



ArTec®

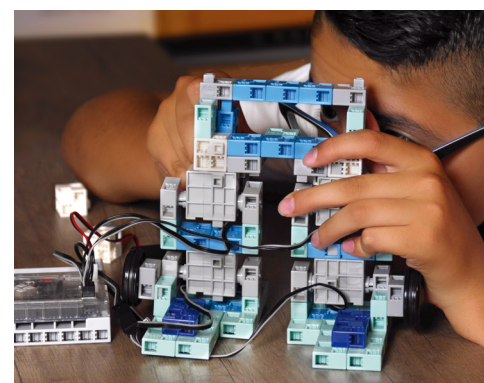
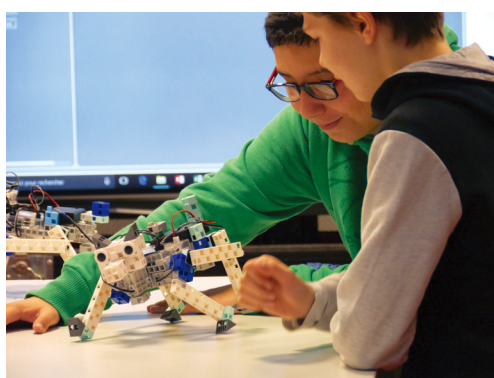
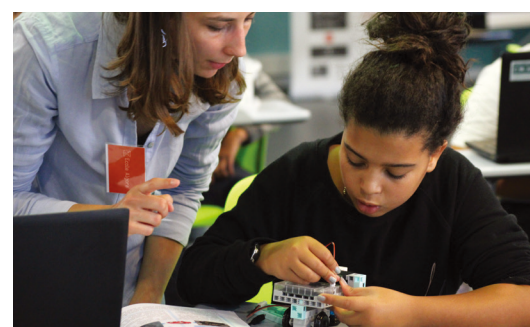
STEAM Solutions

Robotics, programming, and art for kids from kindergarten to high school

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Education is changing.

With advances in robotics and AI changing the labor market, the skills needed by society are expected to shift, relying less on traditional skills and more on abilities which can be used to digest diverse sources of information and create something truly novel and revolutionary. To nurture these abilities, a sharp focus is being placed on developmental learning in logic and problem solving to raise the standard of math and science education. This is true not only for Japan, but for the whole world.

Artec has spent more than 60 years developing educational materials used from preschool to university, and our focus in recent years on delivering content for the after school and extracurricular market has received no small amount of praise.

Five reasons to pick Japan's top programming school



★ Based on a General Research survey.



Winner of the 2018 METI Monodzukuri Nippon Special Prize



Artec is proud to take home a Special Award in the Cultivating Human Resources Division of the Ministry of Economy, Trade, and Industry's Seventh Monodzukuri Nippon Grand Awards for our promotion of youth-oriented robot programming education using block-based robot kits.

★ Survey Overview

- #1 Parent's Choice Programming School
- #1 Programming School in Visible Improvement in a Child
- #1 Programming School for Motivated Learning
- #1 Programming School for Improved Study Habits
- #1 Teacher's Choice Programming School

- Survey Method: Online Survey
- Survey Period: March 1-5, 2019
- Survey Title: Online Impressions Survey of 10 Programming Schools
- Survey Target: 1,050 parents (ages 20-40)
1,018 schoolteachers (ages 20-50)
Monitoring Survey by General Research Inc.



Artec relies on 60 years of experience
and results to deliver quality content.

CONTENTS		Ages 5-6	Ages 7-11	Ages 12-15	Ages 16-18	Ages 18+	Supports	Page
CLASSROOM LEARNING	An early introduction to real robotics and programming!		Artec Robo Early Education Set				Windows	3
	52 hours of lessons on robotics engineering and programming!		Artec Robo Education Set				Windows & Mac OS X	5
	Real Python programming with 20 hours' worth of content!			Artec Robo 2.0 Python Edition			Windows & Mac OS X	7
AFTER SCHOOL EDUCATION	Two years' worth of robotics, programming, and puzzles for kids!		Artec® InnovatorAcademy Early Years: Robots & Programming Logic Puzzles				Windows	9
	A three-year course in applied robotics for junior high schoolers!		Artec® InnovatorAcademy Robot Programming School + Mastery Course				Windows & Mac OS X	11
	Combine art, robotics, and programming and learn to work together!		STEAM Workshop SCIENCE TECHNOLOGY ENGINEERING ART MATHEMATIC				Windows	13
	Go on a digital science adventure through 72 exciting experiments!		SCIENCE WORLD				Windows	15
	Learn anywhere with online virtual robotics!		GO TECH^{UP}				PC and Tablet	16
★	A year-long introductory Python programming course for adults!					Python Programming for Adults (12 months)	Windows Mac OS X	17

★ Continuing Education

★ Given ages should only be used as an estimate.

Artec® Robo Early Education Set

91631

Ages
6-9

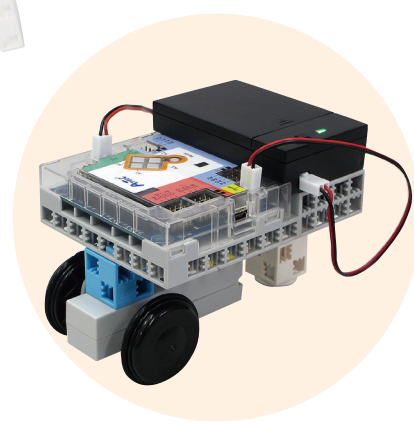


An introduction to robotics and programming for kids 6-9.

The Early Education set gives kids a fun and engaging introduction to the machines in the world around us.

