WeeeBot 3-in-1 STEM Robot Kit

WeeeMake Co., Ltd.

What is WeeeBot

- WeeeBot is a **3-in-1** STEM robot kit that consist of powerful mainboard ELF, anodized aluminum mechanics, and smart modular electronics system.
- 3 modes to assemble: WeeeBot Coding Car, Smart Lamp, Distance measuring robot.

- **10 controllable electronics**

- **Endless way to expand**

- **3 ways to control: IR remote, Bluetooth via phone/tablet, Windows/Mac PC**

- **9 mode to play: assemble, race, auto drive, line-following, draw, light control, wheelie, sprint, code.**

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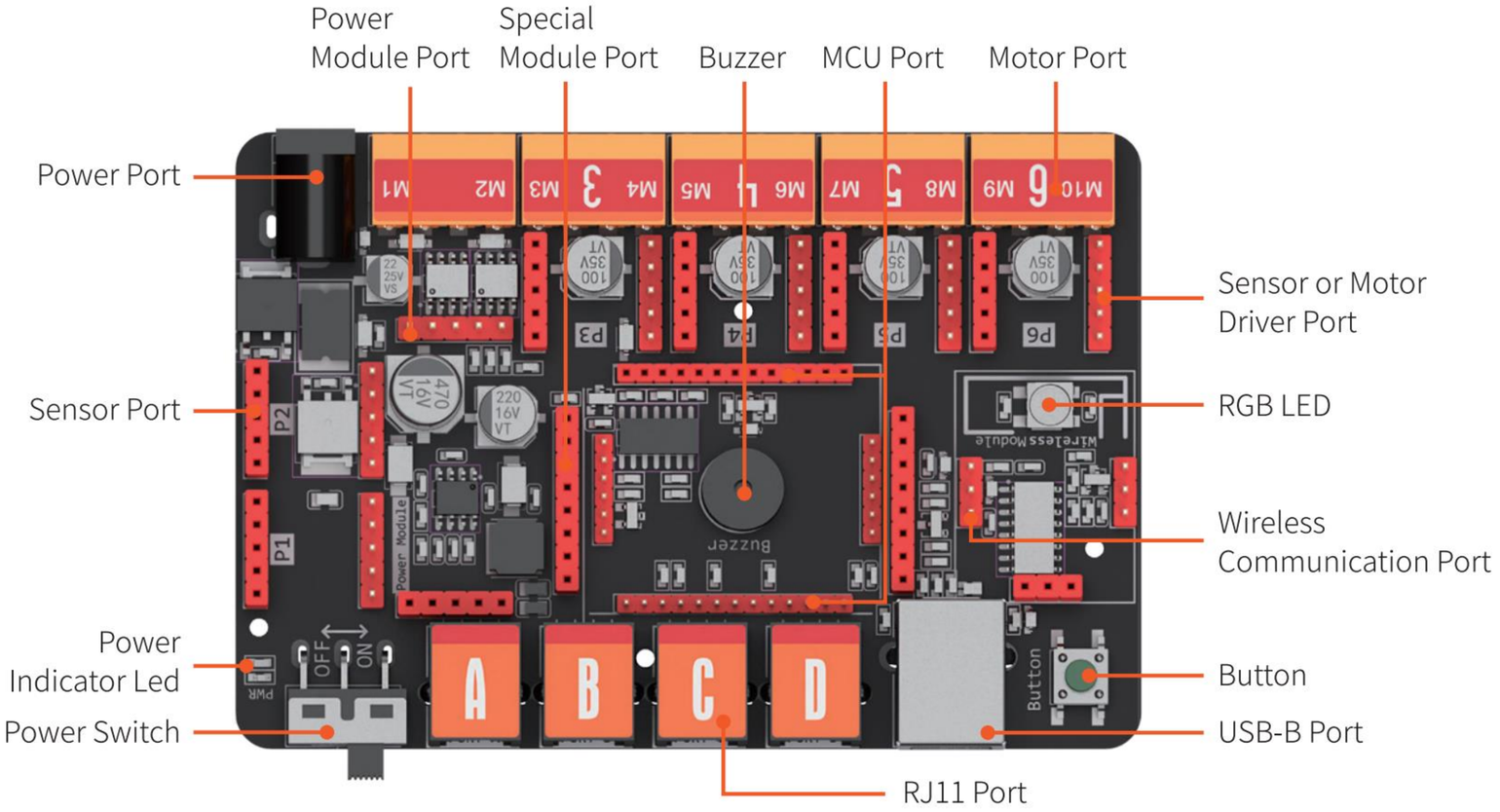
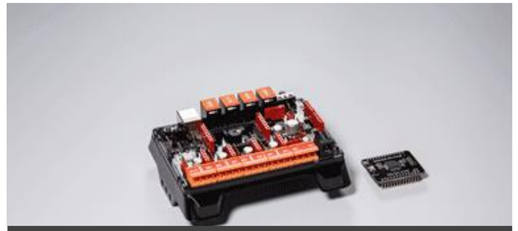
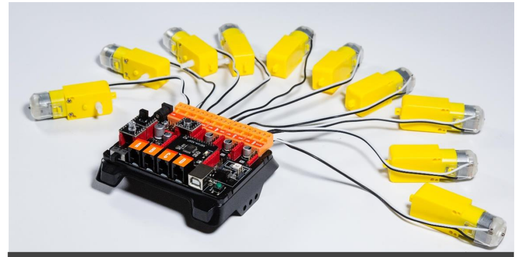
Powerful Mainboard ELF





