Competition Report

Universal Robotics Challenge 2024 Executive Committee

November 2024

Overview

Title:	Universal Robotics Challenge 2023

Title:	Universal Robotics Challenge 2024
Summary:	An international competition using ArtecRobo robotics kits
Purpose:	Solve various challenges and deepen children's interest in the field of robotics
Dates:	Online preliminaries with in-person finals
Idea Contest:	October 30 (Wed), 2024
Real Robotics Preliminaries:	July 5-August 16, 2024
World Finals:	September 22 (Sun), 2024

Held by the Universal Robotics Challenge 2024 Executive Committee

Sponsors:	Xob Co., Ltd., Ishida Co. Ltd., ELECOM Co., Ltd., Otsuka Corporation, Kamigumi Co., Ltd., Kyohritsu Electronic Industry Co., Kyowa Shiko Co., Ltd., Kunimatsu Corporation, Zetta Linx Inc., Sony Global Education, Turner Colour Works Ltd., Daiichijushi Industry Co., Ltd., Tosho Printing Co., Ltd., Japan AI Consultant, Pentel Co., Ltd.
Media Sponsors:	Seibundo Shinkosha, GMO Media Inc., BSC International
Special Thanks To:	Gakken Method Co., Ltd.
Planning:	Artec Co., Ltd. Universal Robotics Challenge Executive 2024 Committee

Competition Overview

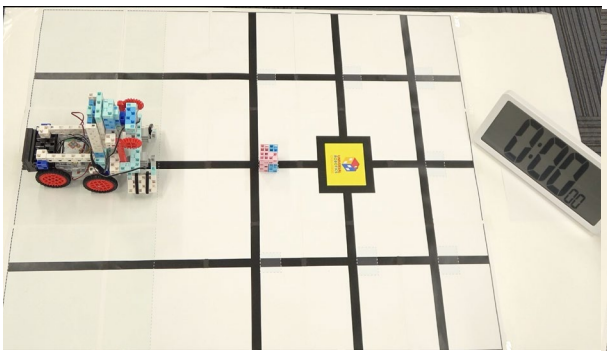
Universal Robotics Challenge 2024 is a competition for elementary and middle schoolers, held both in-person and online. This year's competition was split into two divisions
with a total of over 2500 entries.

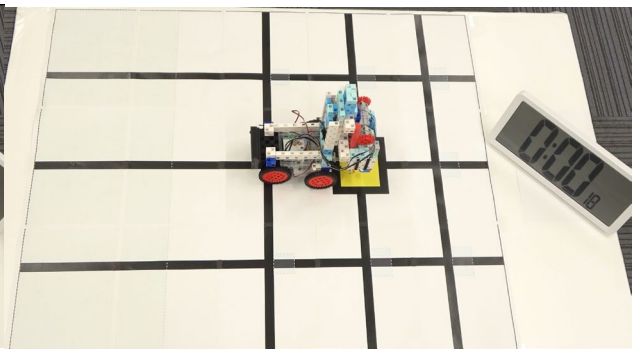
- In Real Robotics, children follow the rules of the competition as they compete for the high score.
- In the Idea Contest, children use their ArtecRobo kit to build a robot for the competition theme and submit a video of it solving the challenge.

Real Robotics

Stacking Blocks

In this competition, participants built a robot of their own and used it to stack packages as high as they possibly could.





Early Division

This year also saw a test run of a competition for preschoolers and kindergartners.

This competition challenged children to use self-driving vehicles to move and plant block trees in order to make a city greener and more sustainable.

Idea Contest

[SDG3] A Better World for All

This competition challenged participants to design, develop, and build an innovative machine, robot, or system that makes the world a healthier and better place for everyone.

[SDG3] A Better World for All
Lift System

Arthur Tek

Real Robotics

World Championship Results

Regular Division

1st

Shizuoka, Japan

Katoh Gakuen RSI

Shoma Iwasaki

Itsuki Morioka

Rin Morioka

Sora Fuzawa

Rikuto Kanemoto

2nd

Thailand

Team Ubon TP B

Master Rutthichai Pijarn

Master Pasit Jiamanugulgit

Master Phisit Sermkasem

3rd

Australia

Ingleburn - Aus

Winston (Abraham) Thio

Claire To

Flynn (Autchariya) Wangpaibul

Aarifa Shabbir

Advanced Division

1st

Kanagawa, Japan

SmileKing

Takumi Matsumura

Hinata Inomata

2nd

Hong Kong, China

CK Girl Team

HUNG PUI YIU

LIANG CHEUK LAM

MO YU MING

WONG YEUK YIN

3rd

Okinawa, Japan

KOSHIN Kids_A

Daiki Fukui

Yuushi Awahara

Japan Qualifiers

Regular Division

1st

Shizuoka, Japan

Katoh Gakuen RSI

Shoma Iwasaki

Itsuki Morioka

Rin Morioka

Sora Fuzawa

Rikuto Kanemoto

2nd

Okinawa, Japan

Shin Ozawa-kun from Miyakojima Ozawa Learning Center

Rin Takehara

Ryuuki Taira

3rd

Shizuoka, Japan

GYOSHU 5R HDRT

Hiroto Kidokoro

Takahiro Sugai

Daiki Nishio

Reira Mochizuki

Advanced Division

1st

Japan

SmileKing

Takumi Matsumura

Hinata Inomata

2nd

Japan

KOSHIN Kids_A

Daiki Fukui

Yuushi Awahara

3rd

Japan

hyu

Hyuugo Nema

Idea Contest

World Championship Results

Junior Division

1st

Malaysia (Grade 3)

