



FREE YOUR INNOVATION

Freenove is an open-source electronics platform.
www.freenove.com

Warning

When you purchase or use this product, please note the following:

- This product contains small parts. Swallowing or improper operation them can cause serious infections and death. Seek immediate medical attention when the accident happened.
- Do not allow children under 3 years old to play with or near this product. Please place this product in where children under 3 years of age cannot reach.
- Do not allow children lack of ability of safe to use this product alone without parental care.
- Never use this product and its parts near any AC electrical outlet or other circuits to avoid the potential risk of electric shock.
- Never use this product near any liquid and fire.
- Keep conductive materials away from this product.
- Never store or use this product in any extreme environments such as extreme hot or cold, high humidity and etc.
- Remember to turn off circuits when not in use this product or when left.
- Do not touch any moving and rotating parts of this product while they are operating.
- Some parts of this product may become warm to touch when used in certain circuit designs. This is normal. Improper operation may cause excessively overheating.
- Using this product not in accordance with the specification may cause damage to the product.

About

Freenove is an open-source electronics platform. Freenove is committed to helping customer quickly realize the creative idea and product prototypes, making it easy to get started for enthusiasts of programing and electronics and launching innovative open source products. Our services include:

- Electronic components and modules
- Learning kits for Arduino
- Learning kits for Raspberry Pi
- Learning kits for Technology
- Robot kits
- Auxiliary tools for creations

Our code and circuit are open source. You can obtain the details and the latest information through visiting the following web sites:

<http://www.freenove.com>

<https://github.com/freenove>

Your comments and suggestions are warmly welcomed, please send them to the following email address:

support@freenove.com

Support

Freenove provides free and quick technical support, including but not limited to:

- Quality problems of products
- Problems in using products
- Questions for learning and technology
- Opinions and suggestions
- Ideas and thoughts

Please send email to:

support@freenove.com

On working day, we usually reply to you within 24 hours.

Copyright

Freenove reserves all rights to this book. No copies or plagiarizations are allowed for the purpose of commercial use.

The code and circuit involved in this product are released as Creative Commons Attribution ShareAlike 3.0. This means you can use them on your own derived works, in part or completely, as long as you also adopt the same license. Freenove brand and Freenove logo are copyright of Freenove Creative Technology Co., Ltd and cannot be used without formal permission.

Contents

Contents	I
Preface	1
Install Freenove app	2
Using.....	5
Freenove Three-wheeled Smart Car Kit for Raspberry Pi	6
Freenove Quadraped Robot Kit.....	8
Freenove Hexapod Robot Kit.....	12
What's next?.....	15

Preface

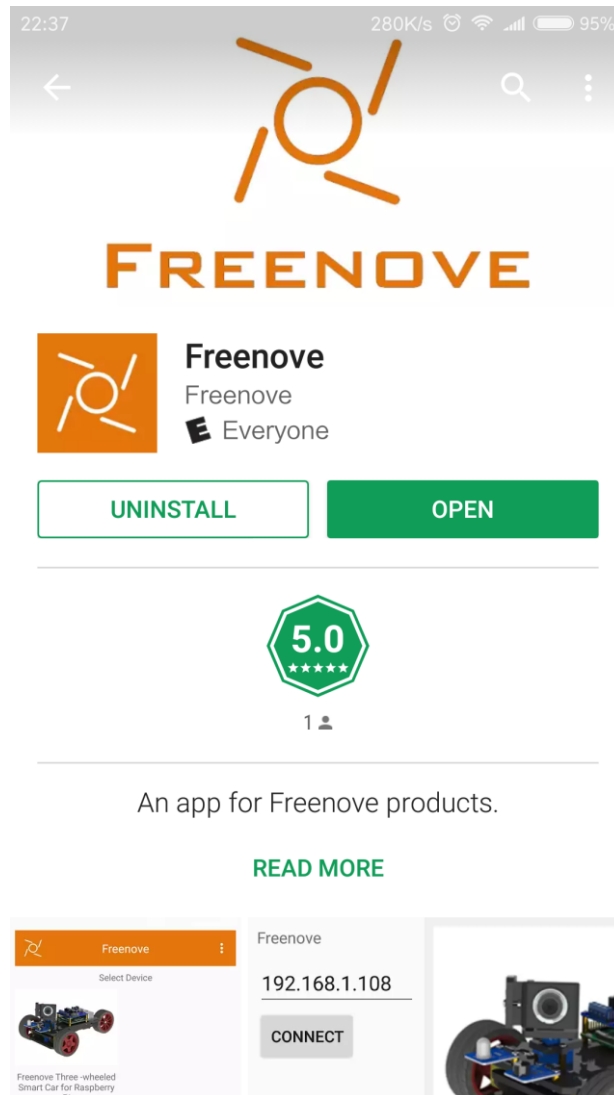
Welcome to use Freenove products. Freenove app for Freenove is the controller of Freenove official device (robot /car/aircraft, etc.), which will make you to enjoy using Android devices to control the the robot device.

Install Freenove app

We have provided three ways to install app, you can choose any one.