Replaceable microchip

Randomly RJ11 and microchip plug in system microchip



Support 10 external sensor & 10 motors at the same time

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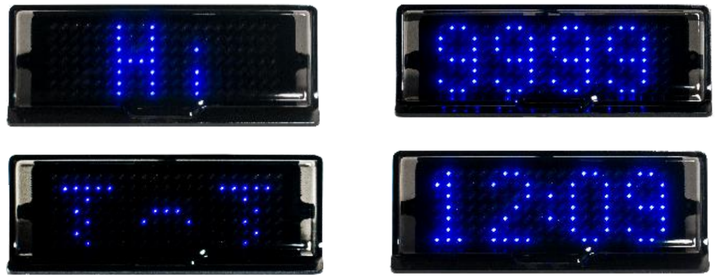
10 Programmable Electronics

- **6** external sensors and modules

7*21 RGB LED Matrix



RGB Ultrasonic Sensor

Line-following Sensor

Light Sensor

IR Sensor

Sound Sensor

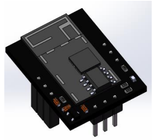
- **3** on-board sensors and modules

Button: external input

Buzzer: Create sounds

RGB LED: Display all color

- **2** in 1 communication module



Use Bluetooth connect smart device.

Plug dongle on computer, establish one to one 2.4G wireless connection.

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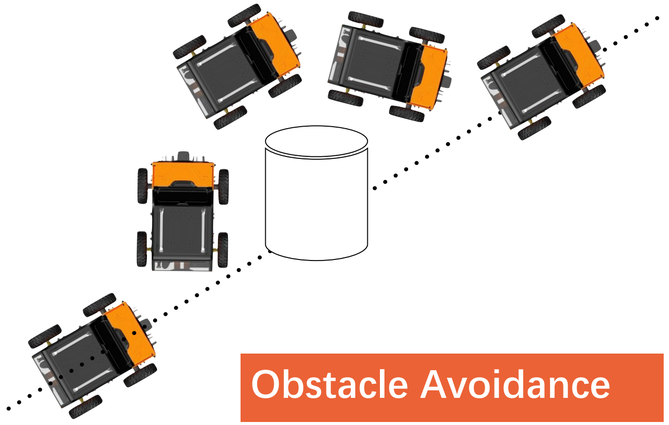
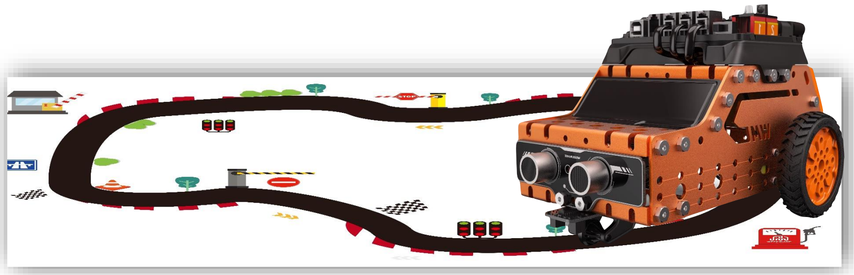
How to Play with WeeeBot?