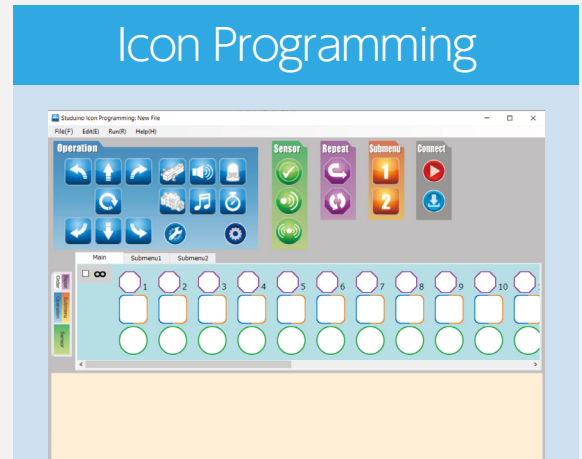
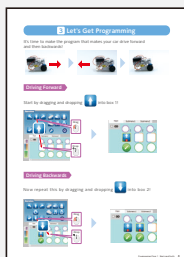
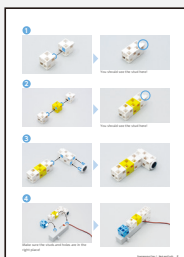
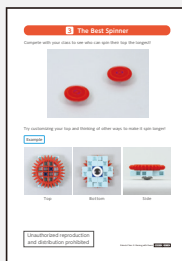
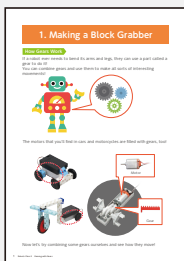
Robots

Programming



Use blocks to build robots, learning the basic principles of motors and mechanisms such as linkages, rack and pinions, and gears.

Learn the programming basics by using the Icon Programming Environment to program motors, LEDs, Buzzers, and IR Photoreflectors.



The Icon Programming Environment is a colorful, kid-friendly introduction to real programming, allowing them to control robots, use repeats and functions, and even convert their program into Arduino!

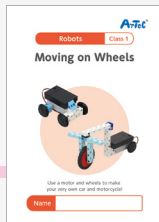
Each textbook guides children through the process of learning about, building, and experimenting with each project, keeping them engaged as they learn real-world mechanical and computer engineering skills.

Hours of content in 12 45-minute lessons!

Textbooks ★ Sold separately

Robots

Programming

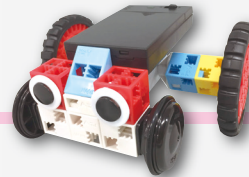


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Class 1 (2 lessons)

Moving on Wheels

Use a motor and wheels to make your very own car and motorcycle!

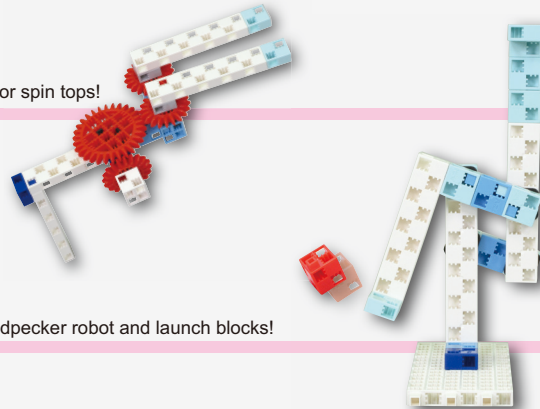


80531

Class 2 (2 lessons)

Gaming with Gears

Use mechanisms made of gears to grab blocks or spin tops!



80532

Class 3 (2 lessons)

Making Things Move

Learn how to transfer movement to make a woodpecker robot and launch blocks!

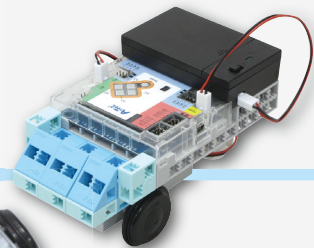


80527

Class 1 (2 lessons)

Back and Forth

Use a computer and program your car to drive!

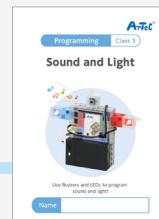
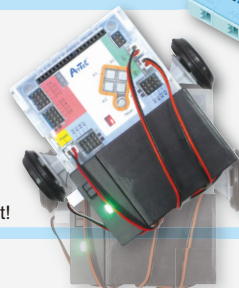


80528

Class 2 (2 lessons)

Left and Right

Use two DC Motors to make a car that turns left and right!

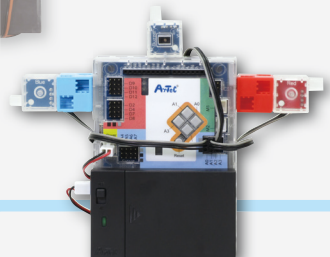


80529

Class 3 (2 lessons)

Sound and Light

Use Buzzers and LEDs to program sound and light!



Artec Robo Education Set

Basic

77534

Complete Edition

91629

Ages

8+



Windows & Mac OS X

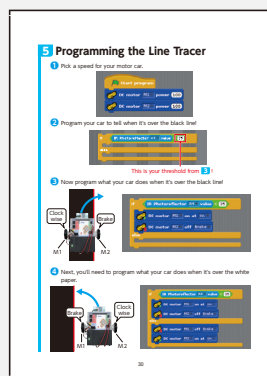
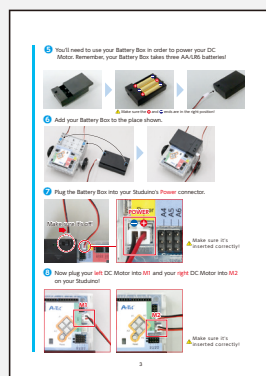
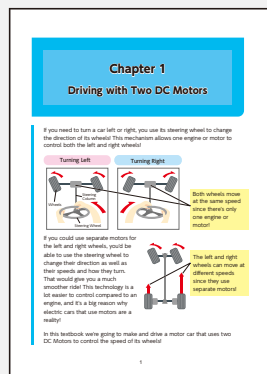
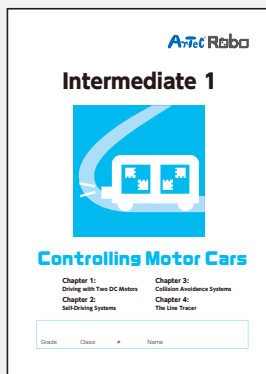


Block programming from the simple to the advanced.