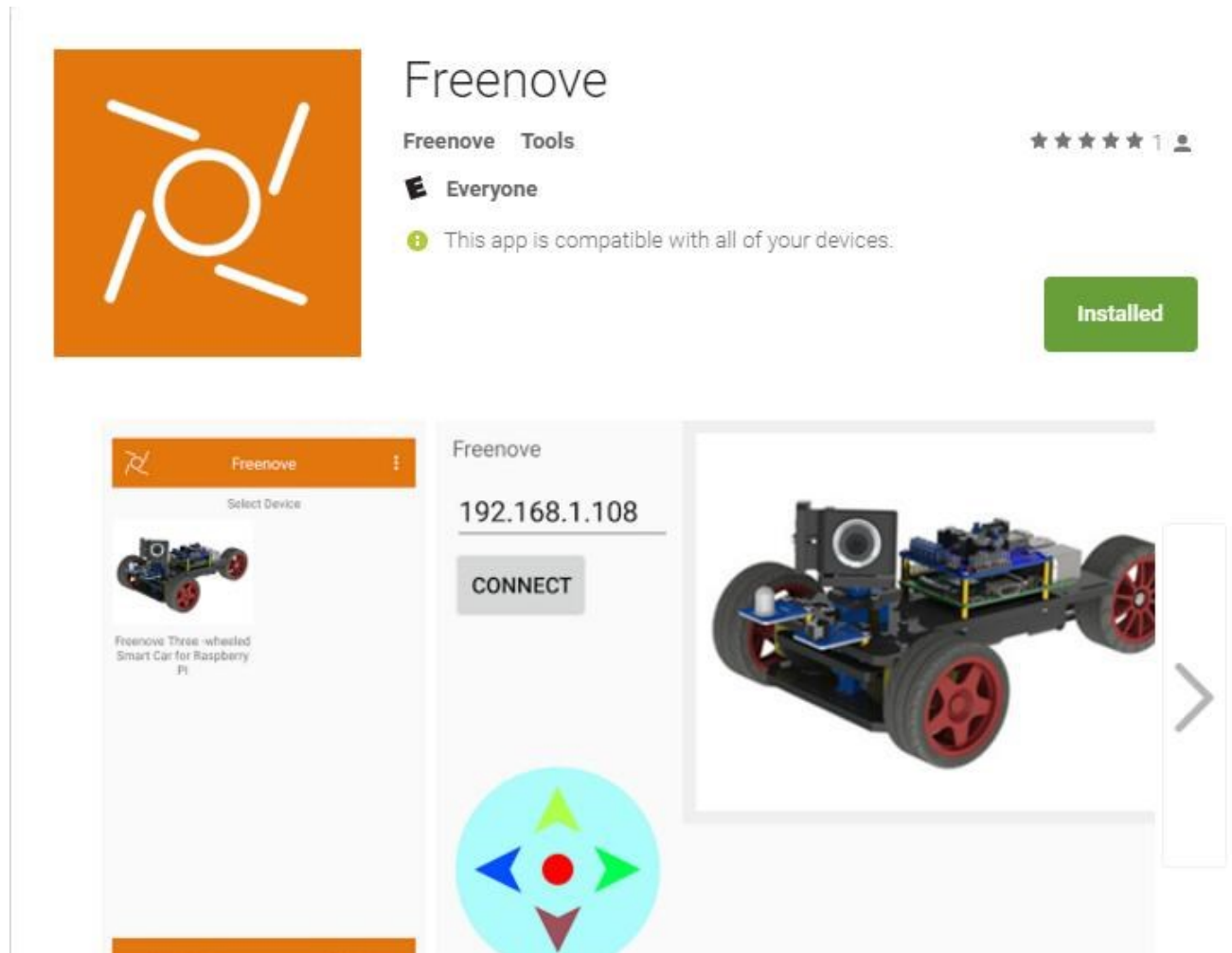
Method 1

Use Google play to search “freenove”, download and install.



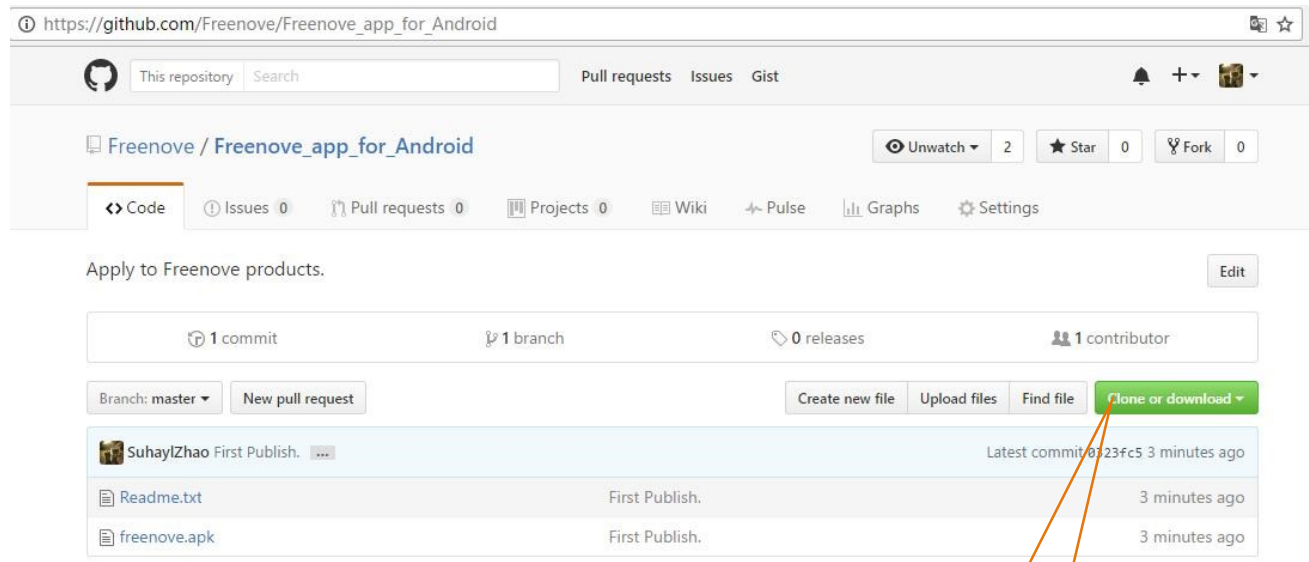
Method 2

Visit <https://play.google.com/store/apps/details?id=com.freenove.suhayl.Freenove>, and click install.



