

makeblock

Codey Rocky Education Pack - 6 Robots



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The pack is an ideal solution to large-class lectures on robot programming.

One kit contains six sets of Codey Rocky, allowing up to 12 students to learn coding at the same time. Powerful features of Codey Rocky allow students to learn scratch, Python AI and IoT. A full set of student's guides, teacher's guides, and PPTs make it easier for teachers to prepare for and deliver lessons. What's more, the Gratnells storage boxes and charging accessories included in the kit can further facilitate teaching.

With the help of our kit, teachers can develop courses on programming, and organize robotics or programming competitions.

Suitable For



Target Users

- ✓ Age 6+
- ✓ Elementary and Junior high school



Buying Advice

- ✓ Suitable for large-class
- ✓ 7-8 kits for a 40-student class



Learning Content

- ✓ Scratch, Python
- ✓ AI, IoT
- ✓ Working principles of Sensors and robots

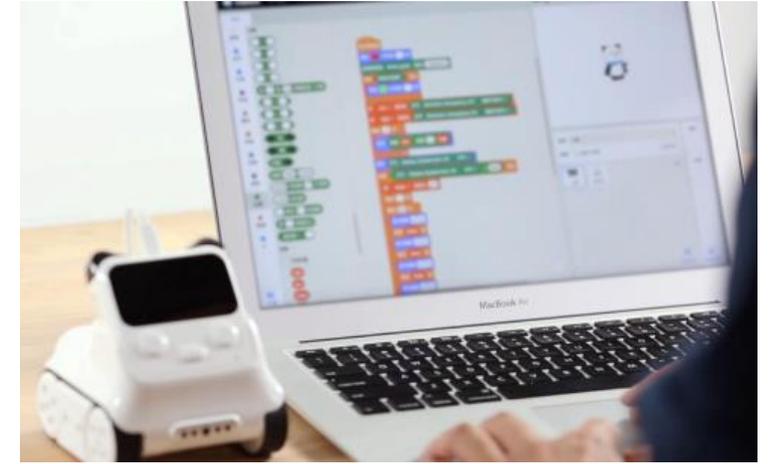
The kit can be used to:



Ideal associates for teachers that help with the IT, programming and maker education. Great assistants for robotic competitions and creative contests.



Programming learning partners for students: want to control a robot, design an interactive project or create a maker project? NO PROBLEM! Pair programming helps develop students' teamwork skills



Support block-based mBlock and Python
Expose students AI application and machine learning.

Selling Points

Two-in-One Design, Suitable for Various Scenarios



Codey

Equipped with various types of sensors and a programmable "brain", Codey can work independently. As it won't "run" wild, it's an ideal learning partner for programming beginners and **suitable teaching device for tutorials held in computer labs.**

+



Rocky

Rocky, Codey's agile body, has to work with Codey. Codey and Rocky make a pair of best playmates. Rocky with Codey can complete all sorts of missions such as avoiding obstacles, detecting road conditions, identifying colors and following lines. It's better to try these tasks in **a spacious maker lab.**

