

# Using Zenbo series product with Scratch

## How to use Zenbo series product with Scratch

Scratch is a world-renowned programming platform developed by MIT. ASUS creates extension blocks for Zenbo series products in Scratch. As long as you enter the IP of Zenbo series products in the extension blocks, you can control robots. When using extension blocks, the original functions of Scratch will not be affected, and other devices such as BBC Micro:bit or LEGO Mindstorm EV3 can also be connected.

## Zenbo series product

At present, the Zenbo series products that Scratch can control include the following items. Zenbo robots and Zenbo junior robots need to use different blocks to be controlled.

- Zenbo
- Zenbo Junior
- Zenbo Junior II

This document is established in March, 2021.

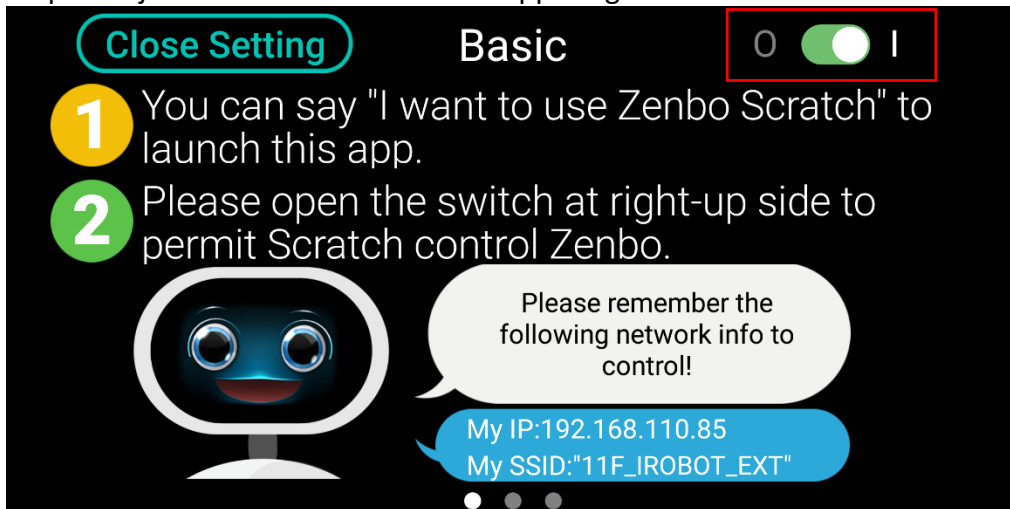
1. <a href="#">Start Guide</a>	3
2. <a href="#">System Requirements for Extension Block of Zenbo series products.</a>	5
3. <a href="#">Understanding the User Interface</a>	6
<b>3.1 Toolbar</b>	<b>6</b>
3.1.1 Language	6
3.1.2 Project	6
3.1.3 Project name	6
<b>3.2 Blocks Menu</b>	<b>7</b>
3.2.1 Block Category	7
3.2.2 Block List	8
<b>3.3 Editing Area</b>	<b>9</b>
3.3.1 Combining Blocks	9
3.3.2 Deleting Blocks	9
3.3.3 Editing Block Controls	9
4. <a href="#">Basic Block Functions</a>	10
<b>4.1 How to use block</b>	<b>10</b>
<b>4.2 Zenbo Robot</b>	<b>10</b>
4.2.1 Zenbo General Version	10
4.2.2 Zenbo Advanced Version	10
<b>4.3 Zenbo Junior</b>	<b>11</b>
4.3.1 Zenbo junior General Version	11
4.3.2 Zenbo Junior Advanced Version	11

# 1. Start Guide

Step 1: Open the App "Zenbo Scratch" in Zenbo Junior. You can see the operating instructions, the IP and status switches of this Zenbo Junior.

