## makeblock

### Makeblock Codey Rocky Model:P1030024



#### What is codey rocky?

Codey Rocky is a coding robot for STEAM education. It provides an entertainment learning experience of programming for children of ages 6+.

The combination of easy-to-use robotics hardware with block-based programming software mBlock 5, guarantees that beginners can get started coding within minutes. With just one click you can turn your visual code into Python code and continue learning an advanced and practical language.

mBlock 5 supports AI-functionality and Internet of Things-functionality, giving children access to AI and IoT since young and thus equipping them with stronger competence in an age of intelligence.

Codey is the controller with different sensors and a programmable main control. It can be used alone mainly for teaching tasks. Moreover, it can work with the chassis Rocky to perform more tasks.

Rocky is the chassis and can work only by matching with Codey. With Rocky, it can avoid obstacles, recognize colors, follow lines and etc.

### Write your first line of code:

Codey Rocky combines hardware with software, allowing children to learn about programming while they play and create. Using mBlock, a software which supports both blocked-based and Pyhton programming, Codey Rocky takes children by their hands and leads them into the world of avant garde technology with its in-built AI and IoT functionalities, giving them a competitive edge in the AI era.

### 2 in 1 - an Innovative Design in Structure:

#### **Brainy Codey**

Integrated with over 10 programmable electronic modules, Codey Rocky has many more features than it meets the eye.

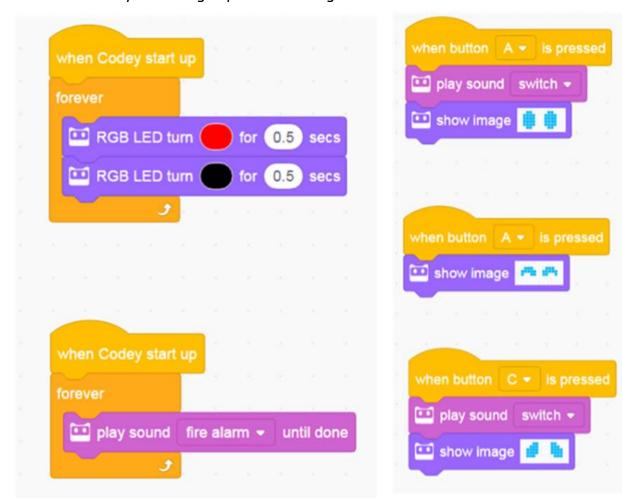
#### Agile Rocky

Not only will Codey Rocky swirl and follow lines, it will also go around obstacles, making creation so much more fun.

### <u>Software Learning + Hardware Creation - the Fun Way to Learn about</u> Programming:

https://youtu.be/oFi5MqFNakA https://youtu.be/qs3ckG7S9hE https://youtu.be/OIpHdb87rWA https://youtu.be/t18QT2u8Zvo

Harnessing the power of mBlock software, Codey Rocky allows children to create dot matrix animations, design games and realize AI and IoT applications. By programming each and every move made by the robot, not only will children be able to understand each command intuitively, they will also find it a very rewarding experience through hardware creation.



### Programming as simple as playing blocks:

Hot on the heels of Scratch3.0 \*, mBlock features many powerful functions and promises truckload of experience; programming is as simple as assembling building blocks - anyone who reads can learn to programme. We also structure the learning process in a series of games of different levels, making programming full of fun while children progress through these games.

\* Scratch: a programming language developed by the Massachusetts Institute of Technology (MIT) for children, is currently the most widely used visual programming language in the world.

#### Switch to Python with one click for advanced programming learning:

Python is a programming language widely used at the forefront of technological advances such as AI and data analysis. Using mBlock software, children write programs directly in Python, and can turn their written block-based programming program into Python code so as to continue learning an advanced programming language.

# Over 10 electronic modules to support your children in turning their imagination into reality:

Equipped with over 10 electronic modules, including a sound sensor, a light sensor and an LED dot matrix display, Codey Rocky is a treasure trove of fun that plays music, follows light, mimics facial expressions and many more with easy coding, empowering children with the skills to turn their imagination into reality and experience the delight out of their achievement.