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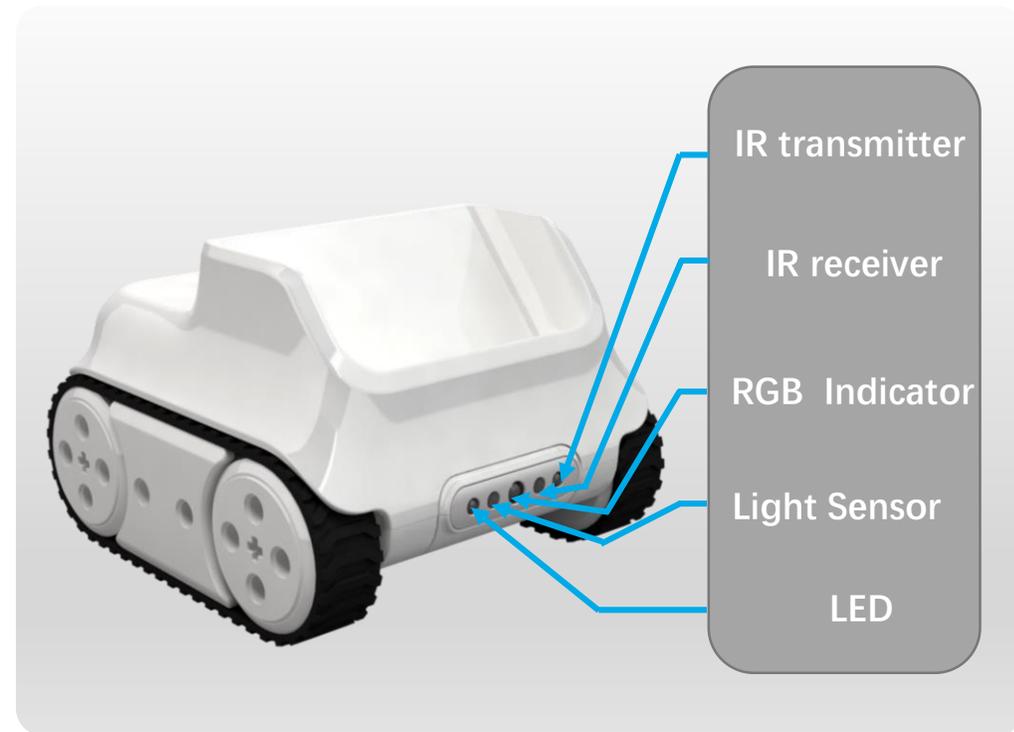
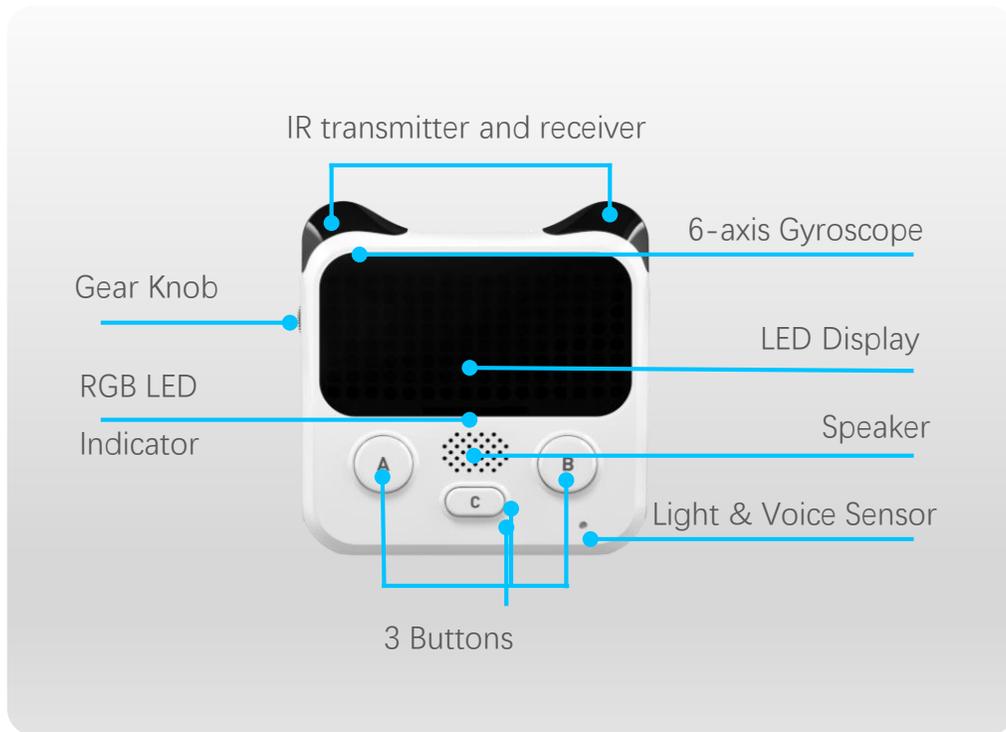


Codey Rocky

Codey Rocky is a capable teaching assistant in all teaching scenarios. It's easy to assemble, allowing students to focus on the more important thing: turning ideas into reality with code.

Make Programming Education Fun

Codey Rocky can sense vibration and changes in sound, light and color, which allows students to have first-hand experience of how sensors work. Instant interaction with Codey Rocky brings more fun and better experience to the programming learning process.



