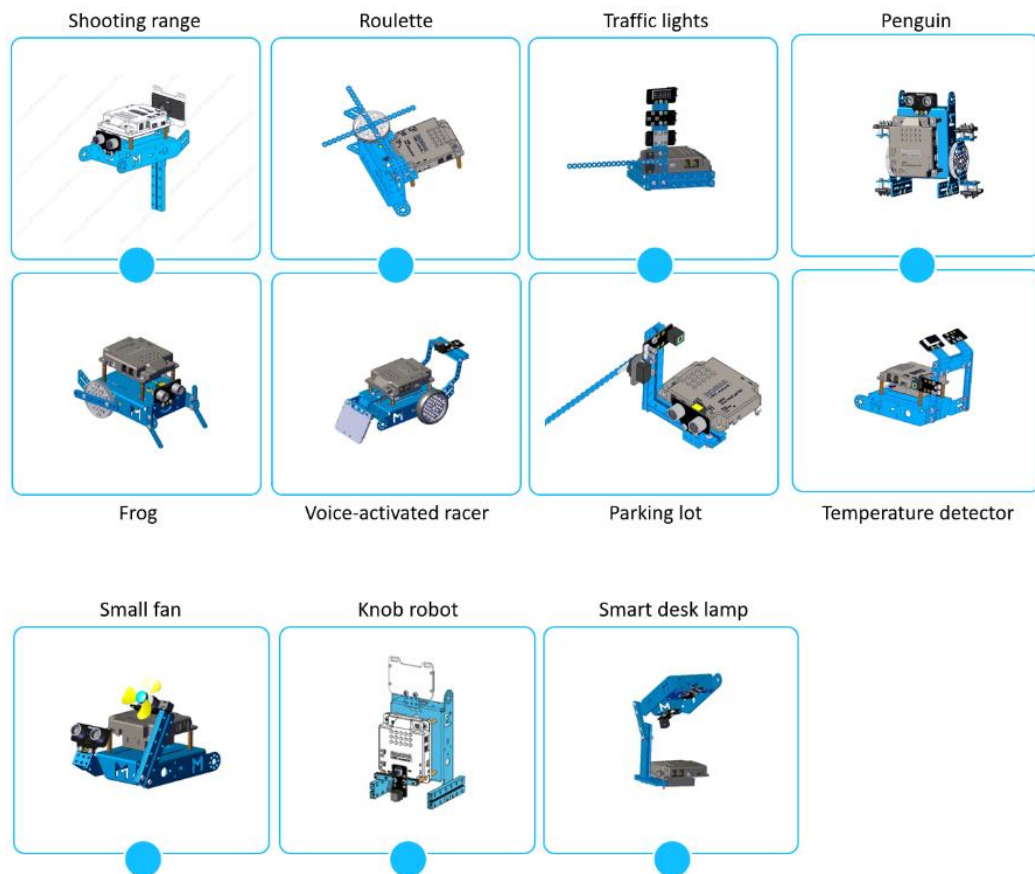


STEAM Education Kit - Robot Science



The STEAM Education Kit - Robot Science is designed by Makeblock and intended for STEAM Education. It consists of various electronic modules, mechanical parts and a series of teaching resources including teaching guides, building instructions and PPT. With the STEAM Education Kit - Robot Science, children will develop their skills and abilities while enjoying the fun of creation.

Case :



Parts :



Packing List	Qty.
mBot	1
RGB LED	2
Sound Sensor	1
LED Matrix	1
RJ25 Adapter	1
Touch Sensor	1
Potentiometer	1
130 Motor Pack	1
Segment Display	1
9g Servo Package	1
Temperature Sensor	1
RJ25 Connecting Line-20cm	4
RJ25 Connecting Line-35cm	2
Mechanic Parts	238
Packing List	Qty.

Curriculum of Robot Science

The Education Kit can teach for 16 lessons in 4 themes :

- I Colorful World:1.Dance Party 2.Emergency Rescue 3.Penguin Spy 4.Fabulous Frog
- II Tech Life:1.Autopilot Technology 2.Energy-saving Life 3.Measurement Engineer 4.Clever Lamp
- III Family Games:1.Electronic Pet 2.Lucky Wheel 3.Volume Racing 4.Guess the Number Game
- IV Smart Applications:1.Temperature Laboratory 2.Smart Cooling Machine 3.Smart Barrier Gate 4.Crosswalk Safety System

Serial No.	Topics	Session	Teaching Objectives
Lesson 1	Dance party	2 classes/90 min	Students get an overall picture of the basic operations of mBlock graphic programming software and recognize the main components of mBot.
Lesson 2	Emergency rescue	2 classes/90 min	Students get a preliminary understanding of the application principle of the buzzer electronic module, imitating a real-life ambulance, and how to modify and accomplish the programming task independently.
Lesson 3	Penguin Spy	2 classes/90 min	Students are encouraged to delve into preserving nature and the earth by exploring the survival conditions of penguins, simulating penguins and making robot penguins.
Lesson 4	Fabulous Frog	2 classes/90 min	Students learn about the frog' s living environment and growth process, and make robot frogs, to complete the programming tasks.

Lesson 5	Autopilot Technology	2 classes/90 min	Students get a basic understanding of the concept of autopilot, recognizing ultrasonic sensors, and the branch structure in programming.
Lesson 6	Energy-saving Life	2 classes/90 min	By understanding the production process of a thermal power generator, students become aware of the importance of energy-efficient living and how to use ultrasonic sensors to accomplish programming tasks.
Lesson 7	Measurement Engineer	2 classes/90 min	By actually measuring, students further their understanding of the tools' role in people's daily work and practice their teamwork ability.
Lesson 8	Clever Lamp	2 classes/90 min	Students gain an understanding of the concept of intelligent life, recognizing the three primary colors of light, and learning to use voice sensors to make small voice-activated desk lamps.
Lesson 9	Electronic Pet	2 classes/90 min	Students grasp the definition of pets to separate pets from non-pets, and learn about the LED lattice screen and its applications, and then create artworks.
Lesson 10	Lucky Wheel	2 classes/90 min	Students learn the concept of random numbers, how to design and create works independently, designing games, and begin to realize that learning programming is also very interesting.
Lesson 11	Volume Racing	2 classes/90 min	Students discover the three major motions in the world, explore the secrets of voice grading, and make racers according to volume characteristics in order to compete in sprint racing.
Lesson 12	Guess the Number Game	2 classes/90 min	Students learn game concepts, the characteristics and functions of a potentiometer as well as programming variables, and then put that knowledge to use by creating a game.
Lesson 13	Temperature laboratory	2 classes/90 min	Students learn about temperature, to recognize common thermometers and temperature sensors and to make temperature gauges.
Lesson 14	Smart Cooling Machine	2 classes/90 min	Students learn about Chinese tea culture, the boiling point of water and the melting point of ice, and utilize a variety of programming software.
Lesson 15	Smart Barrier Gate	2 classes/90 min	Students learn to recognize common barriers and the steering gear, how to install and debug it, and the corresponding control program.
Lesson 16	Crosswalk Safety System	2 classes/90 min	Intended to educate students about the importance of traffic safety and urge them to obey traffic rules by simulating traffic lights for case production and programming tasks.