENTURE!**





Challenge Rules

- Your Team Model must show your chosen water use, the journey that water takes to get to you for this use, and the solution you designed to improve the water's journey.
- You must use only LEGO® elements. You can use any LEGO bricks, minifigures, base plates, or other elements. You may not use glue, paint, or any other art or craft materials.
- You must include the AQUA ADVENTURE Inspire Model.
- You must use LEGO® Education WeDo 2.0 or WeDo to build and program at least one motorized part.
- The footprint of your Team Model must be no bigger than 30 in. x 15 in. (76 cm x 38 cm). There is no height limit. However, your team must be able to move the model safely.
- Use your imagination as you design and build. Be creative!



Inspire Model

This season's Inspire Model is a water pump. It is used by teams to inspire them on their journey. All teams must incorporate the Inspire Model in their Team Model.



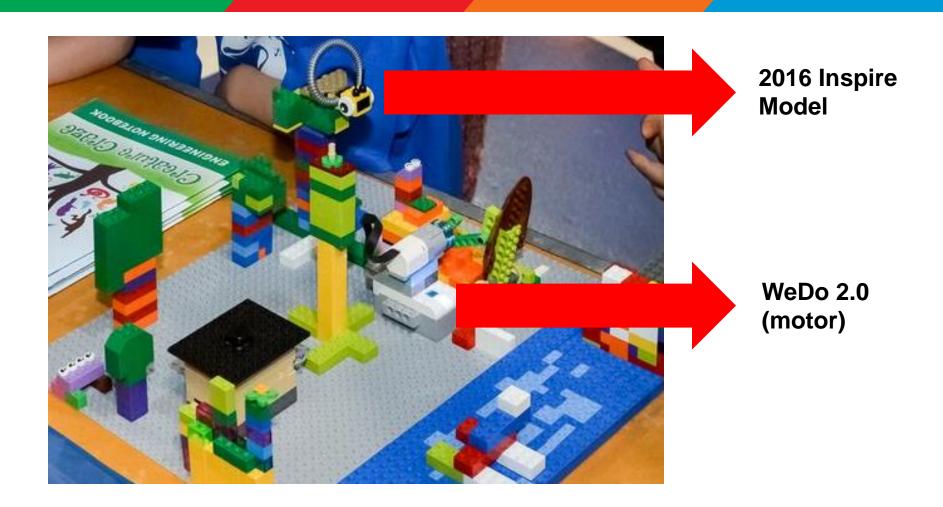
WeDo 2.0 or WeDo



* Above picture of WeDo 2.0 and example program



Team Model (2016 Example)





Programming



Teams will use a device to run their program and motorize their team model





Show Me Poster Guidelines

Your poster should have three main parts: Explore, Create and Test, and Share.

- Explore: Explain what you learned this season and how you learned it.
- Create and Test: Tell how you created and tested your Team Model and program.
- Share: Share information about your team.

You can use words, drawings, and photos on your poster. You can also attach small objects. Below are some ideas of what you could include in each part of your poster.



Show Me Poster





FIRST® LEGO® League Jr. Expo





What is a FIRST LEGO League Jr. Expo?

- A fun, non-competitive community event
- Teams share what they have learned
- Celebrate with other teams, families, and volunteers





At a FIRST® LEGO® League Jr. Expo...

Teams share:

- Their personal experience with science and engineering topics.
- What they learned working as a member of a team.
- The satisfaction of becoming an expert and teaching others.





What is a Volunteer Reviewer?

An important volunteer role at an expo.

Volunteer Reviewers meet with teams and ask them questions about their season.

Help give awards at a Closing Ceremony.









Volunteer Reviewer Responsibilities

- There should be 2 reviewers for every
 5-7 teams.
- Write down notes about each team to help with awards after.
- Reviewers walk around expo visiting teams.
- If providing team awards, help assign and distribute awards at the Closing Ceremony.
- Ask questions about their research, LEGO model, and Show Me poster.
- Be part of the High-Five Line at the Closing Ceremony.
- Provide positive feedback to teams
- Reviewers should never be alone in a room with teams.
- Be kind to teams and show interest in their Project.



Reviewer Questions

Reviewers will receive questions to help guide the reviewing process

When asking questions sit or kneel, so children feel more

comfortable

Smile and have fun!





Expo Awards

- Everyone wins!
- Every child on a team must leave the Expo with something, whether it is a participation certificate, a ribbon, medal, pin, and etc.
- Some Expo Organizers may decide to also give team awards.
- These awards are taken from the Standard Award List.
- Reviewers should review their notes about each team and help assign one of these awards to <u>each</u> team.



High-Five Ceremony

Teams parade up to receive their award. They go through a high-five line consisting of reviewers, volunteers, or even coaches before returning to their seats.







Thank you!

Whatever you do, have fun!



