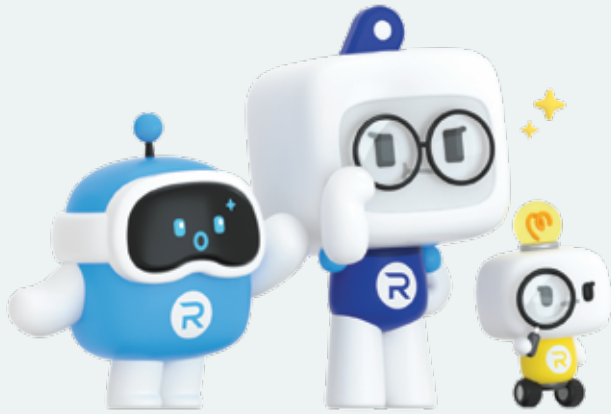


LEARNING FUTURE



 **ROBOROBO**

Smart Education with **ROBOROBO**



How can we incorporate
Robotics, AI and Coding?

Solution is **ROBOROBO!**

► Education Solution



Learning Contents & Solutions

- Have content specialists
- Published 100+ STEM education books
- Provide Educational Consulting

Educational Training & Support

- Provide Teacher training programs
- Provide Teacher's manual
- Nurturing pools of robotics teachers

Coding & Robotics Contests

- Curriculum support
- Software support
- Issue Teacher certificate

We provide teaching tools and curriculums for K-12 levels. The lessons plans we offer are based on **NGSS** curriculum, which is a **U.S. standard set for what students should know and be able to do.**

