Spike Prime Challenge 2025

A Virtual Competition

Term 1 and 2, 2025

Information Pack
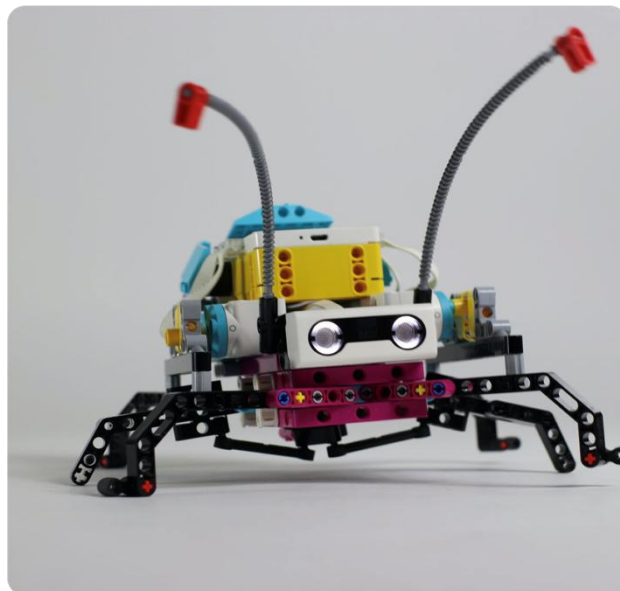
Important Information

Key Dates	
Location	Virtual
Key Dates	Monday, February 24th - Competition Launch Registrations & Entries are due Friday, June 27th Virtual Presentation of Awards – 7.30 pm Tuesday, July 22nd *These dates are trying to account to the wide variety of public school term dates in Australia.*
Registration	Online team registration at https://enter.robocupjunior.org.au/ Teams must register online by 11:59pm Friday 13th June 2024 Media Release Forms are mandatory: https://www.robocupjunior.org.au/wp-content/uploads/2021/03/RCJA_Media_Release_Deed.pdf
Entry Fee	An entry fee of $25.00 per team will be charged. Online payments are preferred and available when registering online.

Teams and Eligibility	
Eligibility	Open to all primary and secondary school students Parents and teachers are welcome to attend on the Virtual Presentation Evening.
Brief	Embark on a Spike Prime World of Discovery! Calling all young adventurers and curious minds! Get ready to visit worlds of imagination with LEGO Spike Prime! We're challenging you to build amazing creations that can autonomously explore and navigate their chosen world. Whether you're a science whiz, a history buff, or a future-thinking innovator, there's a challenge for everyone!
Team Limits	There are no 'teams per school' limit. Teams are limited to a **maximum of four members**.

Specifications	1. Your autonomous creation needs to be your own design. You are encouraged to research and find examples of what others have already done, but your final product should be your own: not a copy of someone else's idea.
	2. You will create a Learning Journal to show evidence of:
	   a. The research you did,
	   b. How you came up with the idea for your design (try brainstorms, flowcharts, drawings, etc),
	   c. Planning your design and program (justify why you made the decisions you made),
	   d. Images of your build along the way,

	e. Anything else you want to share about your design. 3. Your robot cannot be remote controlled, you should use hardware and write a program that enables it to be autonomous. 4. The robot should have features that can navigate or explore the 'world' that you are trying to create. **5.** You are absolutely welcome to decorate your robot to make it look more like what you are trying to imitate. Just make sure that you don't spend all your time on decorating and forget about the programming! **We need to see a copy of your whole code not just parts of it.** You can send it as a separate file. 6. You need to use a Spike Prime kit for the base model of your robot. You can use other Lego parts to build your robot however all sensors need to be from the Spike Prime kit or the Spike Expansion kit. 7. Don't forget to have fun and be creative!!

Submissions	This should include:
	
	1. a video (max 3 minutes) of you demonstrating your robot as it shows off its features.
	
	    a. Include a brief introduction where each team member discusses their role in the team,
	
	    b. A discussion about why you think you robot is a suited to exploring or navigating your world, did you use motors, sensors, LEGO® elements and how do they add interest or functionality?
	
	    c. Describe the features that you built/programmed into the robot, and why they are useful.
	
	    d. The team should discuss what they found the hardest, and what they enjoyed the most about this challenge.
	
	    e. Your robot in action. zoom in and out to show your robot in action.
	
	2. A learning journal (.pdf is best) with all your supporting evidence, outlined in (2.) in the specifications. It is helpful for us if you include photos of the robot in this document so we can see how well it has been built **or** shared link to your **Google Doc/Slides/ Folder** with all your supporting evidence, outlined in (2) in the specifications. Don't forget a copy of your code. (Make sure sharing permissions are working.)

Resources	Example LEGO builds and ideas: https://bit.ly/3OwEv9f https://education.lego.com https://education.lego.com/en-us/lessons

Our Mission Statement

RoboCup Junior Australia aspires to be a popular educational activity of excellence. During the 20th century, science and technology have made exponential strides toward the bettering of people's lives, but at the same time, they have left many problems to solve. In the 21st century, our cultures must evolve to cater to new technologies. This is not a problem to be solved by one country or just a few engineers. All concerned people throughout the world must work on its ongoing solution. By taking a fresh look at robots as an educational and entertaining medium, it is hoped that RoboCup Junior Australia will contribute to the development of a modern society.

Our Objectives

1. To encourage young people to take an interest in scientific and technological fields and to cultivate their enthusiasm through hands-on creation in robotic competitions.
2. RoboCup Junior Australia will assist young people in developing their social, intellectual, and problem-solving skills, allowing them to grow into creative and independent adults.
3. To create a space that enables more individuals to value the harmony between science, technology, and humanity.
4. To foster an environment that inspires individuals from around the globe to share their experiences in science and technology and contribute to its advancement.
5. To use robotics as a vehicle to foster the development of an internationally-based intellectual cooperative.
6. The emphasis will be on learning and enjoyment rather than competing to win.
7. Participants will be required to share technological developments to improve the quality of the competition rather than allow an individual team to dominate.
8. RoboCup Junior Australia is an educational activity that nurtures understanding between different nationalities by offering the opportunity to compete in an educational robotics competition.
9. RoboCup Junior Australia must remain accessible to students around the world.