THE CONCEPT

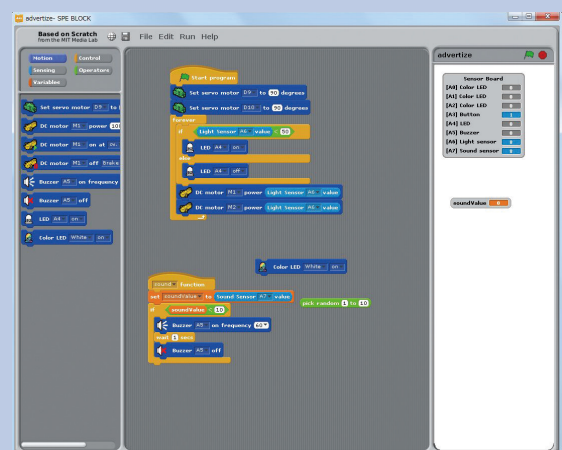
Real-world applications at any level.

The ArtecRobo Education set offers a perfect entry point to learn the basics of programming using sensors and actuators. Featuring up to 16 textbooks with 52 hours of content, it also includes a teacher's manual to give instructors a step-by-step guide to the ArtecRobo platform.



Each four-part textbook teaches students not only how to build and program each project, but how these concepts are applied in the real world, equipping them with skills they can use to make something amazing of their own.

Block Programming



Based on a customized version of Scratch, our Block Programming Environment offers a wide variety of blocks which allow you to program using syntax close to real programming languages.

★ Scratch was developed by MIT Media Lab.

52 hour-long lessons in 16 booklets.

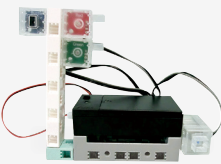
Textbooks ★ Sold separately

#077534 **Education Set**
(covers Basic Course)

#091629 **Education Set Complete Edition**
(covers Basic Course, Intermediate Course, Advanced Course)

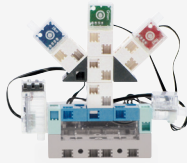
Basic Course 4 Booklets = 16 Class Hours!

Vol. 1 Stop and Go



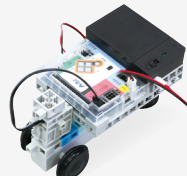
- How Traffic Signals Work
- Making a Pedestrian Signal
- Making a Push-button Signal
- Making an Accessible Signal

Vol. 2 Making a Light Show



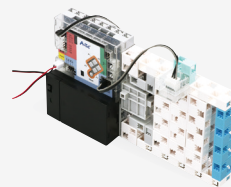
- A Town Full of Light
- Making Your Light Show
- A Light Show with Sensors
- Making Sound-powered Light Show

Vol. 3 Making a Robot Car



- Driving Safe
- Electric Cars with Motors
- How a Car Turns
- Self-driving Cars

Vol. 4 Automatic Doors



- All About Automatic Doors
- Building an Automatic Door
- Programming Doors with Sensors
- A Safer Automatic Door

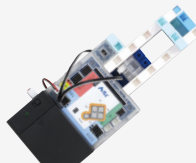
Intermediate Course 5 Booklets = 20 Class Hours!

Vol. 1 Controlling Motor Cars



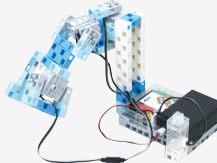
- Driving with Two DC Motors
- Self-Driving Systems
- Collision Avoidance Systems
- The Line Tracer

Vol. 2 Electronic Instruments



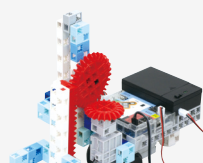
- Programming with Variables
- An Electric Music Box
- Making a Guitar
- A Better Guitar

Vol. 3 Robots at Work



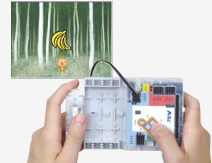
- Three-Axis Arm Robots
- Controlling an Arm Robot
- Variables and Servomotor Angles
- Making Deliveries

Vol. 4 Machines and Mechanisms



- Machine Elements
- Linkage Wipers
- Forklifts with Gears
- Forklift Control

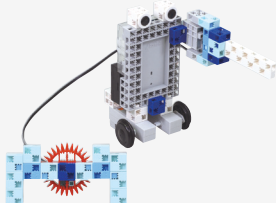
Vol. 5 The World of Games



- Game Development and Character Mode
- Banana Catcher
- Expanding the Game
- Show and Tell

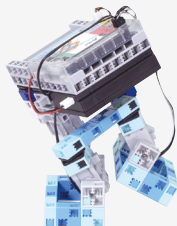
Advanced Course 4 Booklets = 16 Class Hours!

Vol. 1 Playing with Controllers



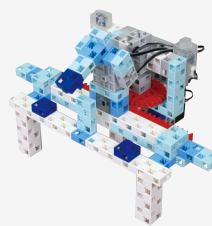
- All About Accelerometers
- Car Control
- Making a Battlebot
- Robot Dueling

Vol. 2 All About Walkbots



- Building a Walkbot
- The Bipedal Walkbot
- Programming the Walkbot
- Improving Your Walkbot

Vol. 3 The Factory Scanbot



- Building a Scanbot
- Improving Your Scanbot
- Sorting Blocks
- Counting Things Up

Vol. 4 Advanced Game Making



- Making a Vertical Shooter
- The Basics of the Game
- Building the Game System
- Show and Tell

Artec® Robo 2.0 Python Edition



A low-cost introduction
to Python programming.