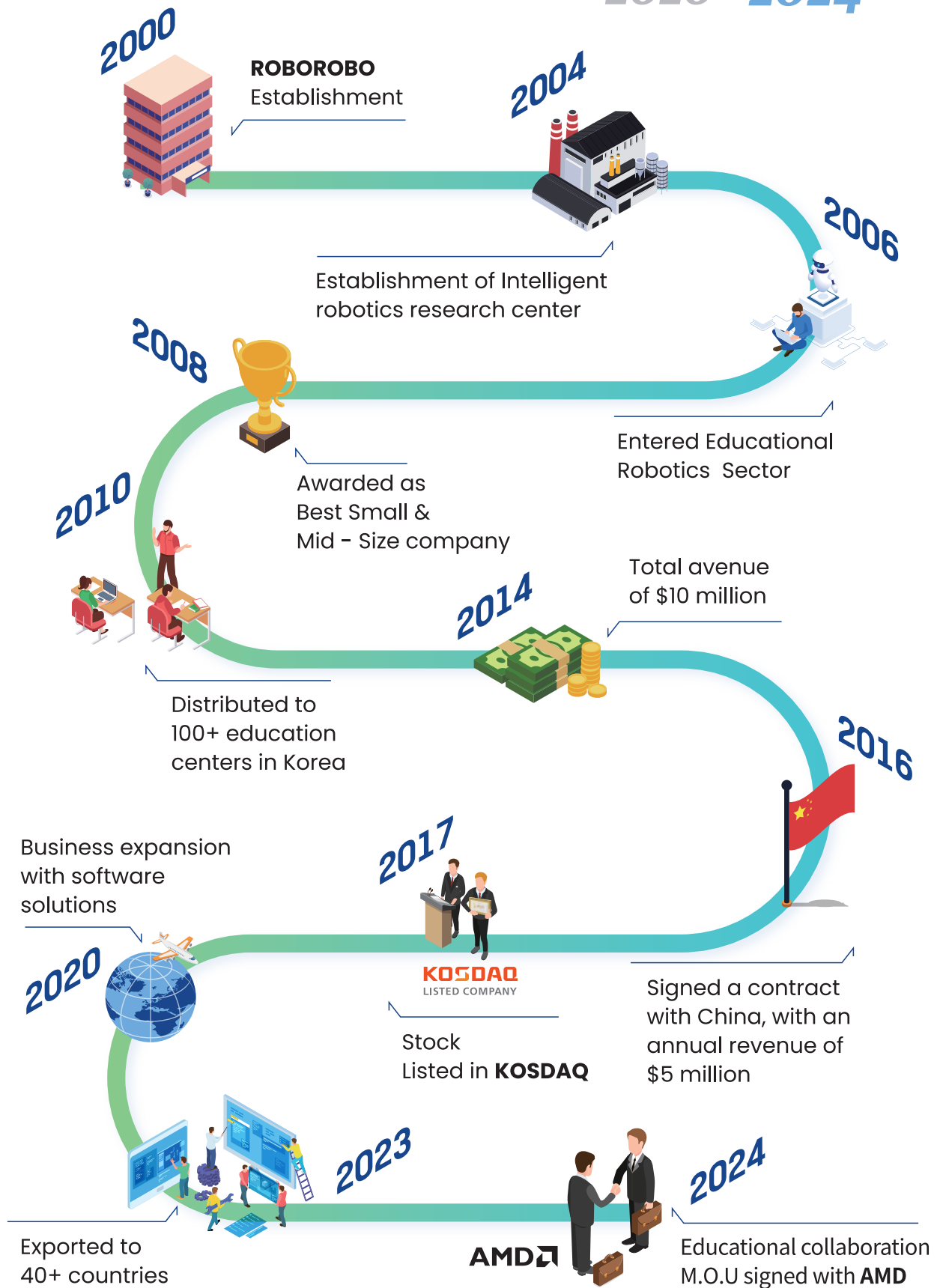


* **NGSS (Next Generation Science Standards) is a registered trademark of WestEd.**

Neither WestEd nor the lead states and partners that developed the Next Generation Science Standards were involved in the production of this product, and do not endorse it.

History

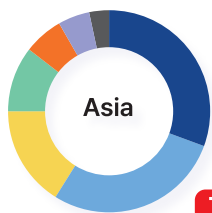
2020 - 2024



Exported Countries

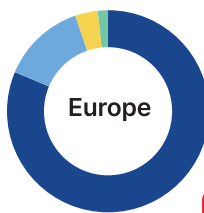


Distribution of product exports and sales by country based on year 2023



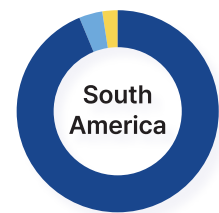
TOP 6

- **Hong Kong**
- Malaysia
- Mongolia
- Kazakhstan
- Saudi Arabia
- UAE
- Philippines
- Taiwan
- Sri Lanka
- Singapore