Switch to Python with One Click

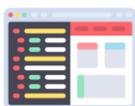
Support block-based and python programming · Meet the needs of kids at different grades · Python texts change in sync with coding blocks



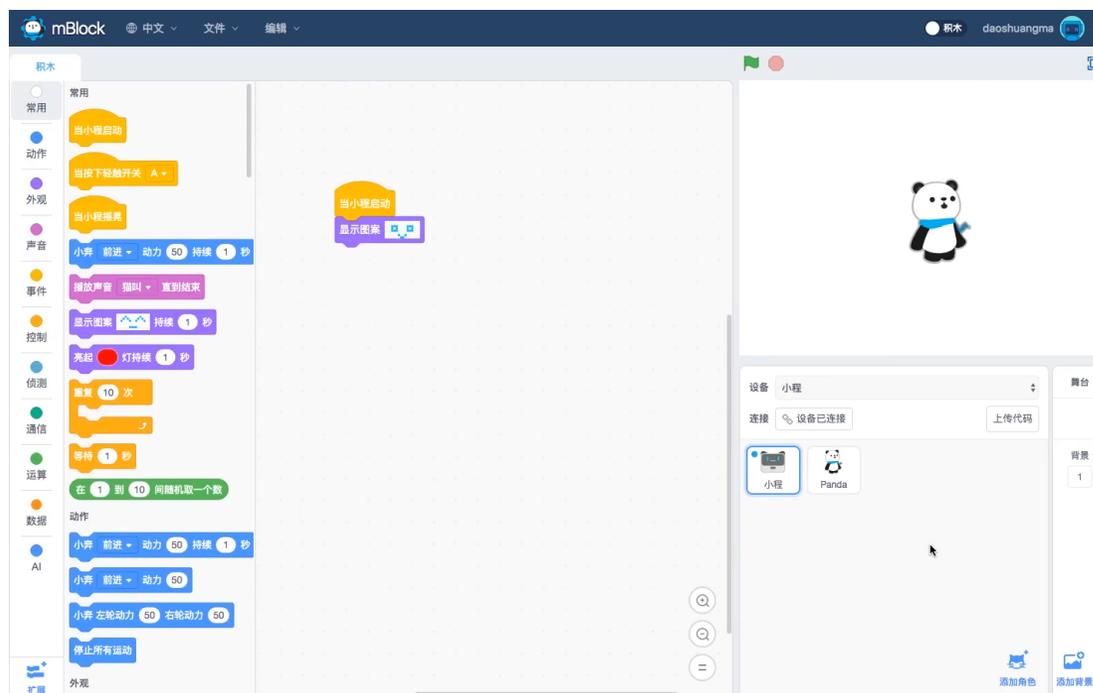
Switch to Python with One Click



Code Autofill



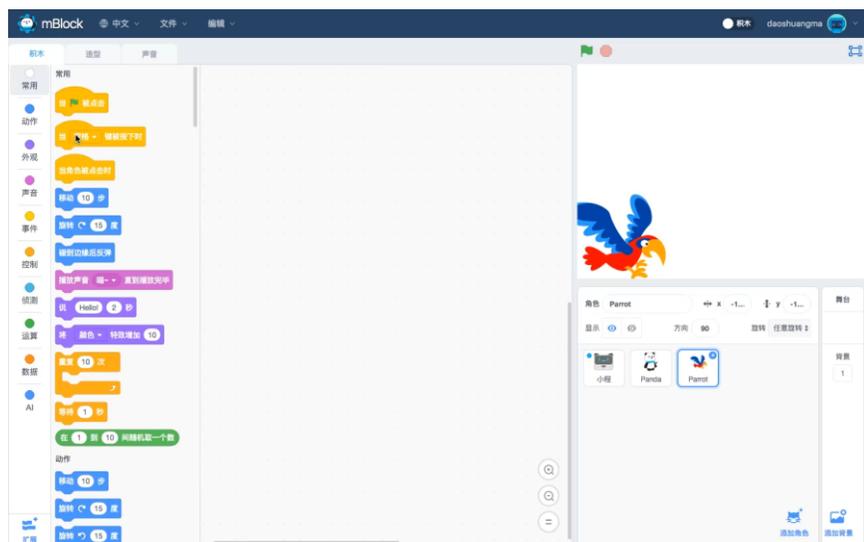
Python texts change in sync with coding blocks