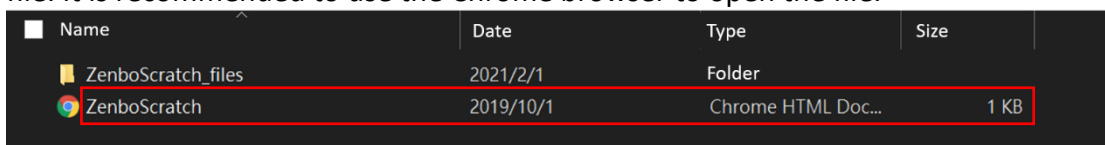


Step 2: Adjust the status switch in the upper right corner to "I".



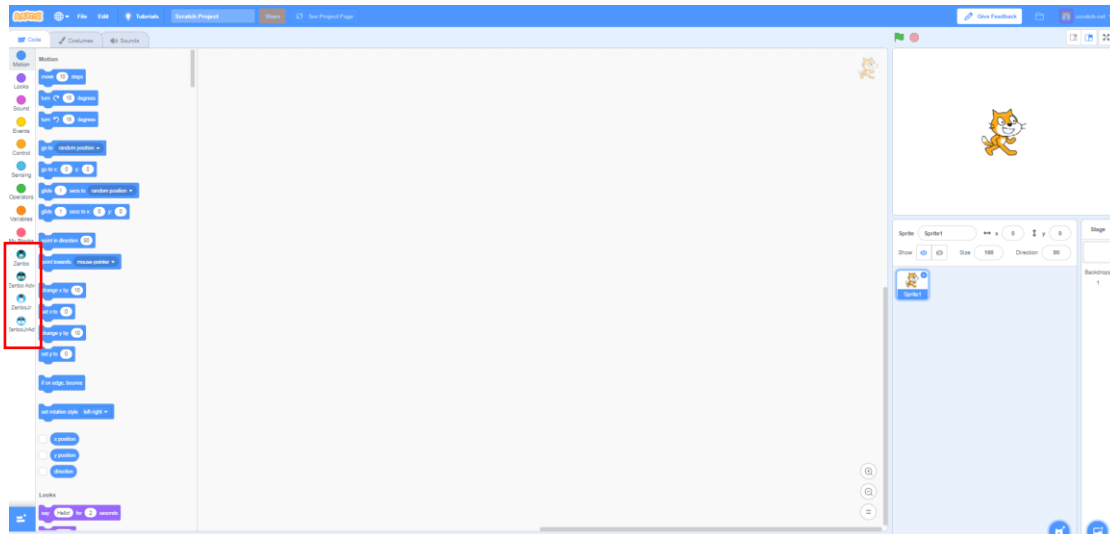
Step 3: Download the Scratch 3.0 software on the computer. Please go to the official website for the download link.

Step 4: After the download is complete, open ZenboScratch.html in the compressed file. It is recommended to use the Chrome browser to open the file.



Step 5: After opening the software, the extension blocks of Zenbo series products are

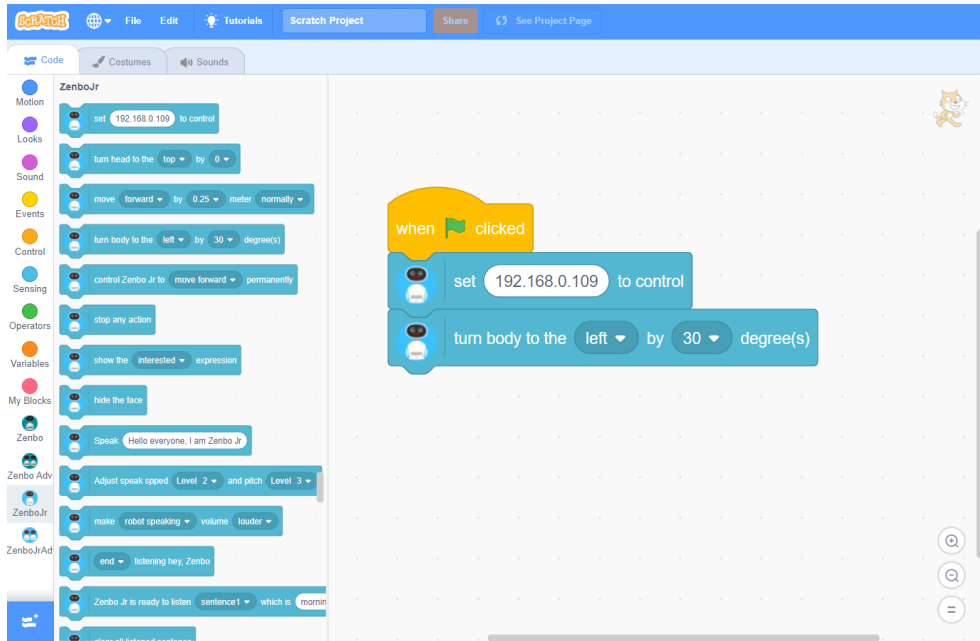
at the bottom of the left menu.