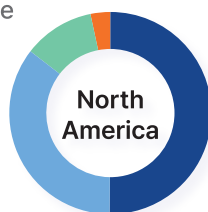
TOP 4

- **Russia**
- Ukraine
- UK
- Greece
- Sweden



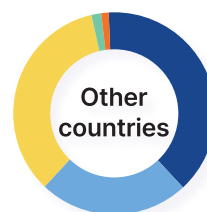
TOP 3

- **Brazil**
- Colombia
- Ecuador
- Peru



TOP 4

- **Mexico**
- US
- Panama
- Guatemala

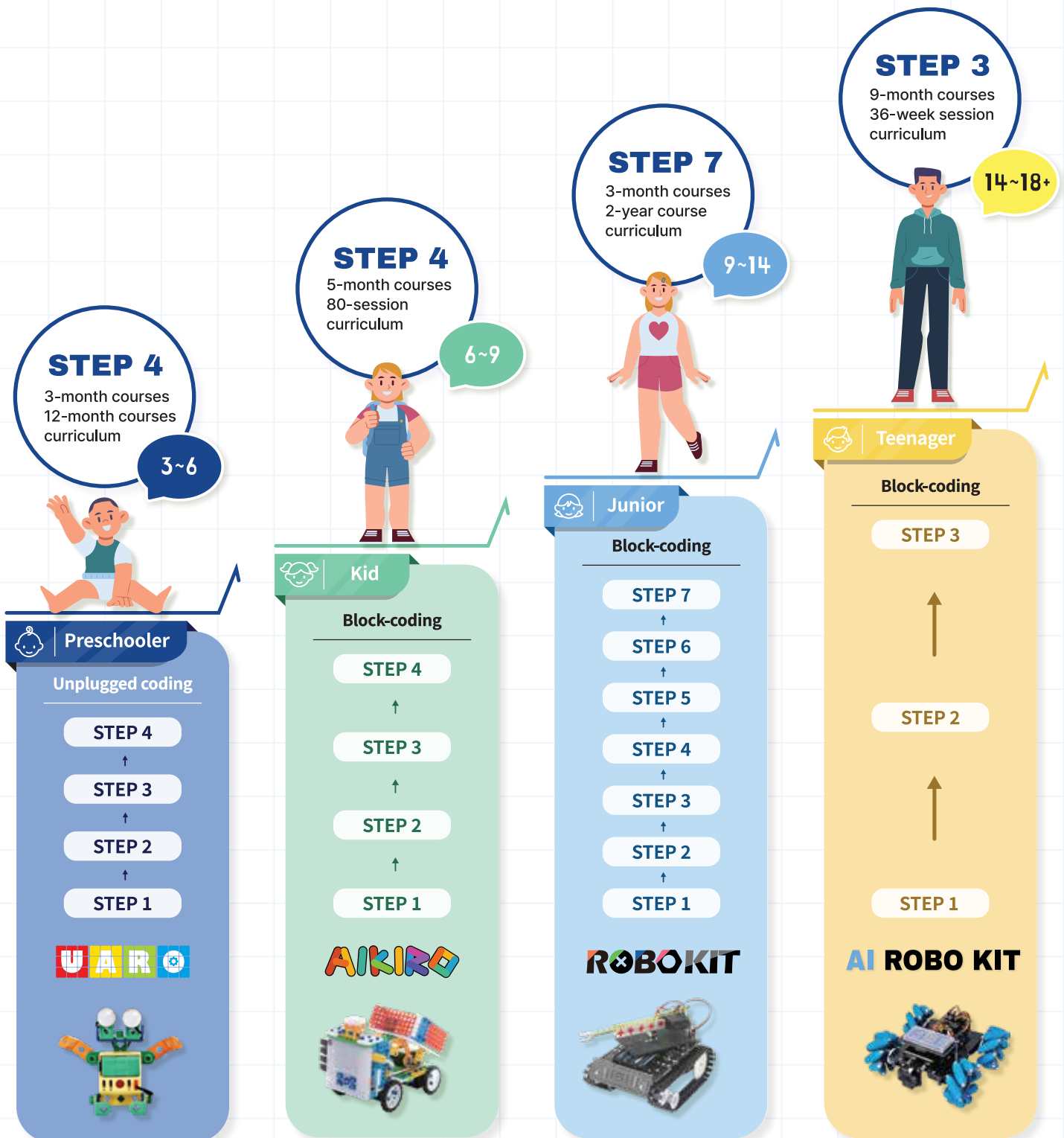


TOP 5

- **New Zealand**
- South Africa
- Australia
- Tanzania
- Ghana

Curriculum Plan

Recommended Age of Use



The above target age is recommendation from manufacturer only, subject to change depending on each country's exposure to IT and Robotics education.



Play and Learn Together!

THE FIRST-EVER BUILD & CODE EXPERIENCE FOR CHILDREN



UARO is designed for kindergarten-aged children to learn how to code and assemble robots from scratch. Its unique building system allows children to easily use their imagination in real life, while the simple coding system helps develop their computational thinking.

Play and learn together!



Easy - to - Build

Patented UARO frame and assembly tools for comfort and durability

UARO assembly parts are designed for kindergarteners. The parts are designed and manufactured in bigger size than ordinary assembly parts which make them safer for children of the age.