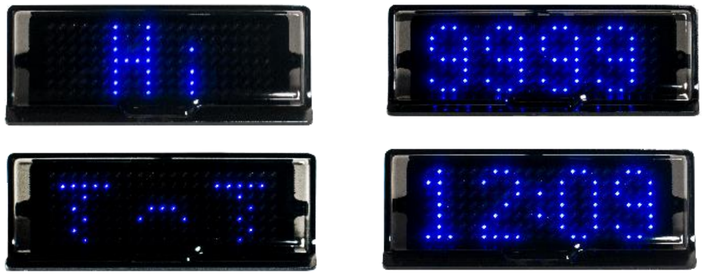


Obstacle Avoidance

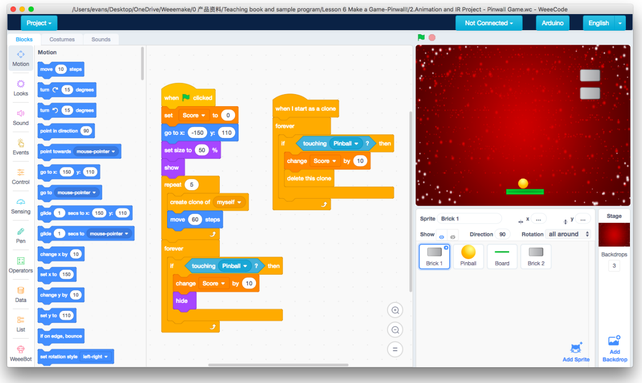


Line-following

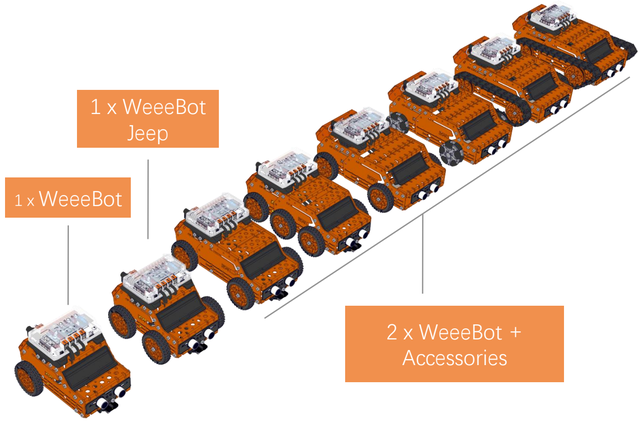
Manual Mode



Draw



Coding



Extension

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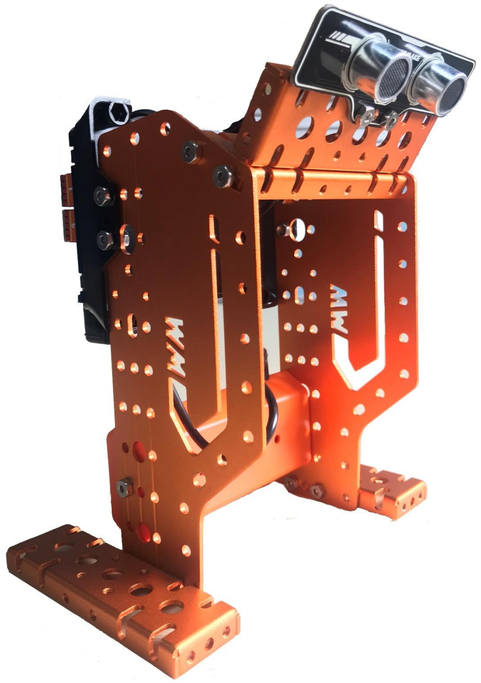
WeeeBot 3-in-1 DIY Robot