[△ Click to Play Video](#)

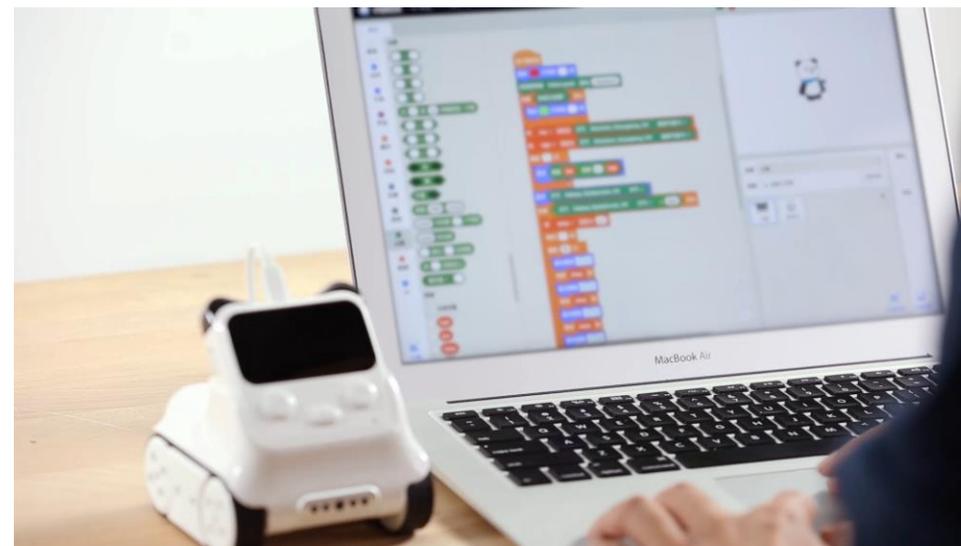
Easy to Learn and Apply AI and IoT

▽ Use the AI feature of mBlock 5 to realize age recognition



mBlock supports image, speech and word recognition and other AI features. Children can interact with robots through games and hands-on activities.

▽ Obtain real-time weather data via Wi-Fi and show the data on the LED display

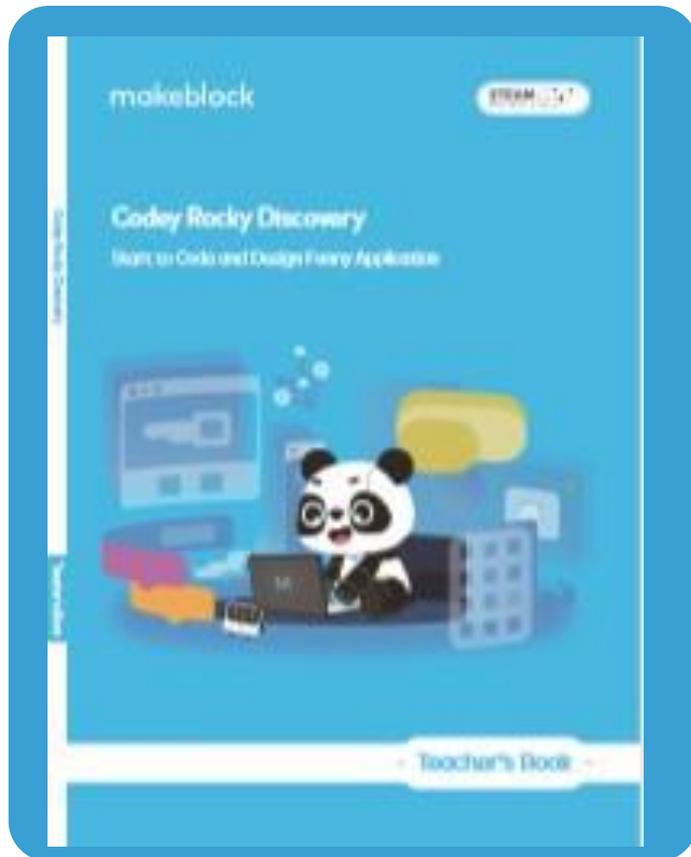


The built-in Wi-Fi module allows Codey Rocky to connect to the Internet so it can carry out weather data gathering and other applications of IoT.