Patent No. 10-2015-0113976
Patent No. 10-2015-0119544

Coding Board & Coding Blocks

Coding block that activates the motion just by placing the blocks in order

Robots can be built and activated by children using coding board and coding blocks. Also it is coded to operate according to the order sequence of various blocks.



Student Workbook



NURI PROCESS

01 Social Relationships

02 Nature & Discovery

03 ART experience

04 Physical Activity

05 Communication

Student workbook that can be used selectively, including the five units of the Nuri course

UARO has four levels each consist of one workbook and assembly book. UARO workbooks were created following Korean Nuri, and U.S. NGSS curriculum , which is an educational program designed for kindergarten children.

Smart Coding Application



Smart coding application that allows wireless control just by coding the command words

Children code with fun using cartoon characters in the interactive UARO app. Robot and coding board can be connected with the app using Bluetooth.



My Kid's First Coding Lesson

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'Click' to assemble, and 'Poke' to code

ASSEMBLE AND CODE YOUR UNPLUGGED ROBOT!



AIKIRO is designed for the 1st and 2nd grade students to customize robots utilizing various frame modules and code with coding pen and coding cards. AIKIRO is fun and engaging learning tool for children, developed by robotics education experts. The robot can be coded freely even without a PC, through a unique coding method.



Connect & Assemble with Rivets

AIKIRO is composed of simple and sturdy tools that are easy to assemble and disassemble

The frames and rivets used in the assembly of AIKIRO are designed with an easy fastening method and a robust structure to allow learners to easily create models.



Rivets



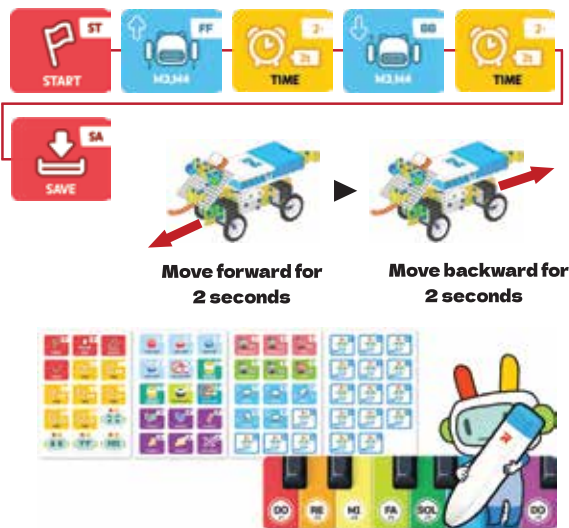
Rivet Removal Tool



Code with Pen & Cards

Makes coding and algorithm learning easy even without a PC

Children can build and activate the robots using the coding board and coding blocks. Robot can be coded to operate according to the order sequence of block placement.



Student Workbook



Story



Explore



Assemble



Code



Activate

Storytelling workbooks that fosters fun and concentration

AIKIRO workbooks are easy to approach due to its fun cartoon characters and interesting story. Each chapter help students learn about different things related to robot they about to assemble and code. Children can learn the fundamentals of robotics and creative thinking skills by reading through the chapters.

Smart Coding Application



Various sensors and controllers for robot control

AIKIRO is equipped with various output circuit elements such as motors, LEDs, melodies, as well as a variety of digital and analog sensors capable of detecting the surrounding environment, thereby assisting learners in their creative activities.



Unplugged Coding Robot

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ME

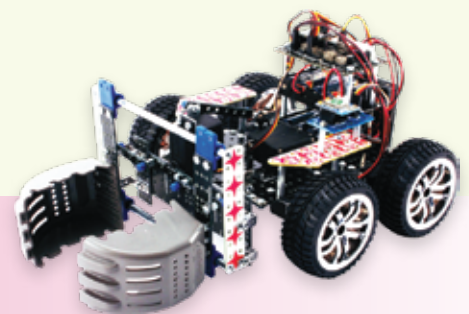


Our N°1 Bestselling Robot Kit Abroad!