Smart Lamp Robot

Coding Robot Car

Distance Measuring Robot

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APP - WeeeMake

GET IT ON Google Play

Download on the App Store

6 Control Mode

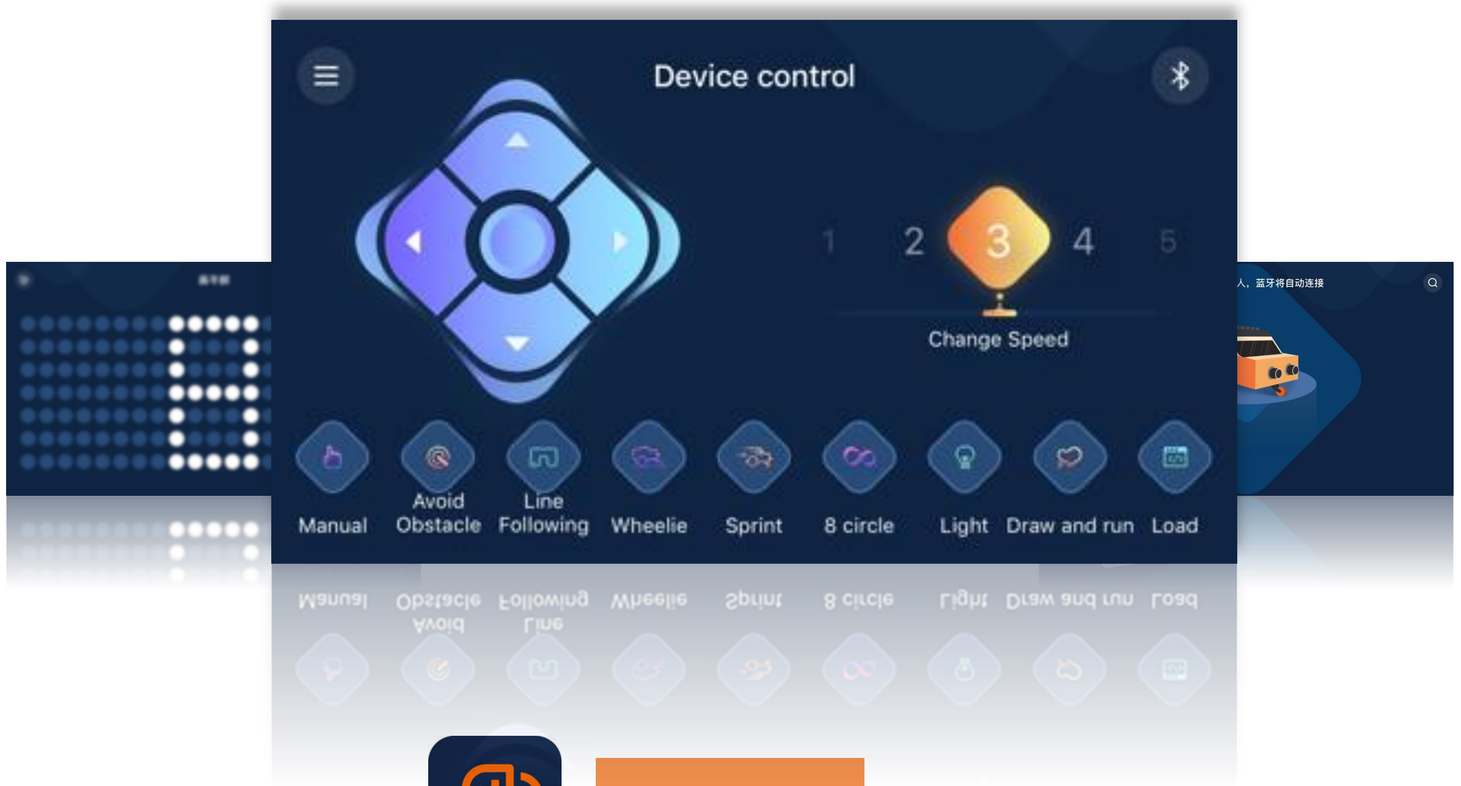
"Manual, Avoid Obstacle, Line-following, Wheelie, Sprint, 8 Circle" Control your robot with your phone, be a commander!

RGB LED Light

Click and switch the RGB LED light in 256 colors.

Draw

Draw on APP and see the numbers, letters, words, emoji....on LED matrix panel, create!