Method 3

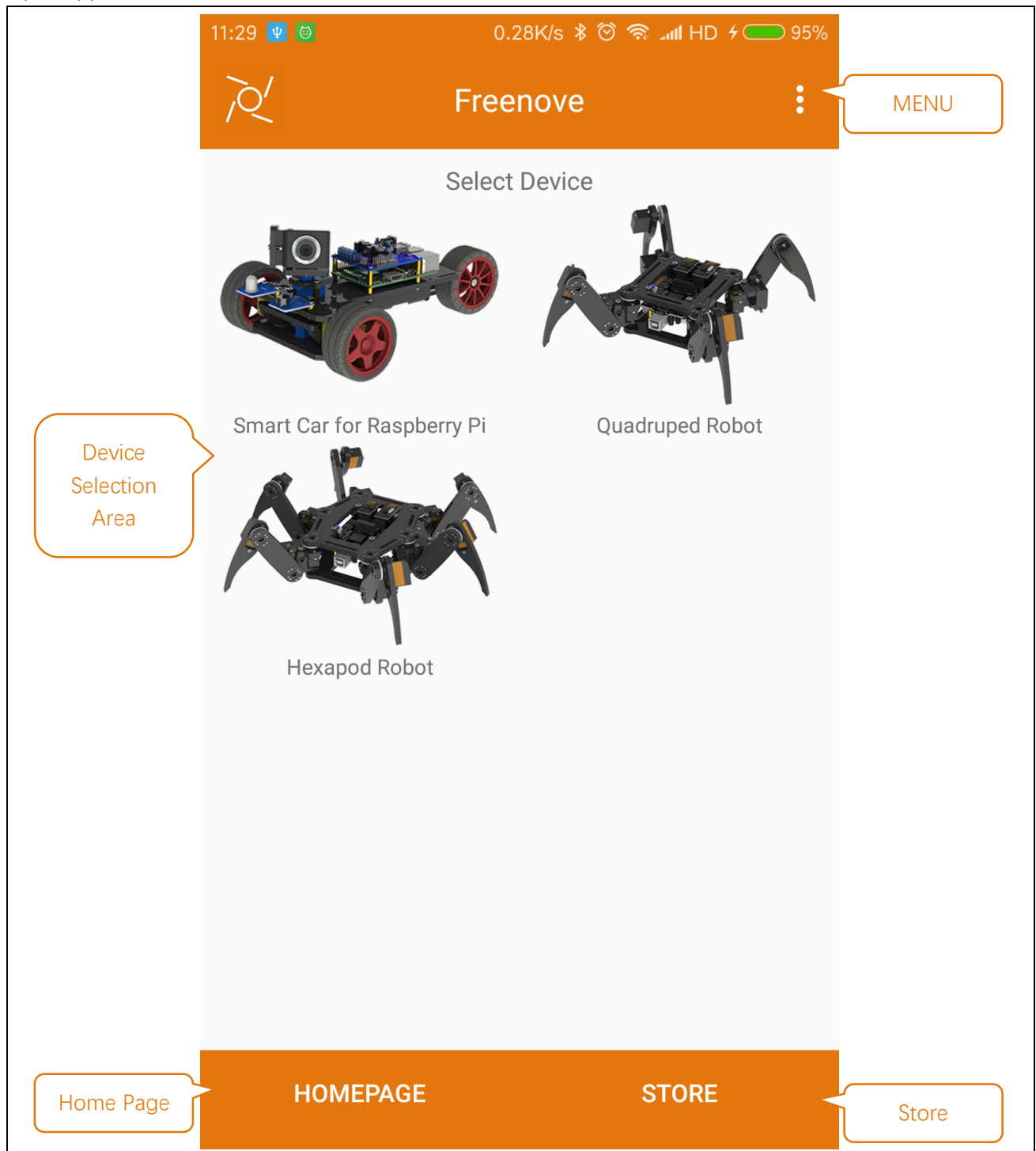
Visit https://github.com/Freenove/Freenove_app_for_Android, download the files in this library, and install freenove.apk to your Android phone manually.



The screenshot shows the GitHub repository page for `Freenove / Freenove_app_for_Android`. The repository has 2 watches, 0 stars, and 0 forks. The main content area shows the repository name, a search bar, and a list of files: `Readme.txt` and `freenove.apk`. A callout box points to the `Clone or download` button with the text "Click here to download."