OUR BESTSELLER FOR AFTERSCHOOL PROGRAMS



ROBOKIT is designed for students ranging from age 9 to 12. Unlike other products, Robokit utilizes a coding program called "Rogic" that is specifically developed for Robokit, providing friendly features that also allow beginners who are unfamiliar with coding to operate it easily.



Experience of Robot Mechanisms

Understand how robots work using sensors and motors

Robokit includes real life bolts, nuts, screwdriver and other assembly parts, which is helpful for children to be familiarized with robots in real life. Also, they can learn the principles of mechanical devices through sensors, motors, and various output circuit elements.



Easy - To - Use Software ROGIC

Utilize Rogic program to code using PC/Smart Devices

GUI (Graphical User Interface) environment of Rogic eases difficult and complex coding. Through the process of contemplating, coding, and debugging the movements of the created robot, learners can reinforce the basic concepts of coding such as sequential algorithms, conditions, and iterations.



Seven Learning Steps



Learn robot step by step using the workbooks

Robo Kit has a total of seven levels along with workbooks and lesson plans based on NGSS for each of them. Robo Kit workbooks teach how each robot component is used in the daily life and foster the understandings of the principle and creativity.

From A to Z of Robotics with Robo Kit

Step 1



Basics of Coding

Step 2



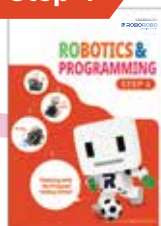
Principles of Remote control & Servo Motor