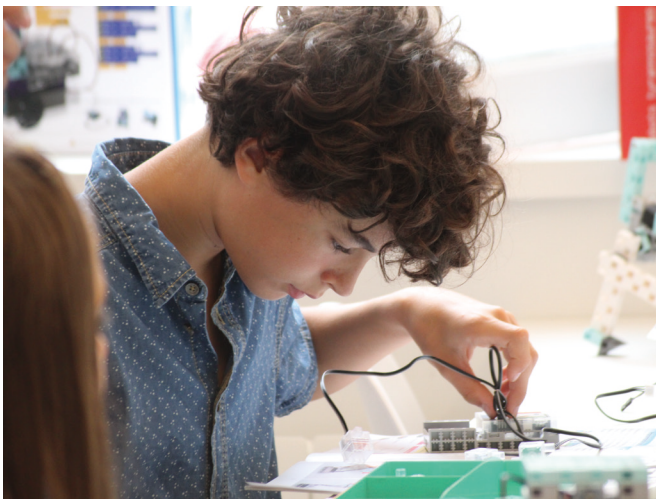
Includes a detailed
teacher's manual

95030

Simple Kit

95021

Extended Edition



With over 50 hours of engaging programming and robotics content, ArtecRobo 2.0 Python Edition allows you to take full advantage of the ArtecRobo 2.0 platform. By programming a full range of built-in and external parts, you can create everything from self-driving cars to advanced wireless networks and servers.

Learn About

Programming Basics: LEDs and Motors

Programming LEDs

3-5 hours of content

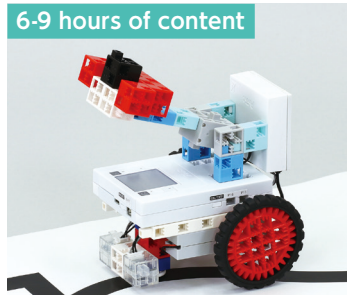


Learn programming basics like sequences, repeats, and conditions to recreate a variety of traffic signals, from pedestrian signals to push-button signals for high traffic roads.

Hands-On Programming: Automating Industry

Automated Deliveries

6-9 hours of content

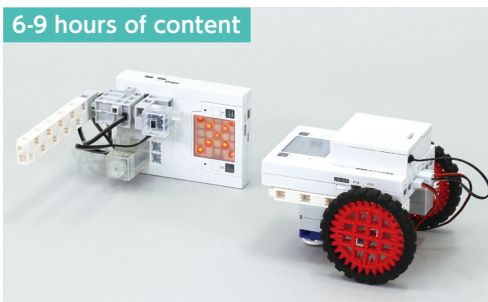


Apply concepts of measurement and control and take on the challenge of making an automated delivery system which can transport blocks to exact locations on the course.

Advanced Programming: Networking Computers

Electronic Toll Collection

6-9 hours of content



Use inter-device connectivity to build complex systems, like networks of traffic lights or electronic toll collection systems which help manage the flow of traffic and smoothly navigate highways.

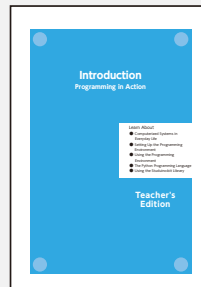
★ Advanced programming projects require two or more kits.

With 14 projects to offer, ArtecRobo 2.0 Python Edition offers a range of challenging and fun exercises, giving students knowledge that they can both observe and apply in the real world.

Learn Python robotics with up to 51 hours of lessons.

Programming in Action

★ Sold separately.



Familiarize yourself with the fields of programming and robotics and get an overview of the ArtecRobo 2.0 platform and the Python programming language, including concepts like libraries.

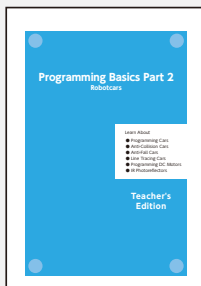
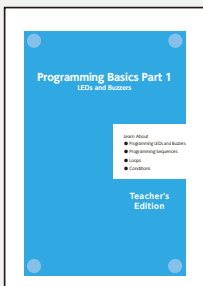
95030 Simple Kit

(covers Programming Basics lessons)

95021 Extended Edition

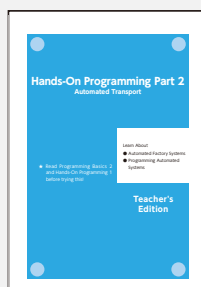
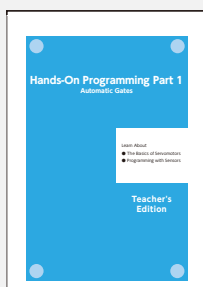
(covers Programming Basics, Hands-On, and Advanced Programming lessons)

Programming Basics Two booklets with up to 10 hours of lessons



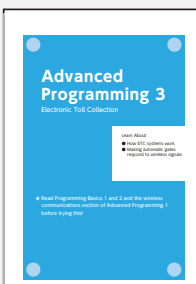
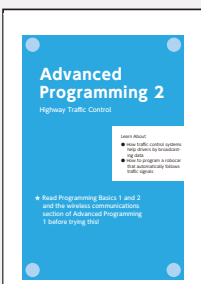
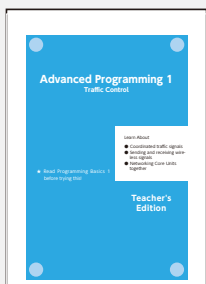
Learn programming fundamentals like sequences, loops, and conditions and use them to program robotic parts including LEDs, Buzzers, and IR Photoreflectors as well as actuators like DC Motors and Servomotors.