Using

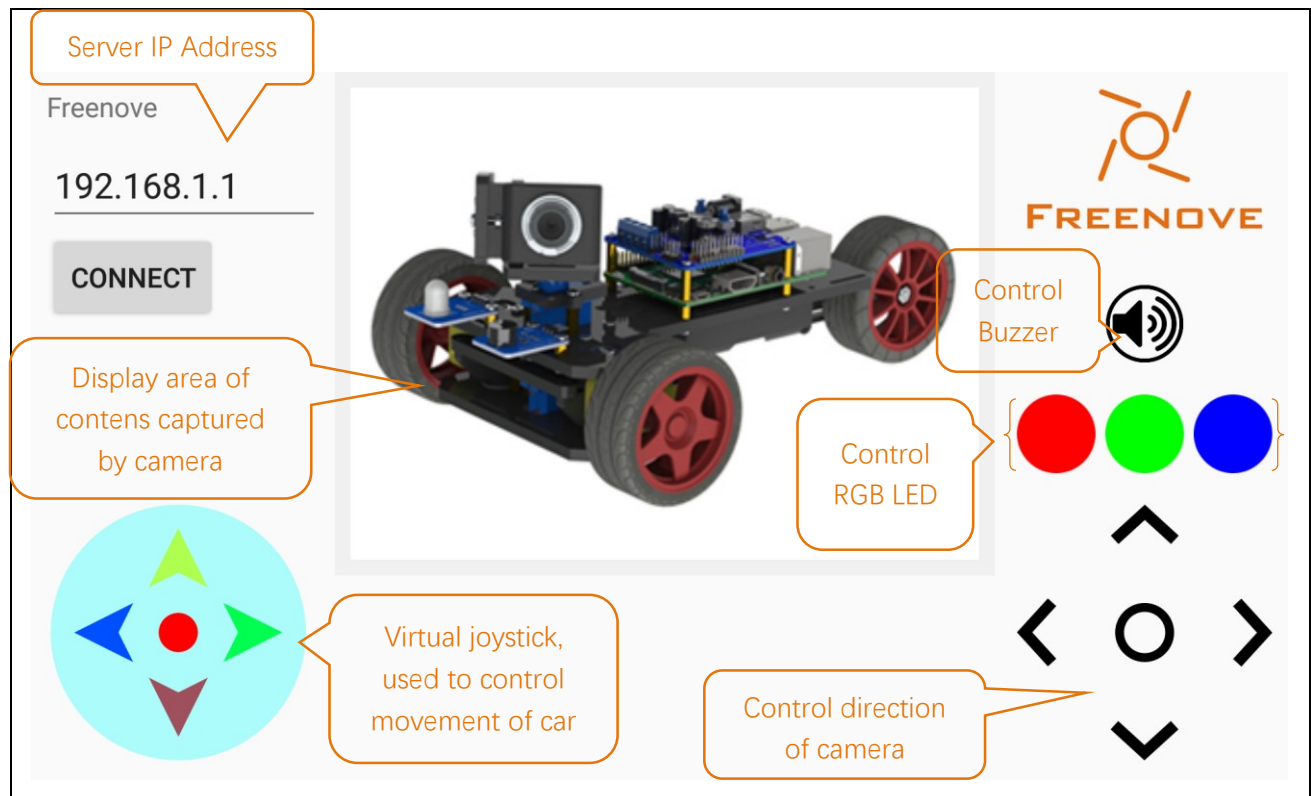
Open application "Freenove", as shown below:



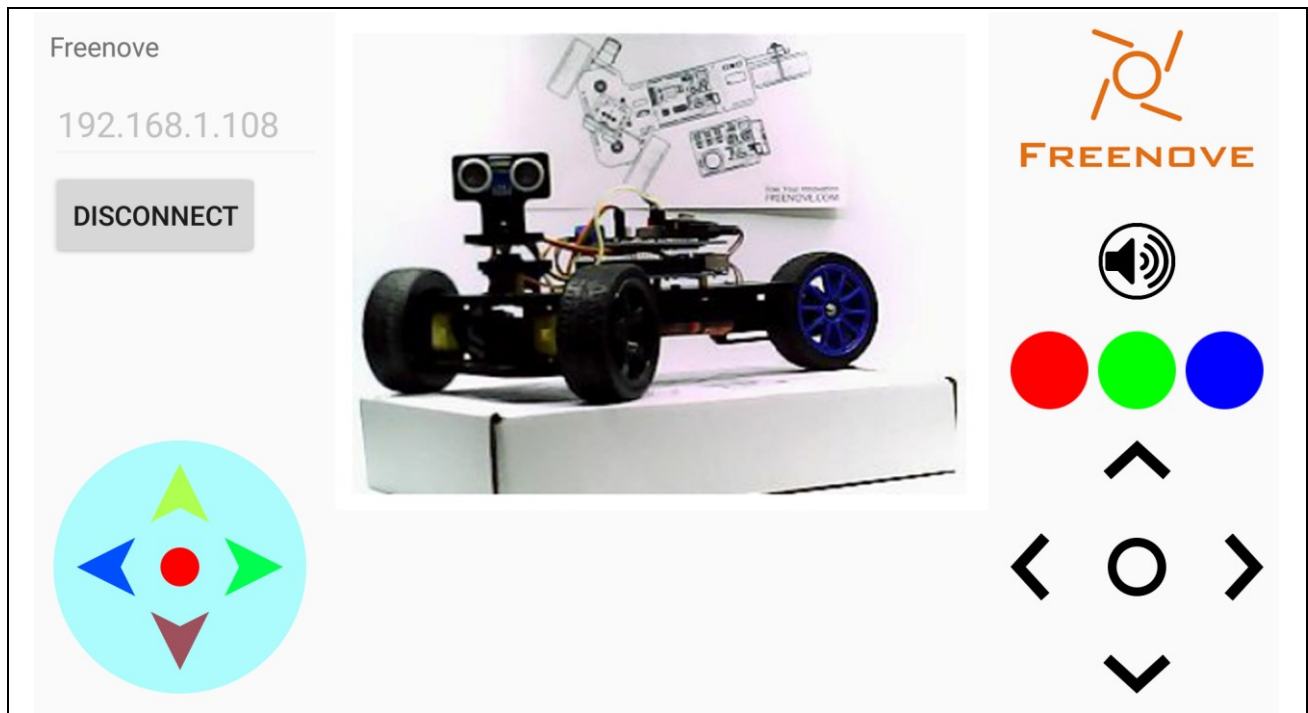
There will be more Freenove products added to the device selection area in the future.