Step 3



4-Wheel Drive & its Coding

Step 4



Sound Sensor & High Speed Motor

Step 5



Bluetooth Driving Principle and Coding Controller

Step 6



Expert Coding & High Level Assembly

Step 7

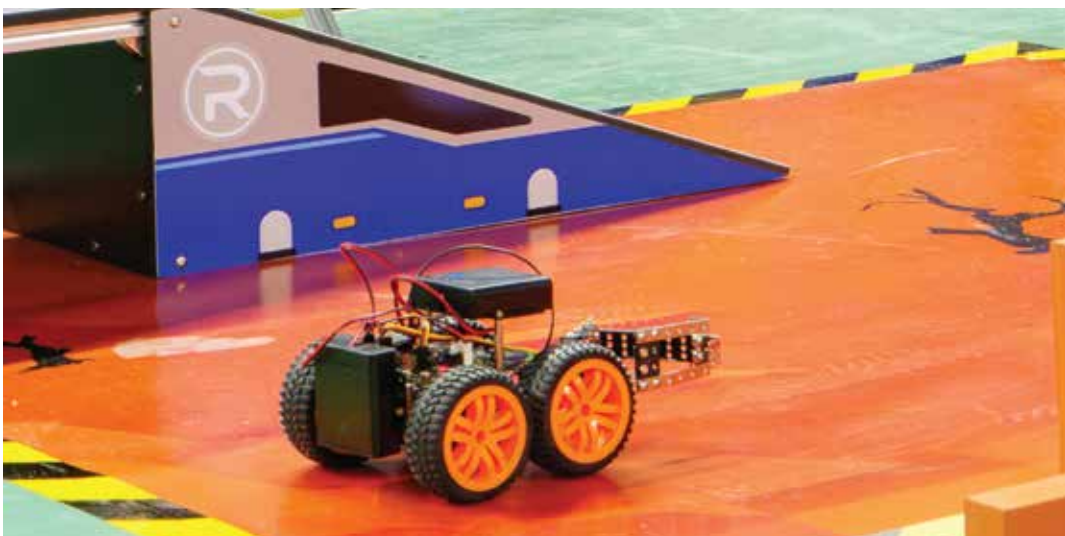
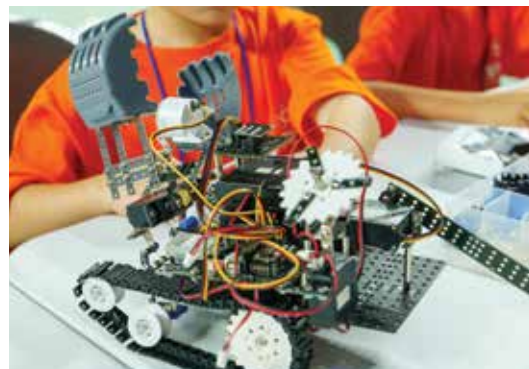
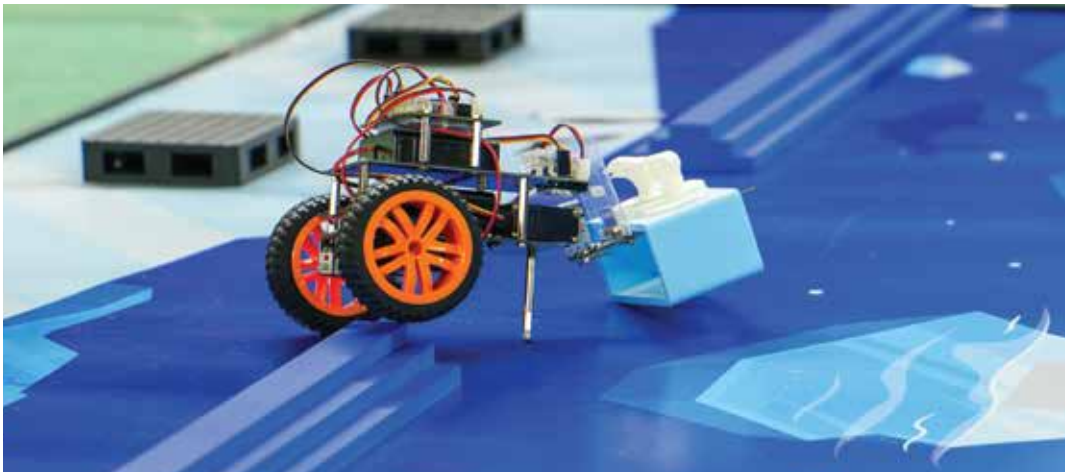


Real Life Robot Modeling

ROBOKIT

From Robot Assembly to Basic Coding

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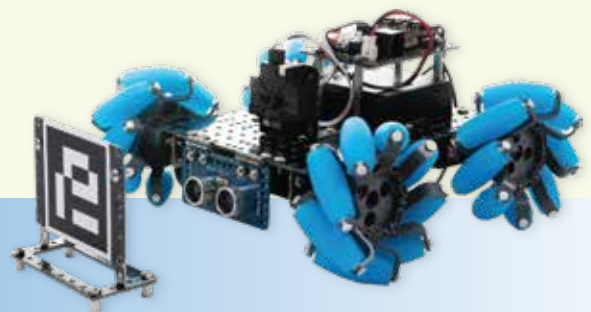
AI ROBO KIT

Do It Yourself

FROM AI TO SMART MOBILITY



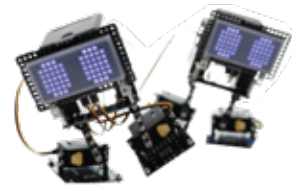
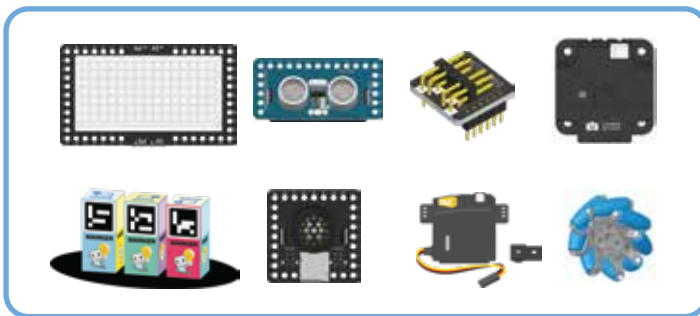
The AI Robo Kit is designed for middle and high school students who already have experience with coding robots. This product line supports a variety of activities, allowing learners to engage in robot coding, including robot structure design, creation, and AI coding.