Hands-On Programming Two booklets with up to 14 hours of lessons



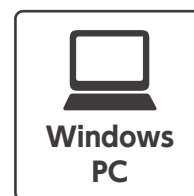
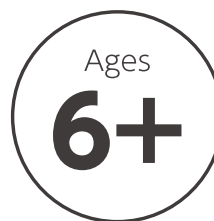
Gain a more complex understanding of programming by tackling complex topics such as variables and integrating them with concepts learned in the previous textbooks. These lessons focus on student-centered, problem-based learning, requiring students to use their programming knowledge to solve real world challenges.

Advanced Programming Three booklets with up to 27 hours of lessons



These advanced projects delve deeper into problem-based learning. Students will use Python to manage the flow of traffic, design intelligent transport systems, and develop an electronic toll system for highways.

Artec® Innovator Academy Early Years



Robots &
Programming

91628

Logic
Puzzles

93907

Teacher's tips
for every lesson

Features 96 60-minute
lessons for two years
of learning.

The award-winning programming school!

★ Based on a General Research survey (page 01)

Japan's choice for early STEM learning.

THE CONCEPT

Why not get an early start?

The Innovator Academy Early Years program was developed in response to parents whose children were too young to attend our Robot Programming School. After years of careful development, trial-and-error, and feedback, we've created the country's top pick for a headstart in STEM learning.

Artec Innovator Academy: Early Years blends three components:

Puzzles



Robots



Programming



Follow simple rules to match shapes and turn gears while learning how to use visualization and spatial reasoning to find solutions.

Spatial Reasoning

Focus



Combine blocks, motors and gears to make a range of real mechanical robots and learn how they work before making your own.

Creativity

Expression



Use approachable, kid-friendly software to learn the programming basics by controlling motors and lighting up LEDs.

Logic

Problem-Solving



Logic Puzzles

Great for training

Spatial Reasoning

Focus

Combine blocks and gears, challenging your brain by solving 12 types of puzzles with simple rules but tricky answers!

Mixing and matching blocks to find the right answer is a great way to train visualization skills!

The Curriculum



Remarkable Robots

Great for training

Creativity

Expression

Build 24 real mechanical robots, combining blocks, motors, and gears to learn how each robot works and the mechanisms which power them before making one of your own!

The Curriculum



Prime Programming

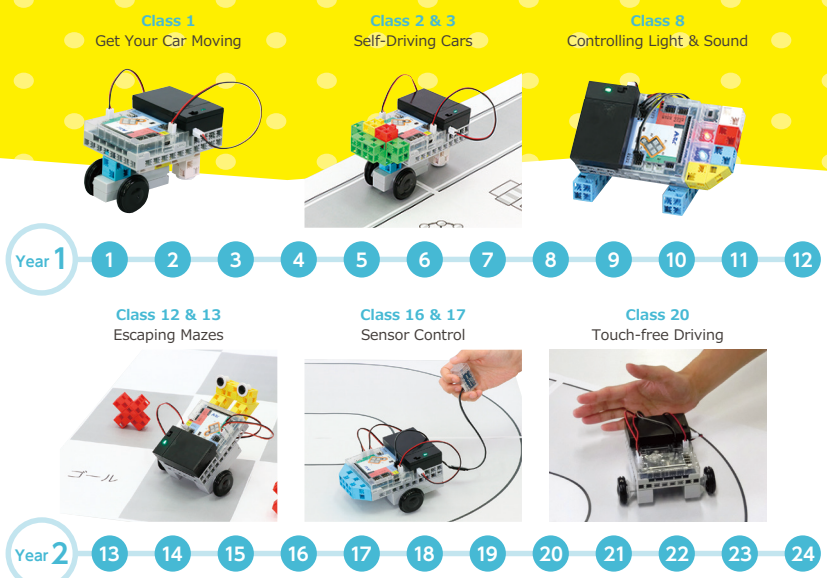
Great for training

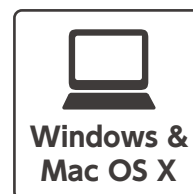
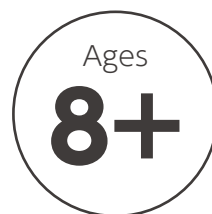
Logic

Problem-Solving

Use sensors and LEDs as you build and program 13 fun robots, learning how to make cars drive and turn on lights using a beginner and kid-friendly software environment!

The Curriculum





Robot Programming
School

Mastery
Course

93751

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Teacher's guidelines
for every lesson

The award-winning programming school!

★ Based on a General Research survey (page 01)

Features 80 90-minute
lessons for three years
of learning.

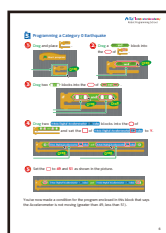
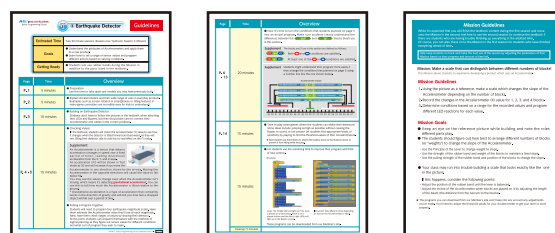
Japan's top pick for elementary, junior high, and high school learners.

THE CONCEPT

Math and science matter.

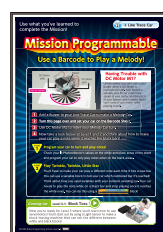
The Innovator Academy Robot Programming School is a comprehensive three-year robotics program tested here in Japan and programming workshops across the world. We offer the following key components in 80 90-minute lessons:

Detailed teacher's guidelines for every lesson, explaining the goals, lesson structure, and tips to help guide your classroom and manage your time effectively.



