

2018 First® LEGO® League JR.  
Rules & Regulations  
Malaysia Edition





## *FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY*

First® is a non-for-profit organization devoted to helping young people discover and develop a passion for STEM (Science, Technology, Engineering, and Math).

*“ We want to change the culture by celebrating the mind. We need to show kids that it’s more fun to design and create a video game than it is to play one.”*

**Dean Kamen**  
**Founder of FIRST®**

*“ FLL encourages children to design, construct, and program their own intelligent inventions. This allows them not only to understand technology, but to become masters of it.”*

**Kjeld Kirk Kristiansen,**  
**Chairman of the Board LEGO Group**



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# Theme

## Aqua Adventure

Find out how water like me gets to you. Can you help make my journey better? Join me on an AQUA ADVENTURES!!

## What should challenge teams do in this season?

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

## Explore It!

You and your community use water for many things every day. Where does your water come from? How does it get to you? Is the water cleaned or treated before you can use it? Why is it important to use water wisely? Pick one way that you use water at home or in your community. Learn as much as you can about the water's journey. Then design a solution to improve a part of this journey.

## Create It!

Design, build, program, test, and improve a Team Model to show your chosen water use, the water's journey, and your idea for how to improve a part of the journey. Include the AQUA ADVENTURES™ Inspire Model (a LEGO® water pump) in your design. Also be sure to use LEGO® Education WeDo 2.0 or WeDo to build and program at least one motorized part of your Team Model..



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# Theme

## Share It!

Make a Show Me poster, and use it and your Team Model to share what you have learned with others. Participate in an Expo, invite your family and friends to a special team meeting, or share your Engineering Notebook to show what you know about water!.

## Team Model Guidelines



## Show Me Poster Guidelines

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

**\*\*You can use words, drawings, and photos on your poster. You can also attach small objects.**

## Conditions of Participation

1. A school team should comprise of 2 to 3 students and 1 coach.
2. This competition is open to students from age 6 to 10 in year 2017.
3. All rules and regulations are subject to change without prior notice.

## Regulations on Project Materials

1. All LEGO® electric/electronic components used to assembly project must be from WeDo or WeDo 2.0 Core Set. Each one must **exactly match** a type shown below in Figure 1.1.