Supporting Materials

A full set of student's guide (24 sessions) , teacher's guide and PPT. Don't worry even you launch a programming course for the first time.

Student's book



Tutorial PPTs and sample programs



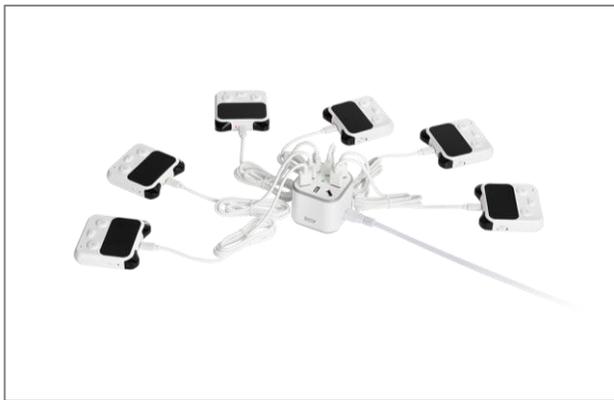
Course Evaluation Forms

The image shows two evaluation forms. The first is a 'Project Assessment' form with fields for 'Name: _____' and 'Age: _____', and a blue button labeled 'Answer questions and record your achievements'. The second is a 'Reflective Report' form with fields for 'Name: _____' and 'Age: _____', a blue button labeled 'Answer questions and record your achievements', and three text boxes for 'Describe the new knowledge you have learned in this course', 'Describe the favorite part and the least favorite part', and 'Write a "Conditional" in your life'.

Convenient for teaching

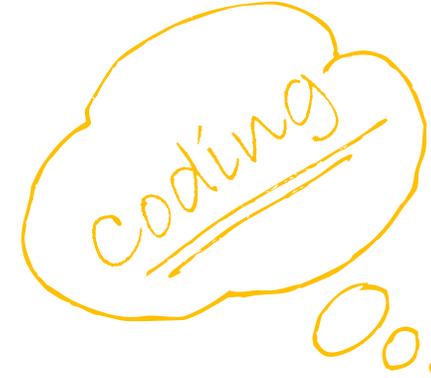
Store and Check

Use Gratnells storage boxes to facilitate checking, collecting and storing.



Charging accessories

8 devices can be charged at the same time and can be fully charged within a class break.



Course and Supports

Course Features

Combining Software and Hardware



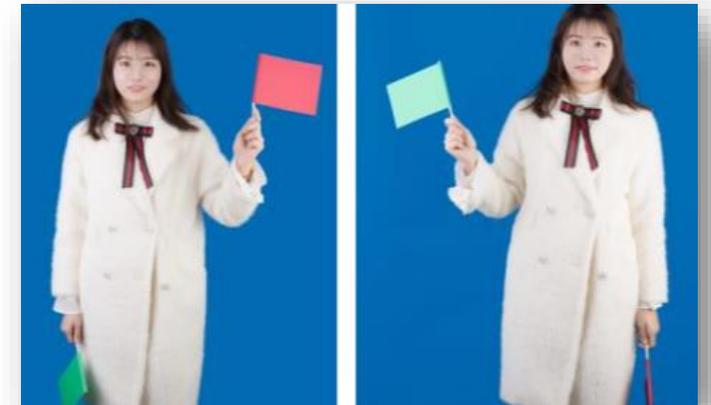
A Combination of software and hardware is adopted to stimulate children's confidence in creating and interest in programming.

Pair Programming



Pair programming is a software developing process where two programmers work together. One is responsible for running the program and the other observing how it works. It's proved that pair programming helps students learn from and cooperate with each other.

Unplugged Coding



Unplugged coding activities allow students to learn programming through games. Unplugged coding is a learning activity at which cards and color pens or other materials are used to introduce programming and computational thinking. Even without a computer, teachers can still teach the basics of computer science with the help of unplugged coding activities.