Freenove Three-wheeled Smart Car Kit for Raspberry Pi

Click "Smart Car for Raspberry Pi". then application jump to following interface.



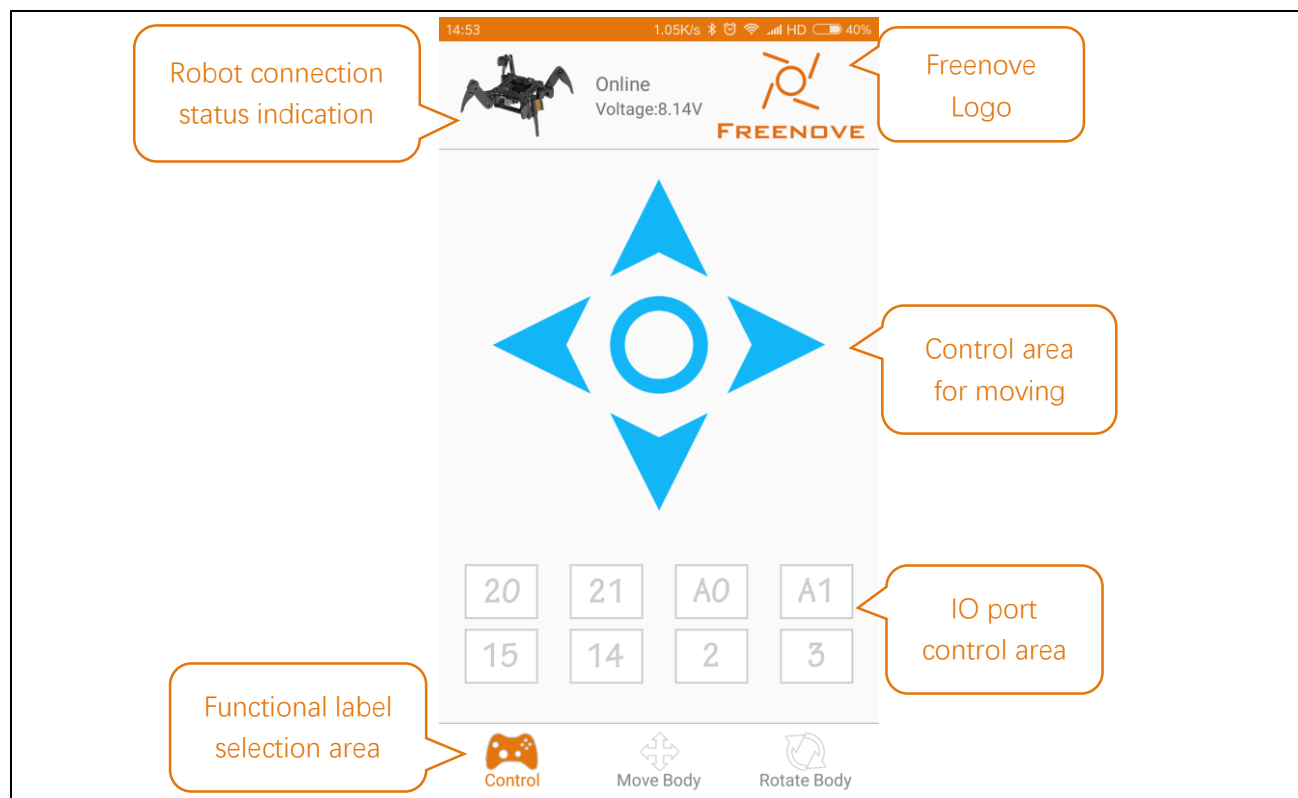
Make sure camera and TCP services of the RPi have been opened. Then enter your RPi IP address in the column Server IP Address, click the button CONNECT. Then the connection succeeds later. RPi IP address is 192.168.1.108. after a successful connection, the interface is shown below.



The IP address will be stored after correct onnection, so that it can be used multiple times without having to output the IP address every time. Then you can control the car.