Step 6: Drag the building block for setting the IP from the extension block list, and enter the IP of the machine to be controlled.



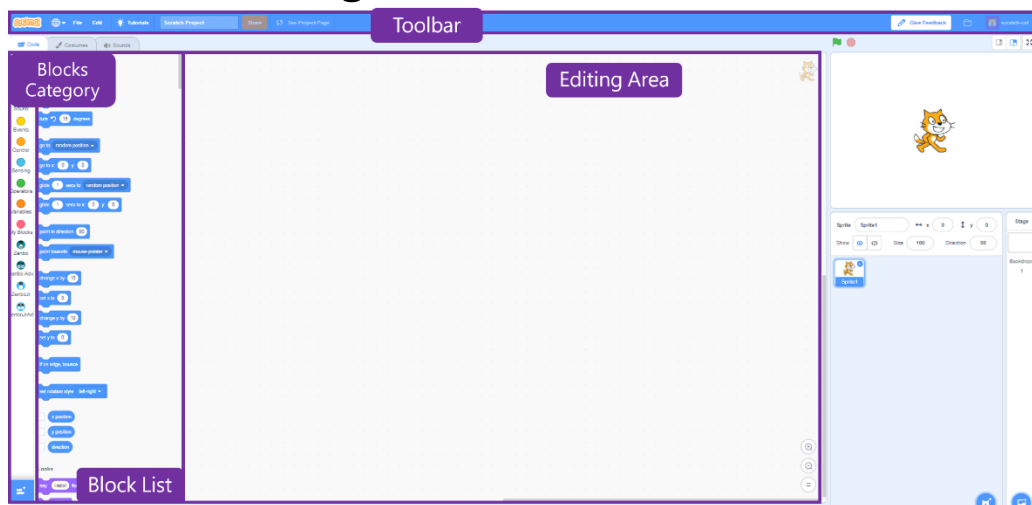
Step 7: After setting the IP, drag the action blocks you want to control, and you can start to create interesting projects.



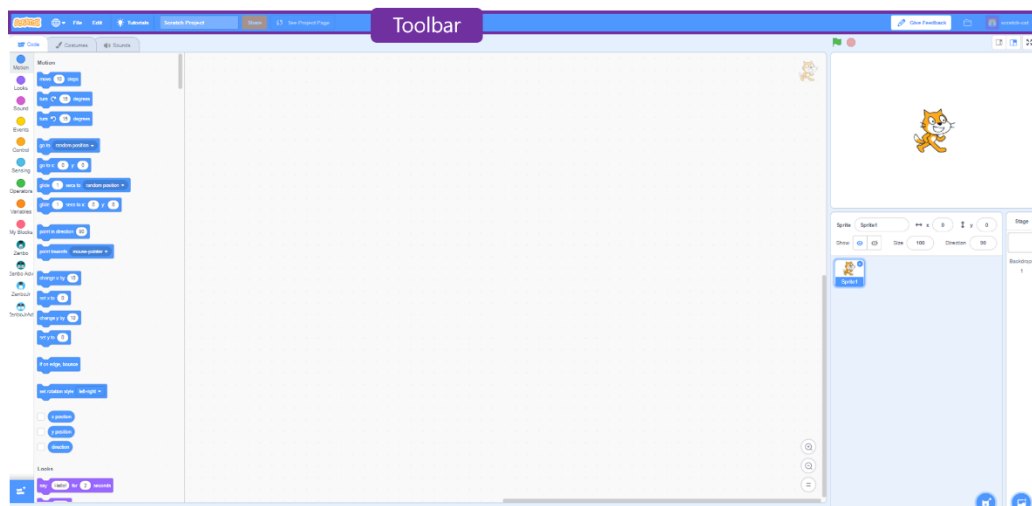
## 2. System Requirements for Extension Block of Zenbo series products.