Student textbooks covering everything from real-life applications of the technology to building and programming it in order to teach real robotics knowledge.

Applied learning missions after every lesson to test students' newly-acquired knowledge and give them an opportunity to exercise their own creativity and problem-solving skills.



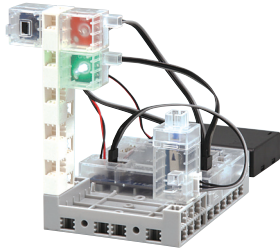
A wealth of robots over 80 lessons.

Feature 1 Level-Up Learning

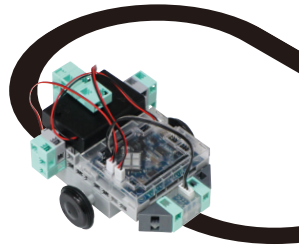
Building robots with diverse mechanisms teaches children not only how to make robots, but how they work and how to apply their knowledge. Each lesson steps up the content, keeping students engaged and having fun.

Feature 2 Engaging Projects

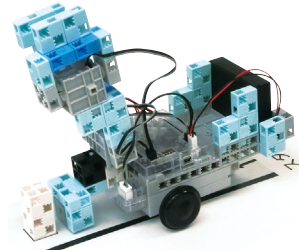
Our program offers a wide variety of robots, from the traffic signals and cars you can see in real life to two-player games which are not only fun to make, but broaden interest in the world around you.



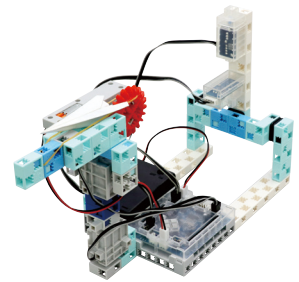
Stop and Go



Line Tracer



Arm Automation



Airplane Launcher

Year 1

1

2

3

4

5

6

7

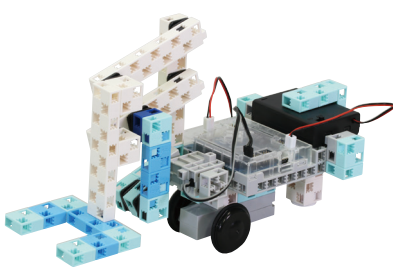
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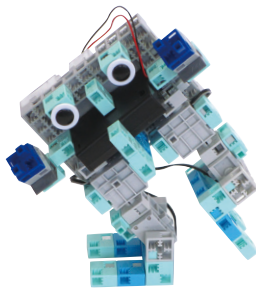
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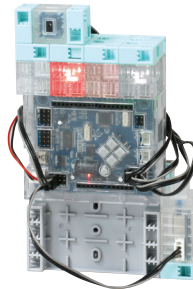
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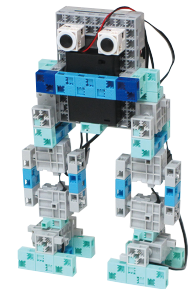
Walking on Four Legs



Ways to Go



Test Your Reflexes



Eight Axes on Two Feet

Year 2

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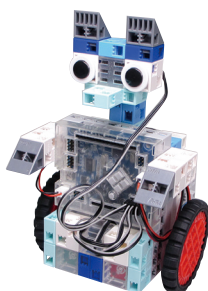
Year 3: The Mastery Course

For Robot Programming
School Graduates

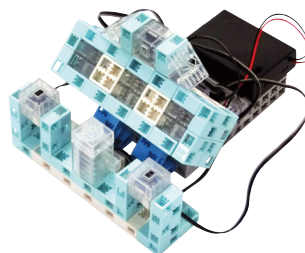
The Mastery Course is an optional expansion which adds an additional 18 months' worth of advanced robotics challenges. Focusing on the three major robotics engineering fields of sensing, software and mechanics, this curriculum offers a well-rounded education in STEAM. The Mastery Course is highly recommended for kids interested in a career in science and engineering.

★ **STEAM** is an acronym which stands for **S**cience, **T**echnology, **E**ngineering, **A**rt, and **M**athematics.

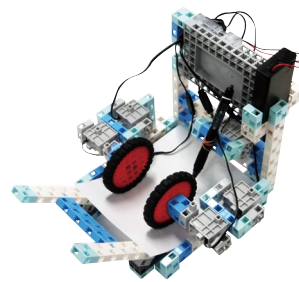
★ Mastery Course kit (sold separately) required for Mastery Course lessons.



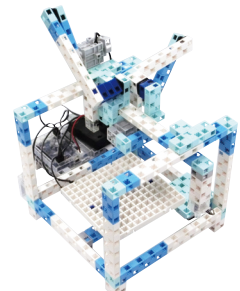
Making a Petbot



Making a Video Game



Making a Plotter



Block Snatcher

Year 3

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An engaging group learning experience in art, robotics, and programming.

THE CONCEPT

Team-based learning for kids.

The strong relationship between life and technology will only get stronger, and our world finds itself in need of new kinds of people: ones that can not only bring about change, but those who can bring a team together to solve the challenge at hand. Our STEAM-based curriculum allows kids to join together with friends as a team, learning how to use scissors, pencils, and other materials as well as mastering the basics of robot programming as they make real art and robots.

1. Art



Each student uses the cardboard, construction paper, and other materials in the classroom kit to make one part of the project.

2. Robotics



Students work as a team to build their robot from blocks, motors, gears, and other parts.

3. Programming



As a team, students program their robot before transferring the program to make sure it works.

4. Completion



Students use trial-and-error to combine their artwork, robot, and program into a finished project.

Learn and play together.



10 hours of comprehensive STEAM learning perfect for workshops and day events.

The 10-hour STEAM workshop curriculum combines robust arts and crafts with robotics learning using blocks, computers, and electronic parts. Modeled on learning practices from around the world, our textbooks allow even first-time STEAM learners to jump right in and have fun.