Freenove Quadrupe Robot Kit

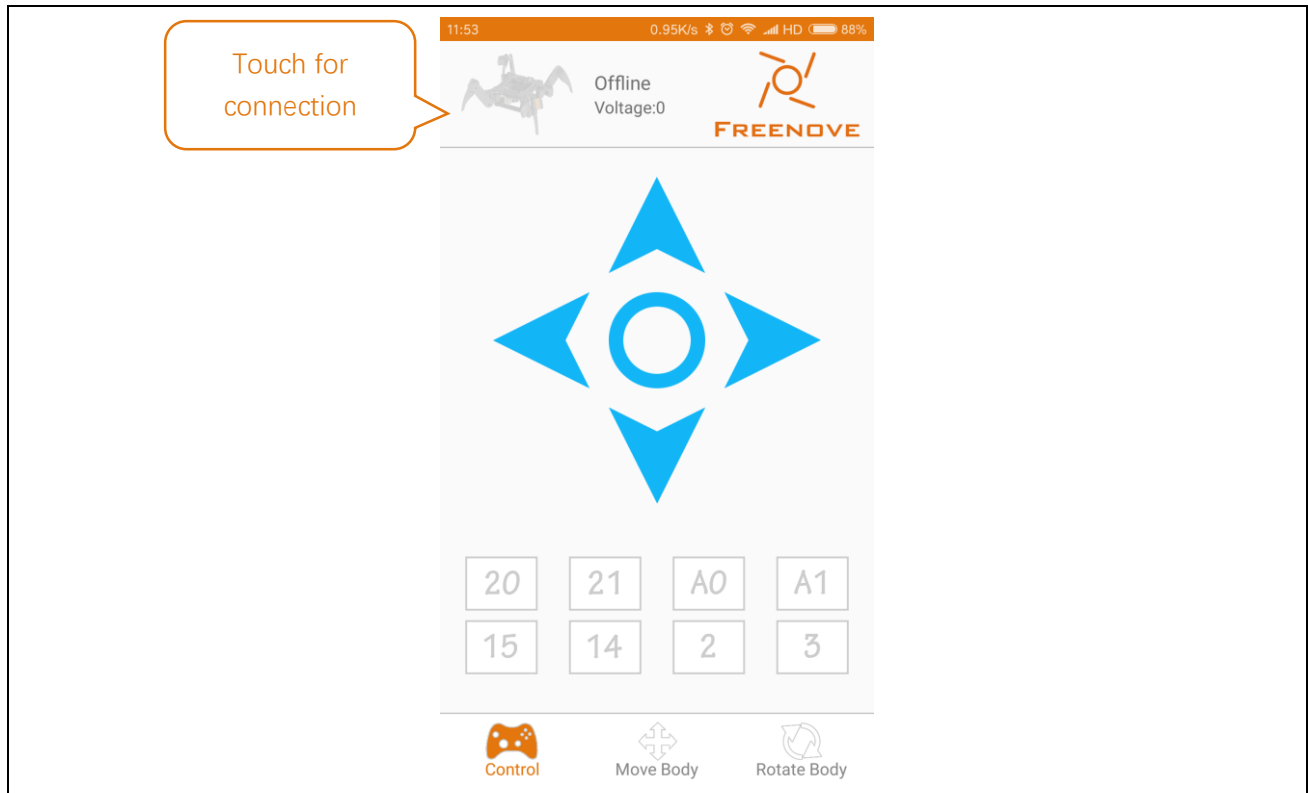
Click Freenove Freenove Quadrupe Robot Kit, then it jumps to the following interface.



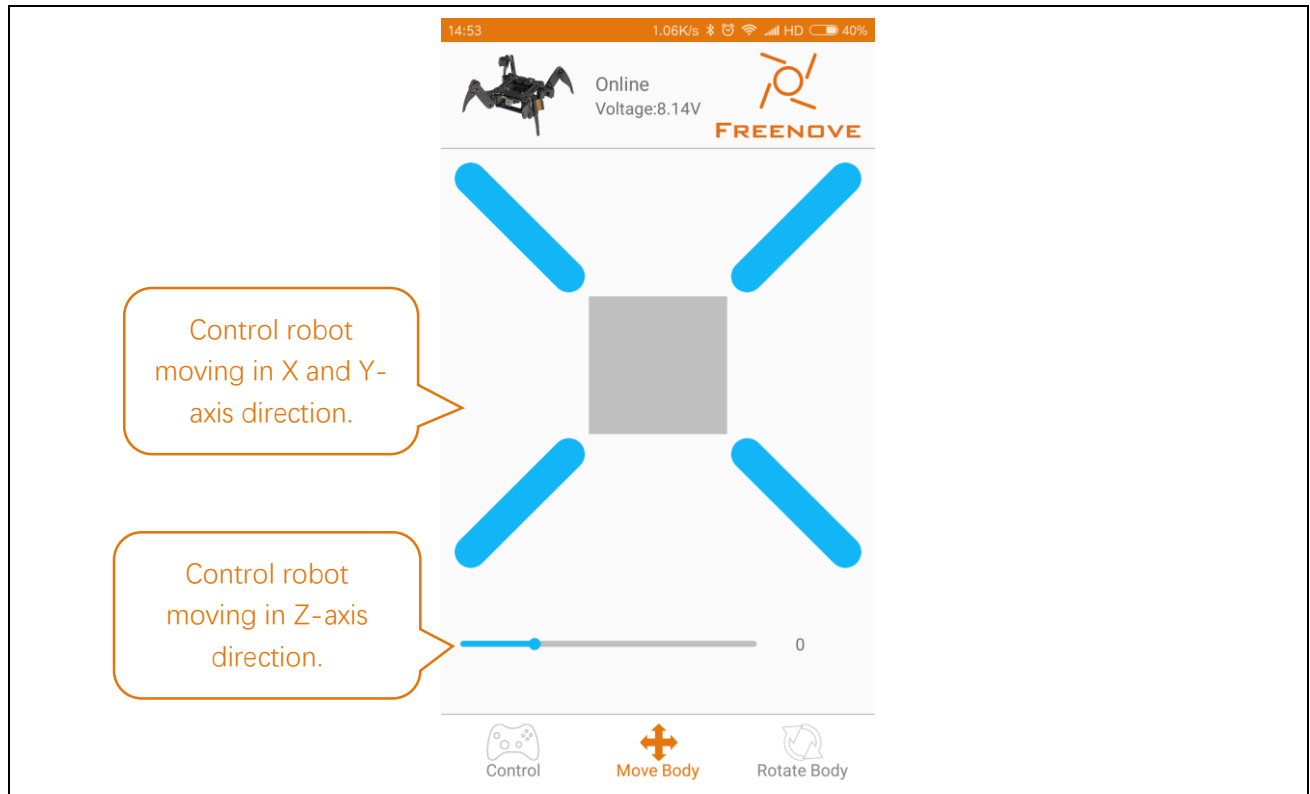
If your Android device has been connected to the robot via WiFi, then the app will connect the robot automatically. In this page, you can control robot's moving through touching control button of control area for moving. You can also control the IO output level on robot through touching button with digital label, on the bottom.