If you want to use extension blocks with Zenbo series products, you need to download software on the official website. You can refer to the download instruction to get started, and we recommend using the Google Chrome browser. In addition, the computer and Zenbo series products need to be in the same domain.

### 3. Understanding the User Interface



#### 3.1 Toolbar



##### 3.1.1 Language

Change the display language. Several languages like Traditional Chinese, Simplified Chinese and English are supported.

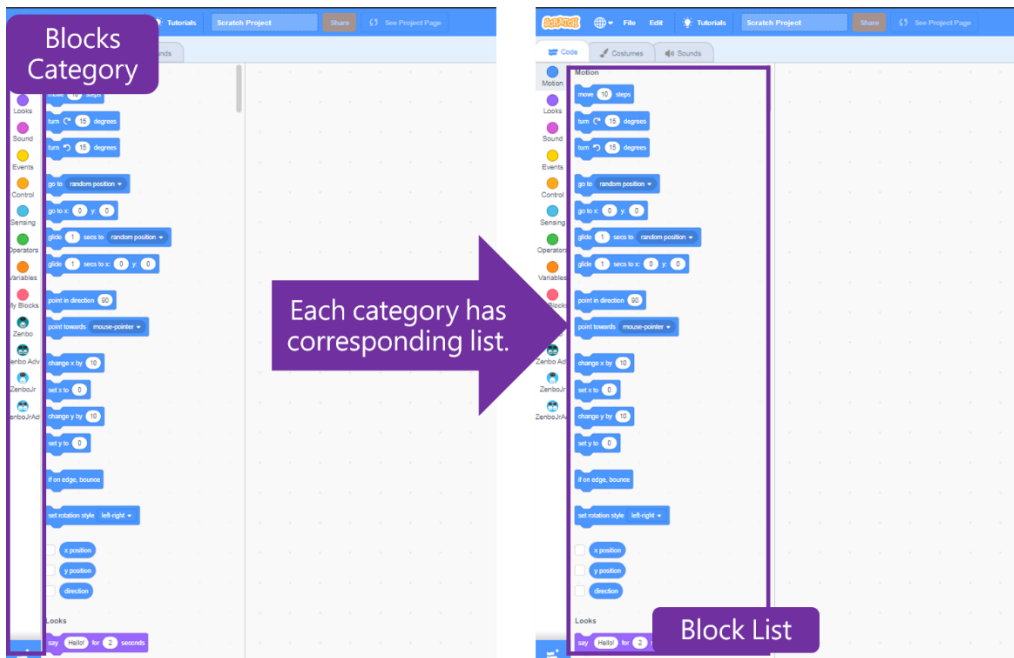
##### 3.1.2 Project

Here you can create a new project, or select a project from your own computer, or download the current project to your own computer.

##### 3.1.3 Project name

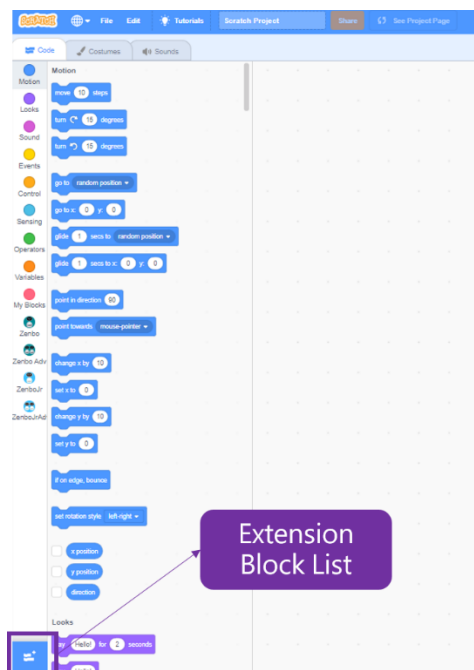
Enter the name of the project in the box, and the project name will be displayed when the file is downloaded.