SMART ONE STOP SHELTER (SOSS)

https://youtu.be/cTilKHoJTwM?si=CxK3JNn-pEfvGQJe

FARHAH HUMAIRA BINTI MUHAMOD FAHMIR

NUR IRIS RANIA BINTI SUFFIAN

AISYAH AL HUMAIRA BINTI MD NIZAM

2nd

Malaysia (Grade 3)

AUTOMATED TRASH CAN

https://youtu.be/QI_iTxu8uTY

MUHAMMAD AFLAH MUKMIN BIN MOHD HISHAM

SYED IRFAN ANAQI BIN SYED MUHAMMAD IZZAT

MUHAMMAD ARIFF NAWFAL MOHAMMAD NAGUIB

3rd

Hong Kong, China

A.I. ECO-TRASH BIN

https://www.youtube.com/watch?v=Q8FVzU4dNbo

Au Yeung Yiu

Ong Mo Bin

Finalist

South Korea

Mechanism to Walk backward

https://youtu.be/nksnFKLou8A

Liah Kim

Honorable Mention

Philippines

Robotic Nurse 2.0

https://www.youtube.com/watch?v=YuZzejTMic8

Caleb Sy Tan

Daniel Johan Yeung

Jade Maddison Limsoc

Austin Xie Meng

Aaron Keane D. Lim

Senior Division

1st

Malaysia (Grade 3)

R2-D2

https://youtu.be/iqGMXs_W5Do?feature=shared

Jaynerson Joelee

Allyson Yot Linton

Anselm Wong Jing Ern

2nd

Hong Kong, China

One-Stop Service For The Elderly

https://youtu.be/oGvPGo9YMOM?si=txNO-g0PD7BNxt6-

Cheng Yu Hin

Tse Shun In

Wong Sze Pak

Zhou King Tao

3rd

Japan

URC2024 SDGs3: Mr. Carry Safely

https://youtu.be/N0Xl2RBzZtE

Fuma Aoki

Finalist

Hong Kong

Food distribution system

https://youtu.be/XG8V8aQnuMI

Benedek Tóth

Honorable Mention

Malaysia (Grade 3)

P.A.L

https://youtu.be/Us_ighV3dQY?si=fII4yfUUutzfp5uV

SHIRLEY HEE RU CHING

TIFFANNY TING YI RONG

WAN CAMILLIA ARIANNA BINTI WAN IBRAHIM

Japan Qualifiers

Junior Division

1st

The Soccer Leg Prosthetic

https://youtu.be/BNpsvMExjLw

Shiho Nakabayashi

2nd

Wellness House

https://youtu.be/thbJO3ImNh4

Yusei Takata

3rd

The Remember Your Medicine Robot

https://youtu.be/F_OIlXFKncs

Haruki Tokunaga

Finalist

Search and Delivery Robot

https://youtu.be/1gNkj8YiFZ4

Kaede Moriki

Honorable Mention

The Plastic Bottle Opener

https://youtu.be/9iHH7FClBRE

Yuuta Ukawa

Senior Division

1st

URC2024 SDGs3: Mr. Carry Safely

https://youtu.be/N0Xl2RBzZtE

Fuma Aoki

2nd

Platform Gap Bridger

https://youtu.be/eTXYYH4Ewns

Yuki Miyajika

3rd

Stay Healthy! Food Habits Monitor

https://youtu.be/0dZzNnLzBdU?si=8g0MrpOo0idnyGUZ

Eiji Ichikawa

Finalist

Transporter for Hard-to-Reach Places

https://www.youtube.com/watch?v=gl3MoO-Ct-4

Nao Hamada

Koga Hashimoto

Koki Akamatsu

Ryoga Kono

Hidetoshi Iwai

Honorable Mention

Automated Violator Surveillance for Everyone's Safety

https://youtu.be/Uc9SjLi97wE

Yurai Yoshii

Sena Wakita

Hideto Sakamoto

Sotaro Yamada

Akira Ito

From the Executive Committee

2024’s Universal Robotics Challenge was held simultaneously online and in-person, and it wouldn’t have been such a stunning success without the cooperation and hard work of numerous people.
We’d like to offer our heartfelt thanks for the help of all those involved as well as for the support given to us by our sponsors.

This competition marks eight years of the Universal Robotics Challenge working to include a diverse number of participants not only from here in Japan but across the globe. We will continue our proud tradition of teamwork to help spread the word of the Universal Robotics Challenge and make 2025’s competition all the better.

We sincerely appreciate your continued support and guidance.