Make your own story as you learn art, programming, and robotics.

Junglescape Explorer (example curriculum)

Art

Use paper, paint, and pencils to make a junglescape and terrain.

Robotics

Learn about four-wheel drive vehicles and get your robot car to navigate different terrain.

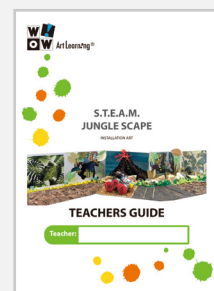
Programming

Program the car to drive itself for the allotted time, learning the relationship between time and distance as you program.



The student kit includes...

- ★ Robotics and programming portions use the classroom kit.



The Textbook

SCIENCE WORLD

SCIENTIFIC
ENTERTAINMENT

Ages
6+

Windows
PC



Take your ladybug sensor on a digital science adventure through 72 exciting experiments!

Use your sensor and 14 fun parts to experiment with light, sound, electricity, and temperature and see the results on the screen in real time! The game-like software means that even smaller children can focus as they move through each experiment, and the included textbook set adds hours more of real science fun!

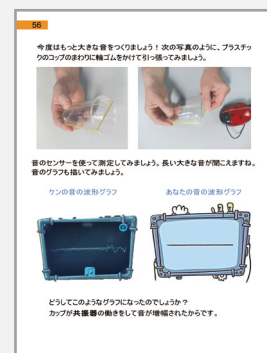
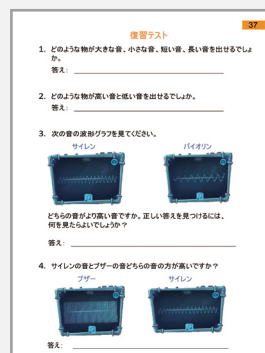
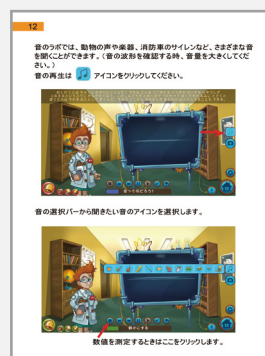
Conduct a range of science experiments using a multi-function sensor, 14 parts, software, and textbooks.



Plug the ladybug sensor into your PC and use it to detect light, sound, electricity, and temperature!

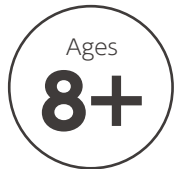


The young scientist Savanto talks kids through every experiment, using fun visuals to show the results on screen in a way that growing minds can easily grasp and inspiring them to experiment and learn more. The software is available in English, Japanese, and French.



Each textbook guides kids through experiments and uses review questions to test their knowledge of each subject.

GoTechUp: ArtecRobo



Learn online from anywhere,
no blocks or robots required.

GoTechUp: ArtecRobo is a virtual robotics platform which allows you to learn robotics in your web browser anywhere and at any time.

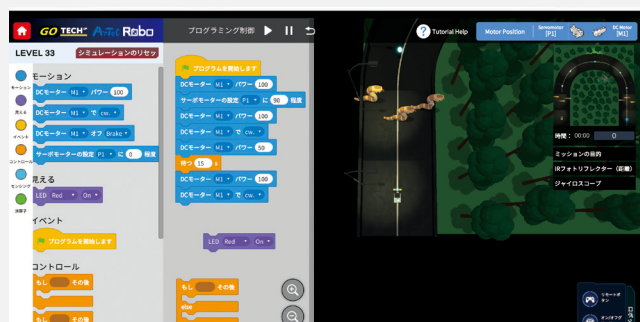
Gain the same essential programming skills
as you would with ArtecRobo hardware.



Learn the basics of thinking like a programmer using a wealth of content which takes you one step at a time.



Stay motivated as you learn by checking your performance in every level.



Program using a beginner-friendly interface perfect for users already familiar with ArtecRobo.



Multilingual support for English, Japanese, Chinese, and French.

Python Programming for Adults



Speechi

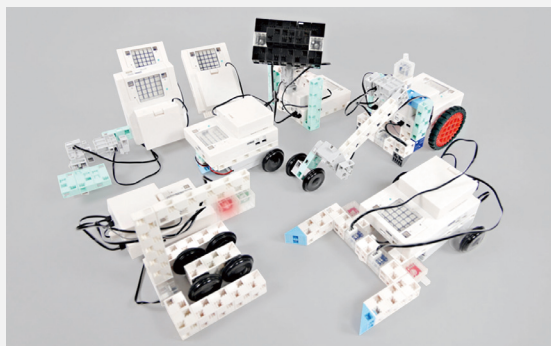


A beginner-level Python programming course for adults.

Take your first step in programming with no background knowledge required.

This one-year course uses ArtecRobo 2.0 to help you learn and deepen your understanding of modern tech concepts like cloud computing, big data, and deep learning.

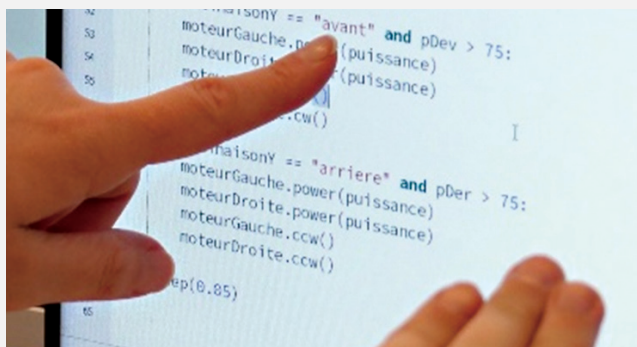
It's never too late to learn real robotics and programming.



Have fun learning real programming in Python as you use ArtecRobo 2.0 to connect to the Internet and work through multiple robotics projects.