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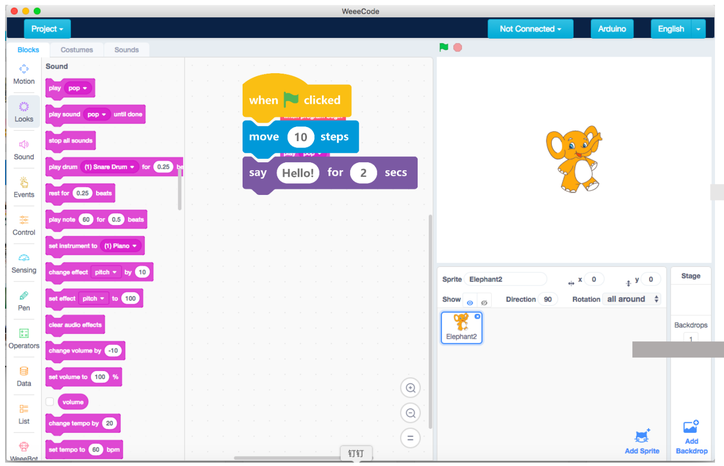
Easy to Code Scratch 3.0 and Arduino



Upgrade

macOS High Sierra

Windows 10 S

WeeeCode (Scratch 3.0)

Arduino IDE

Snake

Code and play Snack on WeeeBot Mini LED Matrix panel. Learn code and play game!

Robot Piano

"do, re, mi, fa, so, la, si"
Drag and drop, make your robot play beautiful tone with buzzer, create your melody.

Catch and Run

Code the light sensor, make your WeeeBot Mini run when you try to catch him. Catch and run!

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Learn with WeeeBot

- **Fast**

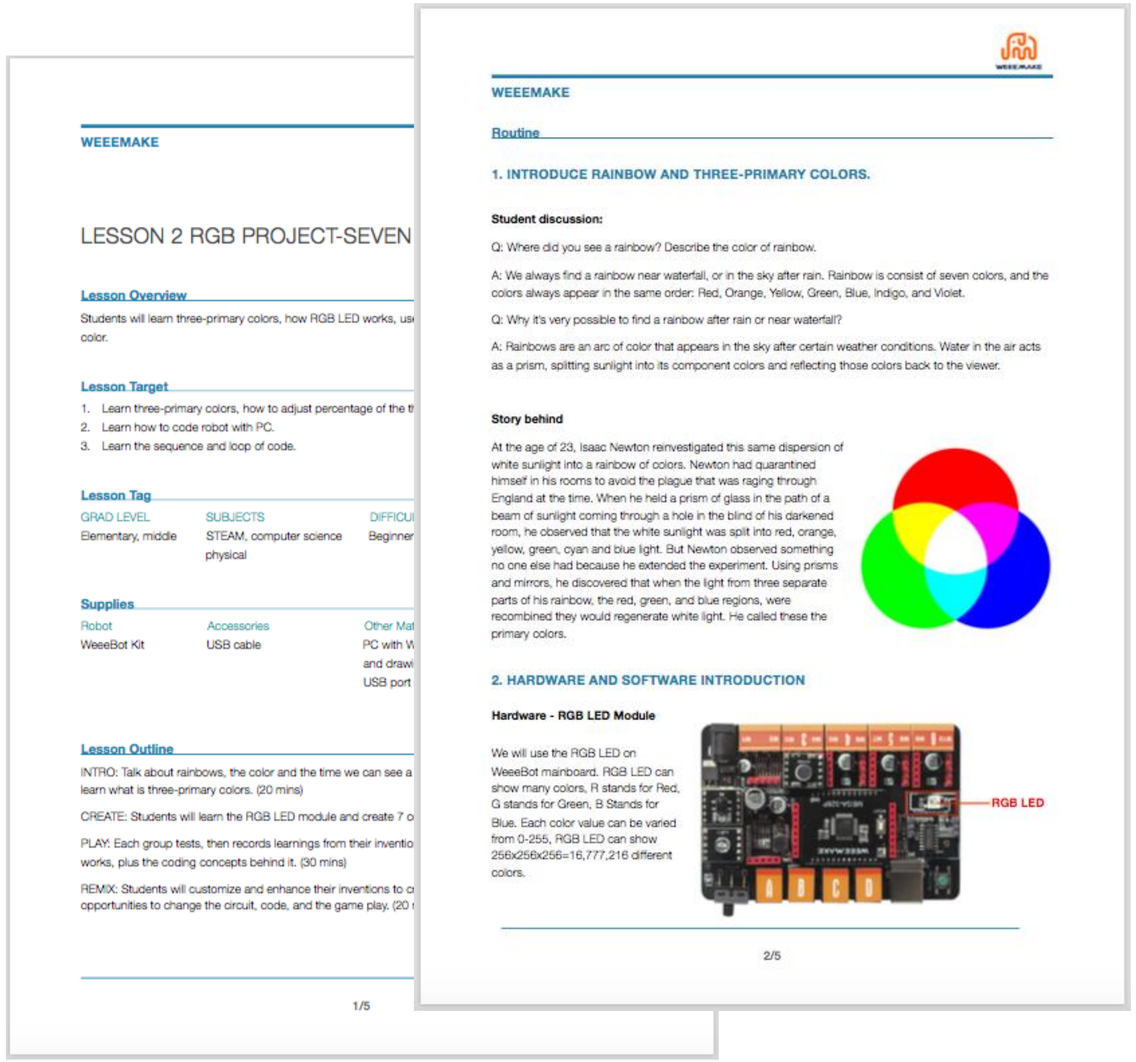
Improved motor, TWICE faster than other line-following robot, born for competition.