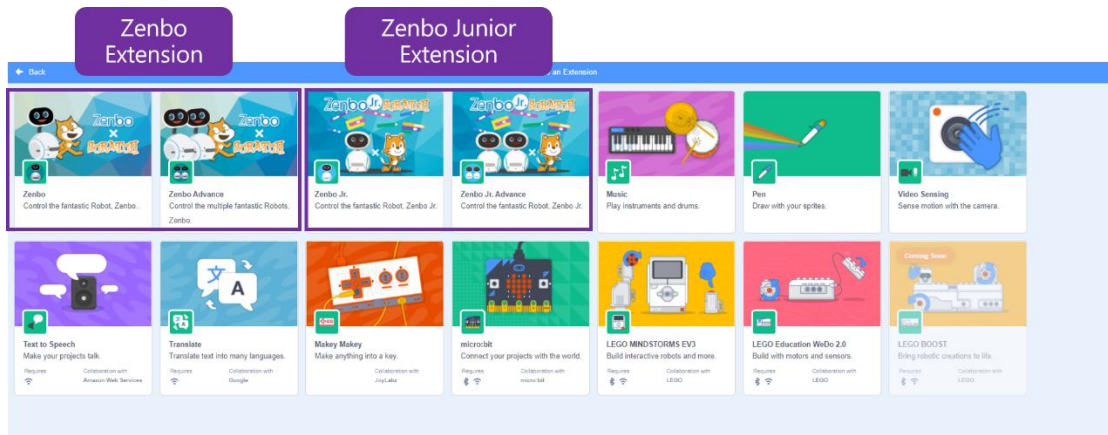
#### 3.2 Blocks Menu



### 3.2.1 Block Category

All block categories are listed here, click on the category item to open the category block list. The blue button at the bottom is the extension block list of Scratch. If you want to expand to use more devices, you can click the button to select other devices. You can also find the bricks of Zenbo series products in the list.





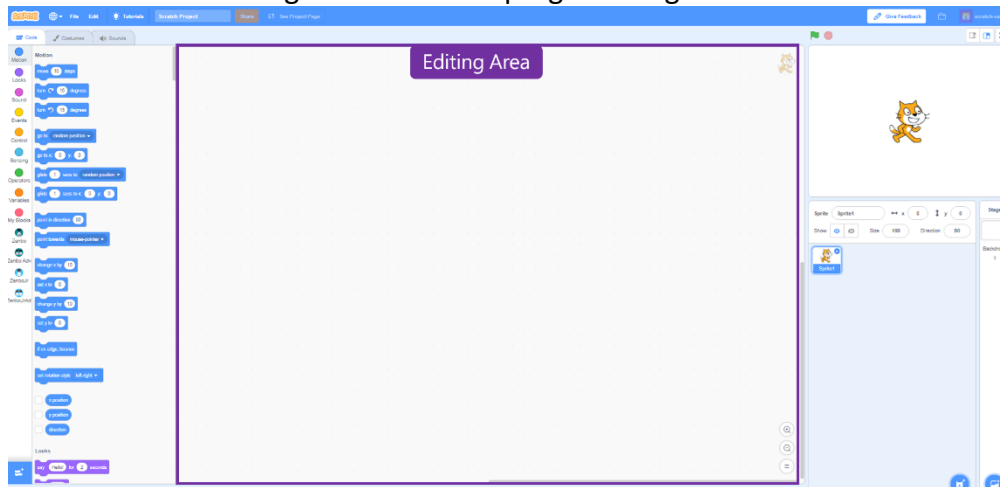
### 3.2.2 Block List

You can use the scroll button to scroll down to view the list of blocks for each category.