If the WiFi of your Android device is not connected to the robot, you will not be able to control the robot directly. If the connection succeeds, you can touch the robot indication icon to connect on the top left, or reopen Freenove app connection.

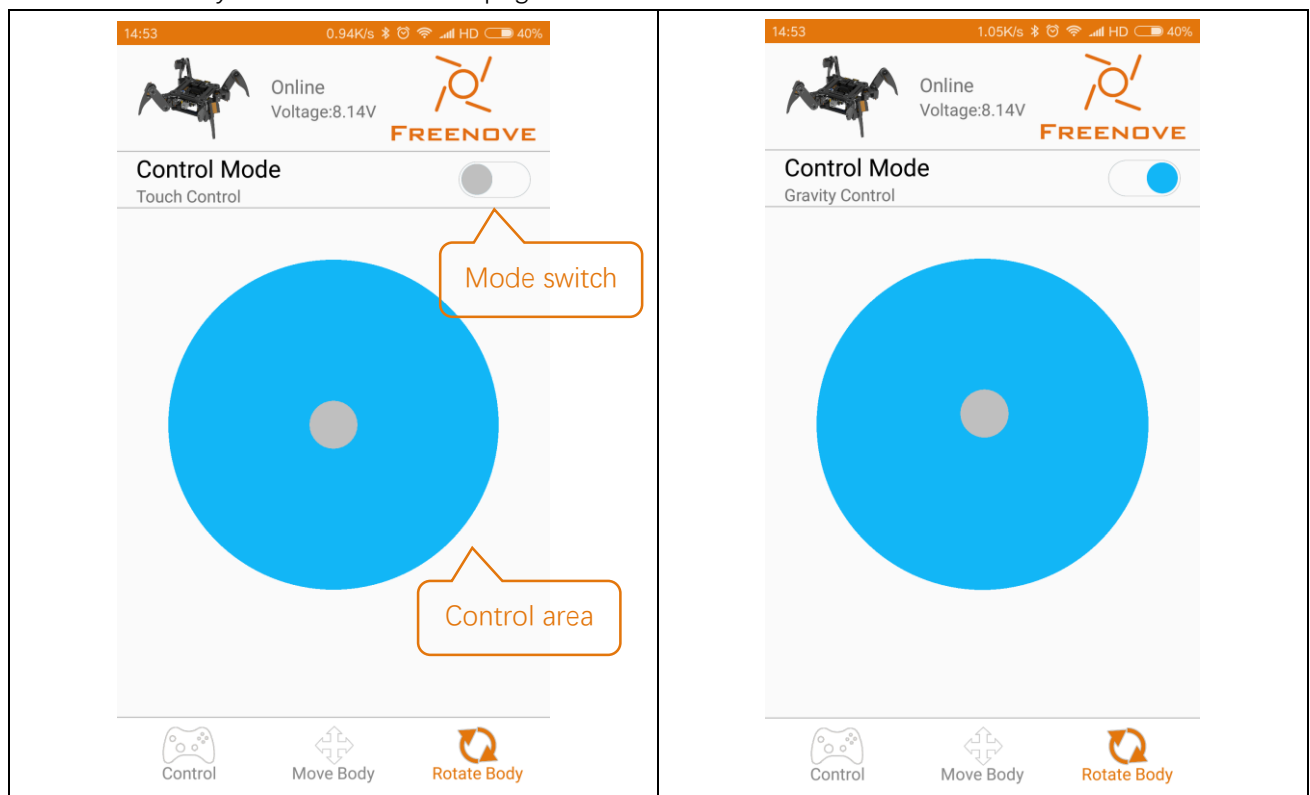
The following is a page screenshot of the app under offline.



Click "Move Body" button to enter the page below.



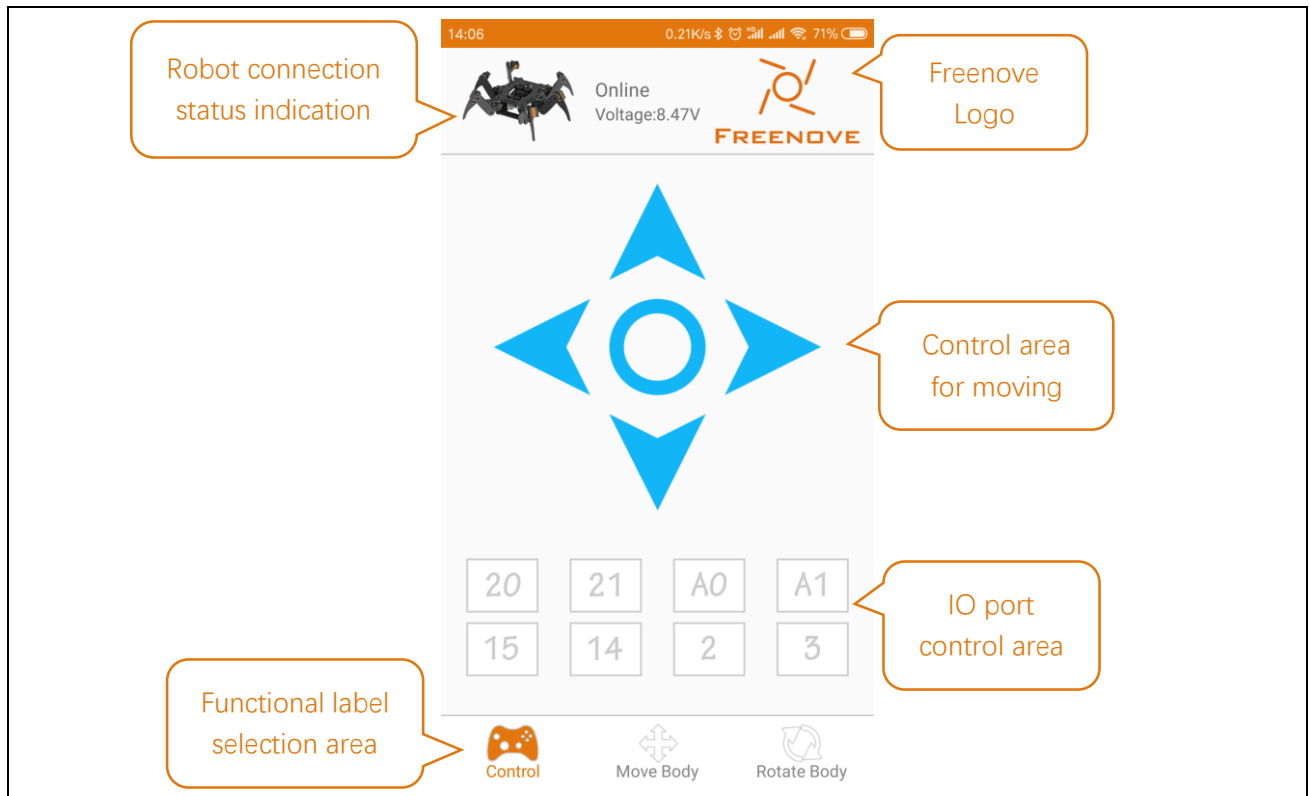
In this page, you can control the robot body moving in three-dimensional space and with its feet no moving. Click "Rotate Body" button to enter the page below.