Course Features

Wrap-up

Conclude what has been learned

New concepts/Review

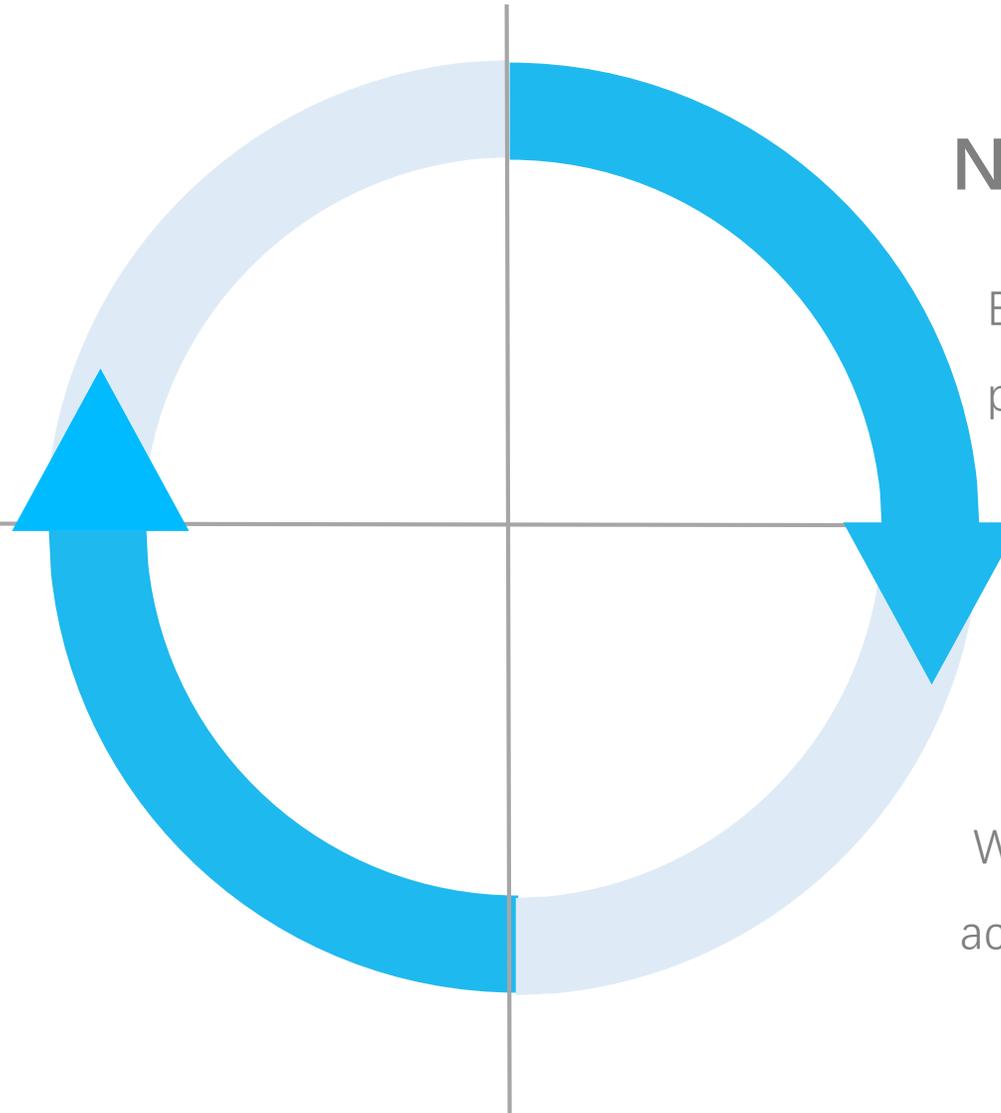
Explain new concepts and review prior knowledge

Tasks & Games

Adopt scaffolding strategies

Lead-in Games

Warm up with unplugged coding activities



Supports

**1**

Makeblock Education Website

Courses about mBlock and Codey Rocky are freely available on Makeblock Education website. You can also download the materials.

2

Video Lectures

Skilled teachers are invited to deliver video lectures, which provides a platform where people can exchange insights. The lectures can be used as basic coding courses for kids.