- **Easy to play**

Graphical assembly guide and APP control, explore 9 play modes at finger tip.

- **Easy to learn**

Graphical programming software and 16 lessons tutorial, enter logic world.



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LESSON 2 RGB PROJECT-SEVEN

Lesson Overview

Students will learn three-primary colors, how RGB LED works, us
color.

Lesson Target

1. Learn three-primary colors, how to adjust percentage of the t
2. Learn how to code robot with PC.
3. Learn the sequence and loop of code.

Lesson Tag

GRAD LEVEL	SUBJECTS	DIFFICU
Elementary, middle	STEAM, computer science physical	Beginner

Supplies

Robot	Accessories	Other Mat
WeeeBot Kit	USB cable	PC with W and drawi USB port

Lesson Outline

INTRO: Talk about rainbows, the color and the time we can see a
learn what is three-primary colors. (20 mins)

CREATE: Students will learn the RGB LED module and create 7 c

PLAY: Each group tests, then records learnings from their inventio
works, plus the coding concepts behind it. (30 mins)

REMIX: Students will customize and enhance their inventions to c
opportunities to change the circuit, code, and the game play. (20

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Routine

1. INTRODUCE RAINBOW AND THREE-PRIMARY COLORS.

Student discussion:

Q: Where did you see a rainbow? Describe the color of rainbow.

A: We always find a rainbow near waterfall, or in the sky after rain. Rainbow is consist of seven colors, and the colors always appear in the same order: Red, Orange, Yellow, Green, Blue, Indigo, and Violet.

Q: Why it's very possible to find a rainbow after rain or near waterfall?

A: Rainbows are an arc of color that appears in the sky after certain weather conditions. Water in the air acts as a prism, splitting sunlight into its component colors and reflecting those colors back to the viewer.

Story behind

At the age of 23, Isaac Newton reinvestigated this same dispersion of white sunlight into a rainbow of colors. Newton had quarantined himself in his rooms to avoid the plague that was raging through England at the time. When he held a prism of glass in the path of a beam of sunlight coming through a hole in the blind of his darkened room, he observed that the white sunlight was split into red, orange, yellow, green, cyan and blue light. But Newton observed something no one else had because he extended the experiment. Using prisms and mirrors, he discovered that when the light from three separate parts of his rainbow, the red, green, and blue regions, were recombined they would regenerate white light. He called these the primary colors.

2. HARDWARE AND SOFTWARE INTRODUCTION

Hardware - RGB LED Module

We will use the RGB LED on WeeeBot mainboard. RGB LED can show many colors, R stands for Red, G stands for Green, B Stands for Blue. Each color value can be varied from 0-255, RGB LED can show 256x256x256=16,777,216 different colors.

RGB LED

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Specifications

Product Name:	**WeeeBot STEM Education Robot Kit**		
Main Controller:	ELF	**Users**	8+
Microchip:	ATmega328P	**Guidance**	Manual and 10 lessons
External Sensor and Electronic Module:	RGB Ultrasonic Sensor	**Onboard Sensor and Electronic Module:**	Buzzer
	Light Sensor		Button
	Sound Sensor		RGB LED
	IR transmitter and receiver		5*14 LED Matrix
	Buzzer	**Motors:**	TT Motor x 2
	7*21 LED Matrix Panel	**Operating Voltage:**	6V - 10V
	Line-following Sensor	**Communication:**	Micro USB, Bluetooth 4.1, IR
Extension Port:	RJ11 port x 4; DC motor port x 10; Pin port x6	**Giveaway:**	18650 battery x2 Black tape

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Exhibitions

We look for partners worldwide, thank you!

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