

World Robot Challenge 2018

- A total of 9 challenges in 4 categories. ※1
- Total amount of prize money for the World Robot Challenge 2018 will exceed 100 million yen. ※2



Category	Challenge	Challenge Summary	Prize
Industrial Robotics	Assembly Challenge	Belt-drive unit assembly, Task board and Kitting	21 million yen (1st Place: 15 million yen, 2nd Place: 5 million yen, 3rd Place: 1 million yen)
Service Robotics	Partner Robot Challenge (House Support Challenge) Real Space League HSR(Toyota Motor Corporation) as the standard robot platform	1. Bring Me Go get an object from a designated room. 2. Tidy Up Here Test Tidy up the objects to the original positions in a room. 3. Demonstration Demonstrate the concept of future partner robots which make humans comfortable and happy.	14 million yen (1st Place: 10 million yen, 2nd Place: 3 million yen, 3rd Place: 1 million yen)
	Partner Robot Challenge (House Support Challenge) Virtual Space League HSR(Toyota Motor Corporation) as the standard robot platform	1. Handyman The robot demonstrates navigation tasks, human-robot interaction task, etc. 2. Interactive Cleanup The robot observes human gesture to understand the target object and the trash can. 3. Human Navigation The robot generates a linguistic instruction for a real user to find a target object in an unknown virtual environment. 4. Open Task The participants demonstrate human-robot interaction tasks by using the simulator and make presentations on those tasks.	14 million yen (1st Place: 10 million yen, 2nd Place: 3 million yen, 3rd Place: 1 million yen)
	Future Convenience Store Challenge (Automation of Retail Work Challenge)	1. Stocking and Disposing Tasks Self-stocking of products such as onigiri rice balls, bento lunch boxes, etc., and removing expired foods 2. Customer Interaction Task Proposing and demonstrating customer services in the near future 3. Toilet Cleaning Task Cleaning toilet seat, toilet floor and wall	13.9 million yen (Additional 1 million yen to the best team among the 1st-place teams) Stocking and Disposing Tasks (1st Place: 3 million yen, 2nd Place: 1 million yen, 3rd Place: 0.3 million yen) Customer Interaction Task (1st Place: 3 million yen, 2nd Place: 1 million yen, 3rd Place: 0.3 million yen) Toilet Cleaning Task (1st Place: 3 million yen, 2nd Place: 1 million yen, 3rd Place: 0.3 million yen)
Disaster Robotics	Plant Disaster Prevention Challenge	Daily Inspection/Maintenance: Visually recognize and adjust the valves etc. installed at specified position. Fault Detection: Measure fault sound and/or vibration of pipes of which positions are not specified, and report the measurement results. Diagnosis: For a large structure, e.g., tank and chimney, diagnose the health of the structure. Disaster Response: Respond to the accident occurred during the inspection.	14 million yen (1st Place: 10 million yen, 2nd Place: 3 million yen, 3rd Place: 1 million yen)
	Tunnel Disaster Response and Recovery Challenge	6 tasks: Traversing obstacles, Vehicle inspection, Vehicle inspection using tools and rescue, Secure the route, Fire extinguish, Shoring and Breaching.	14 million yen (1st Place: 10 million yen, 2nd Place: 3 million yen, 3rd Place: 1 million yen)
	Standard Disaster Robotics Challenge	Assessing standard performance levels (e.g. mobility, sensing, information collection, wireless communication, remote control, on-site deployment, durability, etc.) required in disaster prevention and responses.	14 million yen (1st Place: 10 million yen, 2nd Place: 3 million yen, 3rd Place: 1 million yen)
Junior	School Robot Challenge Pepper(SoftBank Group Corp.) as the standard robot platform	1. Skill Challenge 2. Open Demonstration Participating teams will demonstrate a robot 3. Technical Interview Participating teams will have an interview with a panel of judges	N/A ※3
	Home Robot Challenge	Setting tasks such as picking and placing an object at home and making robots to perform those tasks. Skill Challenge, Open Demonstration, Technical Interview.	

※1 With regards to competition details in 2020, stated details are all present assumptions and the final details will be confirmed by referring to the progress of technology and the results of pre-competition held in 2018.

※2 There will be no winners if no participating teams can accomplish a certain level of performance.

※3 The winners will be given prize instead of prize money.