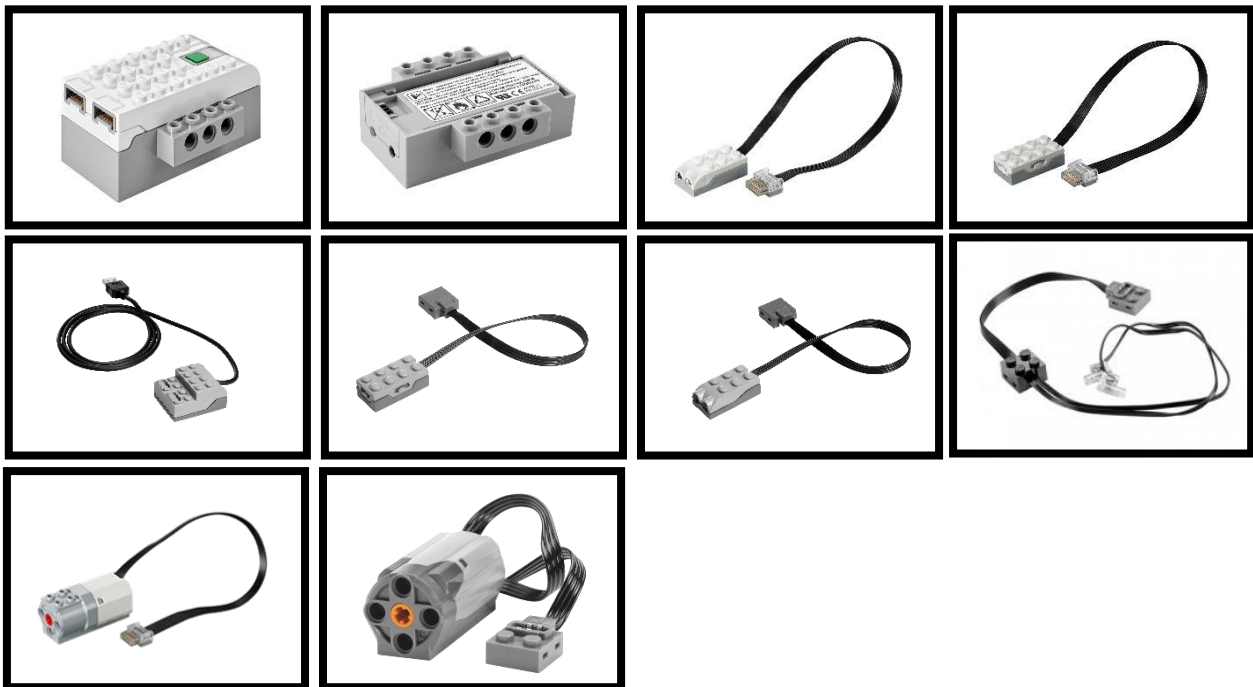


Figure 1.1

2. Only LEGO® branded elements may be used to construct the remaining parts of the project.



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# Project

## Regulations on the Project

1. All team will make an exhibition and demonstration of their project on the competition day.
2. **Must use only** LEGO® elements. Team **can use any** LEGO bricks, minifigures, base plates, or other elements.
3. Team **may not use** glue, paint, or any other art or craft materials.
4. The inspire set **must be used** in the project.
5. The size of the whole project, including booth decorations, must not exceed 2 meters (L) x 2 meters (W) allotted area.
6. The Model **must not** exceed 15"X15".

## Regulations on the Competition Event

1. Participants will be provided with a table and chairs to exhibit and demonstrate their project.
2. There will be a reviewing session. Projects will be evaluated by the panel of reviewer based on presentation and demonstration of the projects.
3. There will be a **10-minute reviewing session**. Projects will be reviewed by the reviewers. 5 minutes will be given to the participants for demonstration and 5 minutes for a Q & A session with the reviewers.

*\*The events and format for the final competition may differ from the above. Information will be given to the finalists at a later date.*



# Awards

1. **Amazing Movement Award**- For incorporating a unique movement into a team's design,
2. **Gracious Professionalism Award**- For exemplifying gracious professionalism during the event. This team was thoughtful, kind, and showed respect for others.
3. **Against All Odds Award**- For overcoming incredible odds of an unforeseen nature. This team could improvise, adapt, and recover out of sheer determination.
4. **Effort and Learning Award**- For a strong effort and a willingness to learn and try new things. This team prepared for success.
5. **Complexity and Decoration Award**- For beautiful model construction, with great decorative touches.
6. **Most Explosive Award**- For explosive ideas, eye-catching Show-Me poster, and explosive team energy.
7. **Robust Design Award**- The team whose understanding and application of construction knowledge allowed them to produce the most solid and sturdiest design.
8. **Construction Innovation Award**- For demonstrating an ability to think creatively. This team created excellent designs and built quality components without any instructions or outside assistance.
9. **Team Spirit Award**- For a fun team environment, a positive attitude, and constant team support and cheering.
10. **Teamwork Award**- For hard work on teamwork. Success as a team came first. Always first to a team solution, this team knows that Together Everyone Achieves More.
11. **Inquiring Minds**- For interest in science and enjoyment of the building process. Always looking to find a solution, this team kept morale up while creating smart solutions.



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## Q & A

**Q: How big is the Inspire Set?**

**A:** The 2016/17 Inspire Set will come in a plastic pouch, about 10cm tall and wide. The Inspire Set contains LEGO elements to create a model to be used by the team.

**Q: Won't using an Inspire Set on every FIRST LEGO League Jr. Challenge model hinder creativity and innovation by the teams?**

**A:** The FIRST LEGO League Jr. Challenge is being written to incorporate the Inspire Set and create a consistent experience, while at the same time allowing teams to develop their own ideas. It is very important that FIRST LEGO League Jr. teams can be creative and innovative, and the Inspire Set will be used to spark those ideals for the team.

**Q: Can more than one team use an Inspire Set? Can teams share?**

**A:** Each team needs to use an Inspire Set as part of their model and present it at the Expo. Teams at the same Expo cannot share an Inspire Kit. This will help to create a more consistent and quality experience for all teams.

**Q: Can teams use both of the WeDo sets together in the Expos?**

**A:** Yes, as long as they are following the guidelines of the Challenge.

**Q: If I purchase only the basic WeDo 2.0 Core Set, will it be enough to participate in the FIRST LEGO League Jr. Challenge?**

**A:** Yes, the WeDO 2.0 Core set contains the software and elements to build your WeDO model. Teams will, however, also need additional LEGO bricks to complete their model as in previous seasons. As an addition to the FIRST LEGO League Jr. program, an extended WeDo 2.0 set is also available which contains many more activities and possibilities for the classroom and/or team to use throughout the year.