### 3.3 Editing Area

This is the editing area for create programming blocks.



#### 3.3.1 Combining Blocks

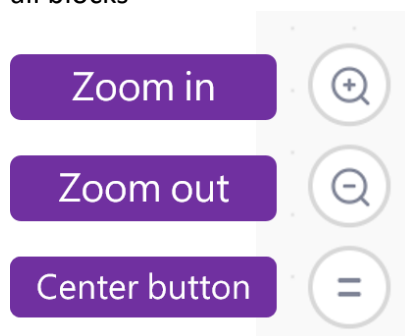
You can drag the blocks and combine them in the editing area to design desired behaviors and actions.

#### 3.3.2 Deleting Blocks

To delete a block, you can drag and drop the block to the left or right click to delete it.

#### 3.3.3 Editing Area Controls

In addition to using the mouse wheel to zoom in and out, you can use the control buttons. If there are too many blocks, you can use the center button to return to the center point or display all blocks button to display all blocks



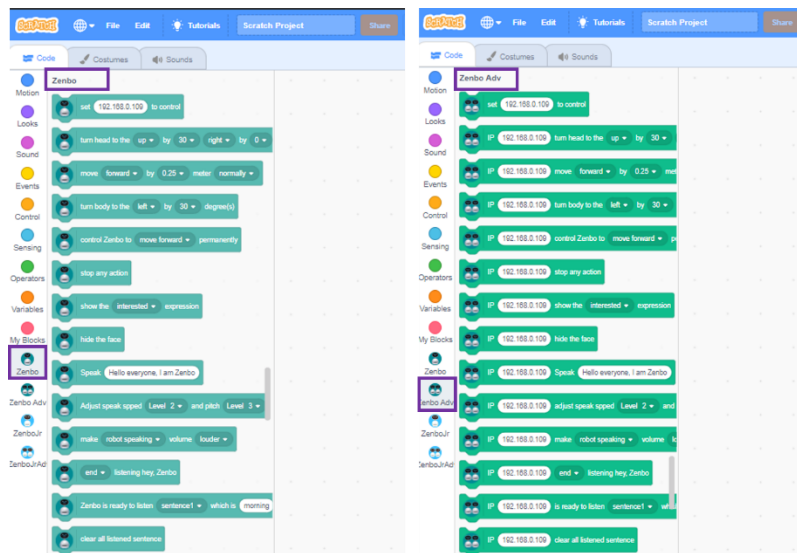
## 4. Basic Block Functions

There are currently four building blocks that can control Zenbo series products. After downloading the Scratch software on the official website, these four extension blocks will be imported by default. The building blocks used by the Zenbo robot are different from the blocks used by the Zenbo Junior. The building blocks of the two robots have a general version and an advanced version, which can control a single or multiple devices.

### 4.1 How to use block

When using the robot's extension blocks, the IP of the blocks must be set before the robot be controlled. To understand how to obtain the IP of the robot, you can refer to the instruction in [Start Guide](#).

### 4.2 Zenbo Robot



#### 4.2.1 Zenbo General version

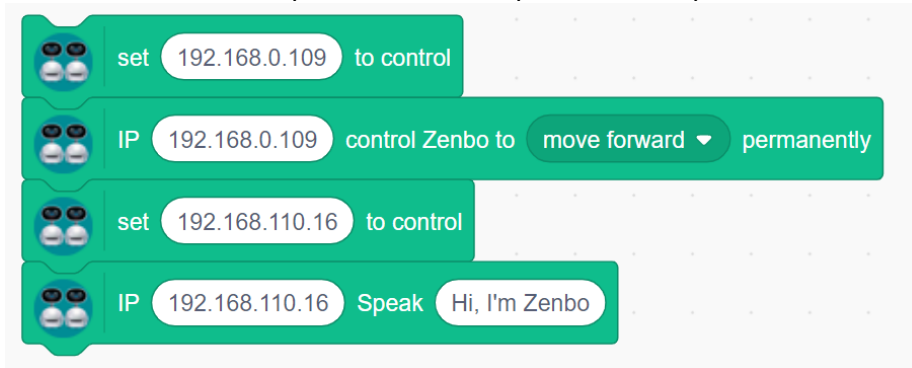
The general version of Zenbo can only control a single Zenbo robot. The abbreviated name in the block menu is "Zenbo". To control a single Zenbo robot, it is recommended to use this type of block. The blocks can control the robot's movement, expression, sensing, sentence, and multimedia file functions.