Appendix

Parts List · Courses & Tutorials · Specifications

Parts List

SKU	P1030046
Name	Codey Rocky Education Pack - 6 Robots



6 x Codey	6 x Rocky	6 x Lanyards	6 x Micro USB data cable_100cm
6 x Quick Start Guide_En	1 x Safety Guide_En	48 x Codey Rocky Colour Card	1 x 8-port USB charger
1 x Power Cord	1 x Gratnells Storage Box	1 x Pearl-cotton box liner	2 x Name Sticker
1 x Teacher's Guide (Pack of 6)_En			

Codey Rocky Discovery Course Outline

Unit	Lesson	Topic	Session	Learning Objectives
Unit 1 Event & Sequencing	L 1	The Secret of Codey Rocky	40 mins	Understand the concept and function of Programming Learn to use Codey Rocky and mBlock
	L 2	Press Buttons to Change Emotions	40 mins	Understand the concept of Event Design buttons for different facial expression with Event Blocks
	L 3	To Be an Animation Designer	40 mins	Understand the concept of Sequencing Make an animation with programming with Sequencing Blocks
	L 4	Identify the Bug	40 mins	Understand the concept of Bug and Debug Find out bugs and fix them
Unit 2 Loop	L 5	The Steamed Bread Can't Jump	40 mins	Understand the concept of Counting Loop Make a fun animation with Counting Loop Blocks
	L 6	The Jumping Steamed Bread	40 mins	Understand the concept of Infinite Loop Make a creative animation with Infinite Loop Blocks
Unit 3 Conditionals	L 7	The Racing Game I	40 mins	Understand the concept of Conditionals Use Conditional Blocks to help Codey Rocky recognize color and detect obstacles
	L 8	The Racing Game II	40 mins	Use multiple Conditional Blocks or a combination of nested Counting Loop, Conditional and Operators Block to accomplish missions
	L 9	Volume Bar	40 mins	Use nested Infinite Loop Blocks and Conditional Blocks to accomplish missions
Unit 4 Function	L 10	Good Morning! Functions	40 mins	Understand the concept of Function Make an original project by creating Function Blocks
	L 11	The Tiny Patroller I	40 mins	Design a game containing different missions for Codey Rocky Apply mathematic skills to completing missions
	L 12	The Tiny Patroller II	40 mins	Further study in Function Use complex Function programming and mathematic skills to accomplish complicated missions

Codey Rocky Discovery Course Outline

Unit	Lesson	Topic	Session	Learning Objectives
Unit 5 Variable	L 13	The Squirrel's Nuts Box	40 mins	Understand the concept of Variable Control Codey Rocky with Variable Blocks
	L 14	Mathematical Operations	40 mins	Further study in Variable Use Variable Blocks to carry out comparison operation
	L 15	The Bomb!	40 mins	Continue study in Variable Accomplish programming tasks by using Variable and Random
	L 16	Rock-Paper-Scissors	40 mins	Accomplish programming tasks by using Variable and Conditional Blocks
Unit 6 Game Design	L 17	Speedway	120 mins	Know how to design scenes and characters, set stage background and dynamic effects
	L 18	My First Game Design Experience	90 mins	Familiarize with game design procedures Design a simple game
	L 19	Game Rules I	90 mins	Learn about game mechanism Improve a game by introducing rules
	L 20	Game Rules II	90 mins	Develop skills of designing game mechanism by introducing moving obstacles
	L 21	Fast & Furious	90 mins	Further develop skills in designing game mechanism Understand the concept of Game Outcome and introduce a finish line to the racing game
Unit 7 Robotics course	L 22	Bend competition	90 mins	Consolidate the basic knowledge of the robot, design maps by yourself, and control Codey Rocky to follow maps.
	L 23	Object Avoidance	45 mins	Understand the application of autonomous driving technology, understand the infrared sensor and obstacle avoidance principle, and use the obstacle avoidance function to complete the task.
	L 24	Line Following	45 mins	Understand the application of line following, reflection intensity of different gradations and the principle of the patrol of the Codey Rocky. Then complete the patrol task.

Specification

Infrared receiver and transmitter

6-axis gyroscope

color and IR distance sensor



LED Display

Voice and light sensor

Product Name	Codey Rocky
Chip	ESP32
Transfer Method	Wi-Fi / Bluetooth / USB
Control Platform	MacOS/Windows/iOS/Android
Battery	950mAh Li Battery (charging time: 2hrs approx.)
charging time	2hrs approx
Coding languages	Scratch 3.0, Python