- IR Transmitter/Receiver: makes communication with multiple robots possible and allows infrared remote control of electrical appliances.
- Gear Knob: adjusts volume and variables

- LED Display: shows various patterns and RGB lighting effects.
- 6-axis Gyroscope: detects tilts, shakes and turn angles, useful in designing somatosensory tricks which require tilts and shakes.
- RGB LED Indicator: can be programmed freely to set the color of the RGB indicator, making Codey Rocky even more fun and expressive.
- Voice sensor: detects ambient and motion sound levels.
- Light sensor: detects the intensity of ambient light.
- Buttons: are all programmable for customization.
- Color Infrared Sensor: detects colors, avoids obstacles, calculate distance and enables cruising.

# <u>AI \* ready with cutting-edge technologies - your key to unlock the age of AI</u> ahead of others:

mBlock software supports AI? functionalities including image and voice recognition as well as deep learning. In conjunction with Codey Rocky, mBlock allows children to come into grips with cutting-edge technologies for the very first time. Through games and application, they will be able to learn about the logical thinking and principles behind AI as well as how to interact with machines, which are all essential as they prepare for the arrival of the age of AI.

\* AI: short for artificial intelligence, refers to a new science of technology which is applied to all walks of life and is considered to be an important technological development which affects the future of the world.

https://youtu.be/20zEfCd-7CA

Face recognition.

https://youtu.be/yHwQsR2N8-U

Imitate facial expressions.

#### Home creation made simple even for a child with IoT\* technology:



With built-in Wi-Fi, Codey Rocky quickly connects to the Cloud, realising its IoT\* functionality. Through coding, Codey Rocky allows children to obtain data on the weather and make forecasts; and in conjunction with IFTTT\*\*, they can even automate smart tasks such as sending SMS messages. Children can also transform Codey Rocky into a wearable device, allowing them to make further strides in science projects and realising even more IoT applications.



- \* IoT stands for the Internet of Things, an interconnection via the Internet of all devices, so as to enable the digitisation and management of all kinds of smart devices and facilities.
- \*\* IFTTT, short for "If This Then That", is a web-based service which connects different websites or applications so as to complete certain tasks. For example, when IFTTT is deployed, an operation you perform on website A will lead to another operation automatically performed on website B.

# <u>Packed with comprehensive learning materials, giving children the professional</u> guidance they need:



Codey Rocky comes with learning materials, example programs and tutorials, supporting children in their learning of programming each and every step of the way: running on the mBlock software, which is compatible with Scratch projects, Codey Rocky benefits from the wealth of reference materials and example programs available from Scratch; its tutorials on creating projects are constantly updated, covering entry, intermediate to advanced levels, while inspiring children with imagination and creativity; and free PBL\*\* programming lessons based on the CSTA\* course design standards of United States are available to our users, giving children professional and systematic guidance on programming.



- \* CSTA, short for the Computer Science Teachers Association, is dedicated to empowering teachers around the world to further the education of computer science and promoting the development of computer science education.
- \*\* PBL, short for Problem-Based Learning, is a problem-oriented teaching approach, which aims at encouraging students to learn to solve problems in the real world through pro-active learning and logical thinking.

Set your imagination free and unshackle your creativity with Codey Rocky!

https://youtu.be/09bkBT3QMcI

Play with Codey's IR function

https://youtu.be/diYd65bBL3Y

Team up with Lego and come up with new games!

https://youtu.be/YE-F871yc2s

**IFTTT** support

https://youtu.be/-TmgzucH31k

Weather forecast made as easy as pie with the IoT functionality

#### **Specifications:**

Product Codey	Rocky
Product Properties	Smart Robot for Beginner Coding and AI Learning
Age	6+
Assembly Needed?	No
Main Control Board/ Chip	ESP32 Chip
Programmable Modules	LED Display, Speaker, RGB LED Indicator, Buttons, Gear Knob,
	Voice Sensor, Light Sensor, 6-axis Gyroscope and Accelerometer,
	IR Transmitter, IR Receiver, Color Infrared Sensor, DC Geared
	Motor
Intelligent Functionalities	Follow lines, intelligent avoidance of obstacles, chasing light,
	automatic anti-drop adjustment, colour recognition, somatosensory
	remote control, infrared communication
AI Ready?	Yes
IoT Ready?	Yes
Connectivity	Bluetooth / Wi-Fi / USB
Compatibility	Compatible with Makeblock Neuron and Lego bricks
Add-on Pack	No
Power Supply	950mAh lithium battery
Dimensions	102×95.4×103mm (L×W×H)
Weight	295g

Made in China