- | | | | |
|---|--|--|---|
| 1. The Smart Parking Lot
Learn how to show the capacity of a parking lot.
Uses
Core Unit, LEDs, IR Photorelector | 2. A Cloud of Fireflies
Sync multiple Core Units in a network.
Uses
Core Unit (Wi-Fi, LED Display) | 3. Like a Sunflower
Make a robot which detects the Sun like a sunflower.
Uses
Light Sensors, Servomotors | 4. Cleaning with Robots
Build a robot which can clean up debris.
Uses
IR Photorelectors, LEDs, DC Motors |
| 5. Balancing Robots
Use accelerometers to create balance.
Uses
Core Unit (accelerometer), DC Motors | 6. Camera Stabilizers
Make a platform that can remain level.
Uses
Servomotors, Accelerometers | 7. Robotic Arms
Use an algorithm to make your robot move like a walrus.
Uses
Servomotors, IR Photorelectors, LEDs | 8. Gesture Recognition
Make a device which recognizes gestures.
Uses
Core Unit (Wi-Fi, LED Display), Servomotors, LEDs |
| 9. IoT Alarms
Make an Internet-enabled door alarm.
Uses
Core Unit (Wi-Fi, LED Display), Light Sensors, LEDs | 10. Driving with AI
Make a robot which learns as it drives.
Uses
Servomotors, IR Photorelectors, Ultrasonic Sensors | 11. Sorting with AI
Learn and use image recognition to sort blocks.
Uses
Servomotors, document cameras | |

Rather than just theory, these 11 practical projects teach you about the programs in the world around you as well as how they work.



Work with blocks and convert them into Python in the studio:bit Software as well as get experience with Mu Editor, a professional-level Python editor.



Python Programming for Adults includes not only a full range of student textbooks, but teacher's guides to help you manage your classroom.

Recognized the world around.

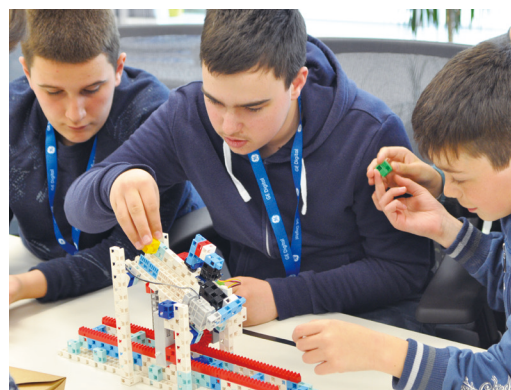
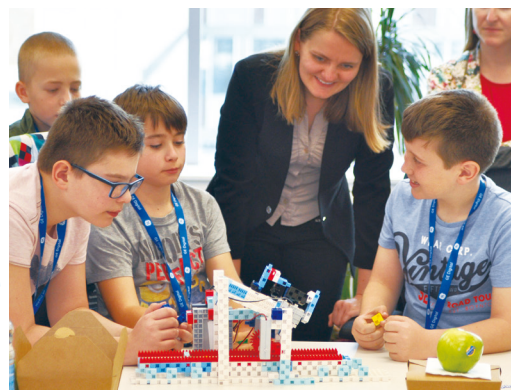
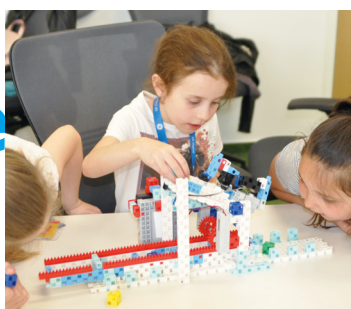
No matter where you go,
you'll find ArtecRobo.

Find ArtecRobo in the following countries:

South Korea, China, the Philippines, Australia, New Zealand, Hong Kong, Singapore, Mongolia, India, Canada, the USA, Brazil, Chile, Spain, Israel, Italy, France, the Netherlands, England, Russia, Germany, Nigeria, South Africa, and more

40 countries and counting

★ As of April 2021



Mongolia

Artec Blocks have been officially adopted in elementary schools nationwide.



South Korea

ArtecRobo kits were chosen as the official learning tool for software instruction in 900 schools.



Hungary

ArtecRobo is recommended as an official digital learning tool.



Singapore

ArtecRobo has been officially designated for use in elementary and junior high classrooms.

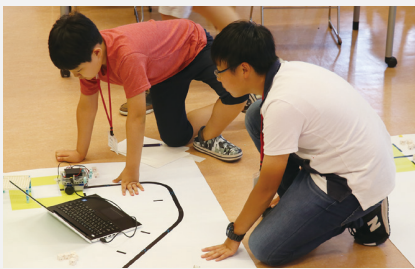
International robotics and STEAM competitions for kids.

It is our great privilege to help develop and promote cutting-edge international programs of exchange and cooperation in programming, robotics, and STEAM education. A few years back Artec started and is now involved in a number of international educational events which now include the following:

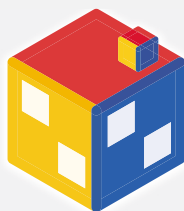


Asia STEAM Camp connects Artec with a multitude of schools in Japan and across Asia, directed and managed in cooperation with our partners and friends both locally and abroad.

The event brings children from diverse backgrounds and cultures together to work in teams and tackle STEAM-themed challenges.



**UNIVERSAL
ROBOTICS
CHALLENGE**



Directed by an independent committee, the Universal Robotics Challenge is a more traditional programmable robotics tournament. The objective of the URC is to inspire children's interest in the field of robotics technology as they acquire new problem-solving skills through teamwork.



Find out more at <https://urc21.org/en/>

★ Hosted by the Artec Co., Ltd.
UNIVERSAL ROBOTICS CHALLENGE Executive Committee