Assemble AI Robots Yourself

AI kit that can create anything and operate anything freely

Learners can create robots of different forms and functions using a variety of sensors such as ultrasonic sensors, accelerometer sensors, and rotary position sensors. Also, can incorporate output devices like dot-matrix displays, servomotors and wireless controllers to showcase diverse performances.



Bipedal Robot



Self - Driving Car

SCRATCH Based Software - ROGIC

Coding activities that enable users to learn and utilize various skills

Learners can engage in a wide range of creative coding activities, including face data learning and recognition, ArUco marker recognition, and image learning and recognition. Moreover, they can learn how to develop games within Rogic and integrate them with their assembled robots and combine them with assembled robots.

01



Recognition of
ArUco Marker

02



Image Learning
& Game Development

03



Face Data Learning

Three Steps of Block Coding and Learning AI



AI Courses



Block Programming



Game Maker & AI Vehicle

Can create a variety of robots according to the subject designed by the user
The AI Robo Kit supports a variety of activities, allowing learners to engage in robot coding, including robot structure design, game-making, and AI coding.

Learning Python



```
def __pin_mode_init__(self):  
    try:  
        for number, data in self.__pin_data_dict.items():  
            protocol = ProtocolData()  
            protocol.data = [0xFF, number, data.mode]  
            self.__protocol_buf.append(protocol)  
    except:  
        print('Pin mode init error | Pin mode data error!')  
        return False  
    return True  
  
def __syntax_init__(self):  
    try:  
        for number, data in self.__pin_data_dict.items():  
            if data.mode == 16:  
                self.__pin_init_init(number, 1)  
    except:  
        print('Syntax init error | Syntax mode data error!')  
        return False  
    return True
```

```
works > Python.Framework > Versions > 3.10 > lib  
python3.10 -i  
protocol.data = [0x00, 0x01, 0x00, 0x01]  
protocol.delay = 10 * 0.001  
self.__protocol_buf.append(protocol)  
  
if self.__pin_mode_init__() is False:  
    print('Pin mode init failed')  
    return False  
print('Pin mode init done')
```