#### 4.2.2 Zenbo Advanced version

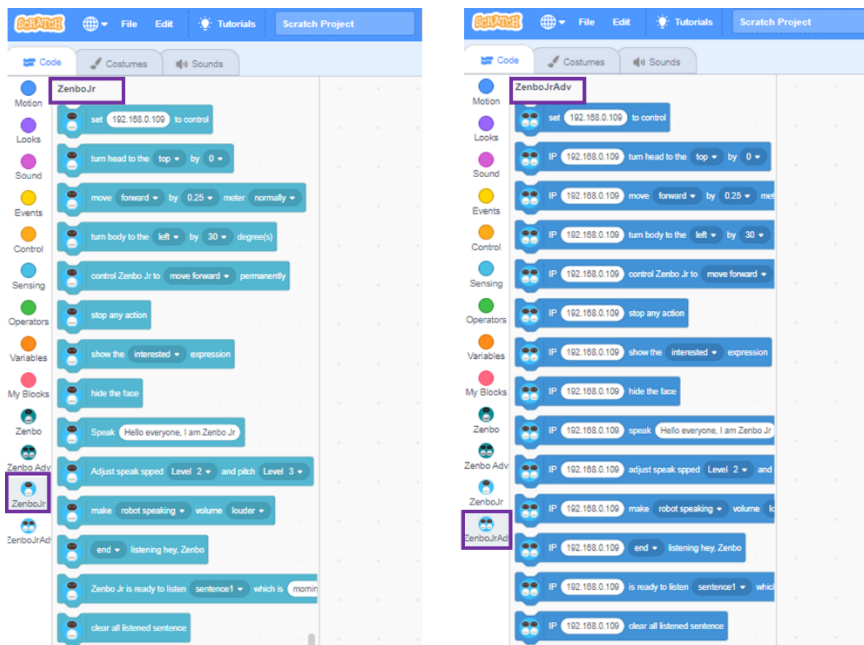
Zenbo Advanced version can only control a single Zenbo robot. The abbreviated name in the block menu is "Zenbo Adv". If you want to control more than two Zenbo robots, it is recommended to use this type of block. The blocks can control the robot's movement, facial expressions, sensing, sentences, and multimedia file functions.

When you want to control different robots, you must place the blocks that set the robot's IP before moving the blocks. Like the following example, if

you want to control two Zenbo robots to move forward and speak separately, you need to specify different Zenbo IP before the two action blocks to control the specified robot to perform the specified action.



### 4.3 Zenbo Junior



#### 4.3.1 Zenbo Junior General version

The general version of Zenbo Junior can only control a single Zenbo Junior. The abbreviated name in the block menu is "Zenbo Jr". To control a single Zenbo Junior, it is recommended to use this type of block. The blocks can control the robot's movement, expression, sensing, sentence, and multimedia file functions.

#### 4.3.2 Zenbo Junior Advanced version

Zenbo Junior Advanced version can only control a single Zenbo Junior robot. The abbreviated name in the block menu is "Zenbo Jr Adv". If you want to control more than two Zenbo Junior robots, it is recommended to use this type of block. The blocks can control the robot's movement, facial expressions, sensing, sentences, and multimedia file functions.

When you want to control different robots, you must place the blocks that set the robot's IP before moving the blocks. Like the following example, if you want to control two Zenbo Junior robots to move forward and speak separately, you need to specify different Zenbo Junior's IP before the two action blocks to control the specified robot to perform the specified action.