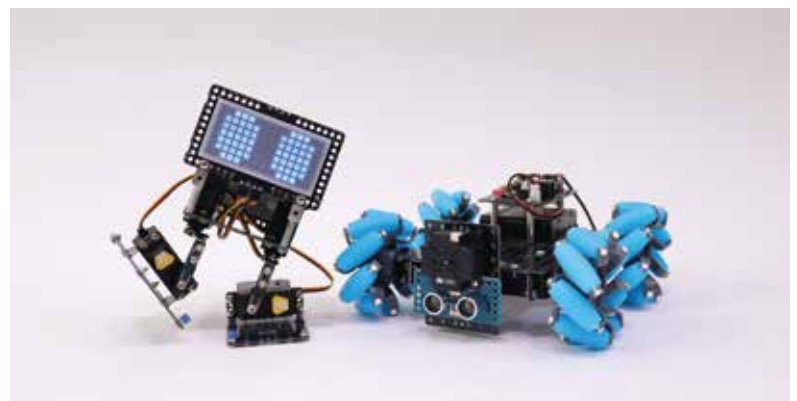
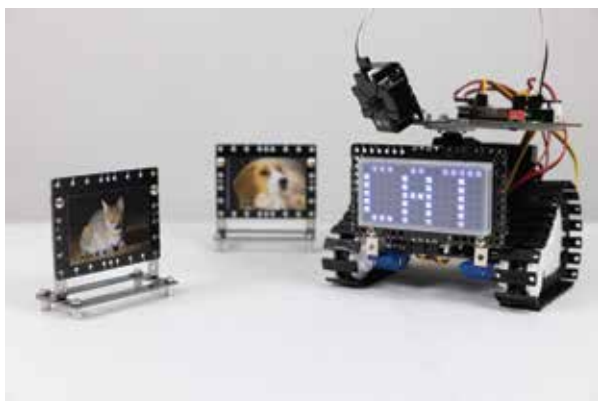
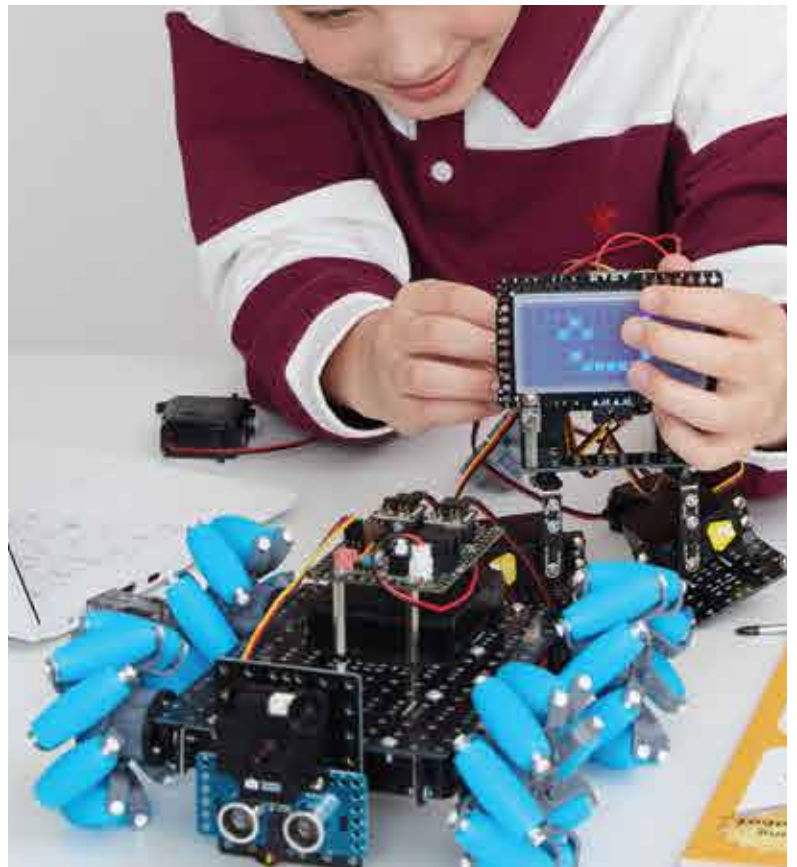
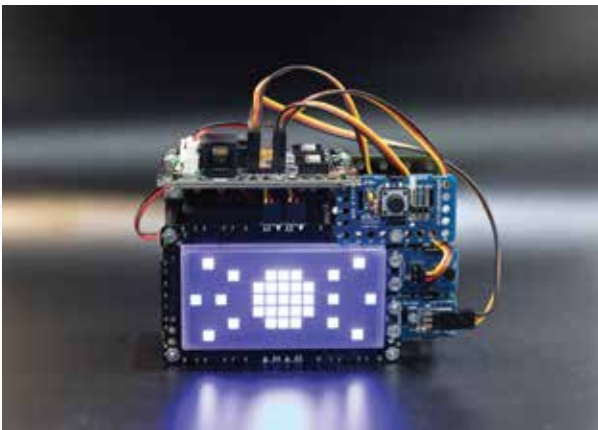
Library support for convenient control

AI Robo Kit provides library for hardware control block on RS Rogic to control the robot under the Python environment.

AI ROBO KIT

Robotics & Coding Solutions

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ROBO ROBO LEARNING FUTURE

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 **Instagram:** @roborobo_official

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www.roborobo.co.kr

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