In this page, you can control the robot body to tilt at any angle by touch control or gravity control. The control mode can be switched by the button at the top right.

Freenove Hexapod Robot Kit

Click Freenove Hexapod Robot Kit, then it jumps to the following interface.



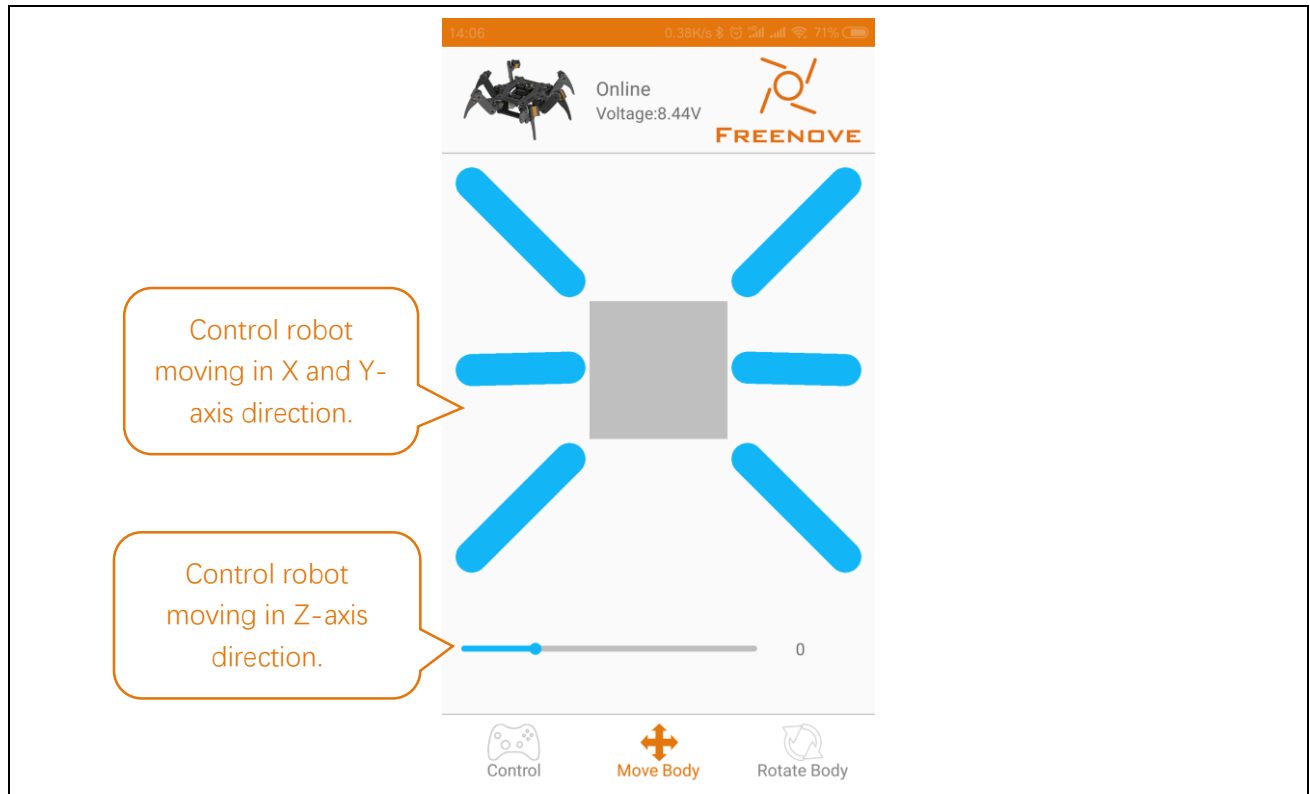
If your Android device has been connected to the robot via WiFi, then the app will connect the robot automatically. In this page, you can control robot's moving through touching control button of control area for moving. You can also control the IO output level on robot through touching button with digital label, on the bottom.

If the WiFi of your Android device is not connected to the robot, you will not be able to control the robot directly. If the connection succeeds, you can touch the robot indication icon to connect on the top left, or reopen Freenove app connection.

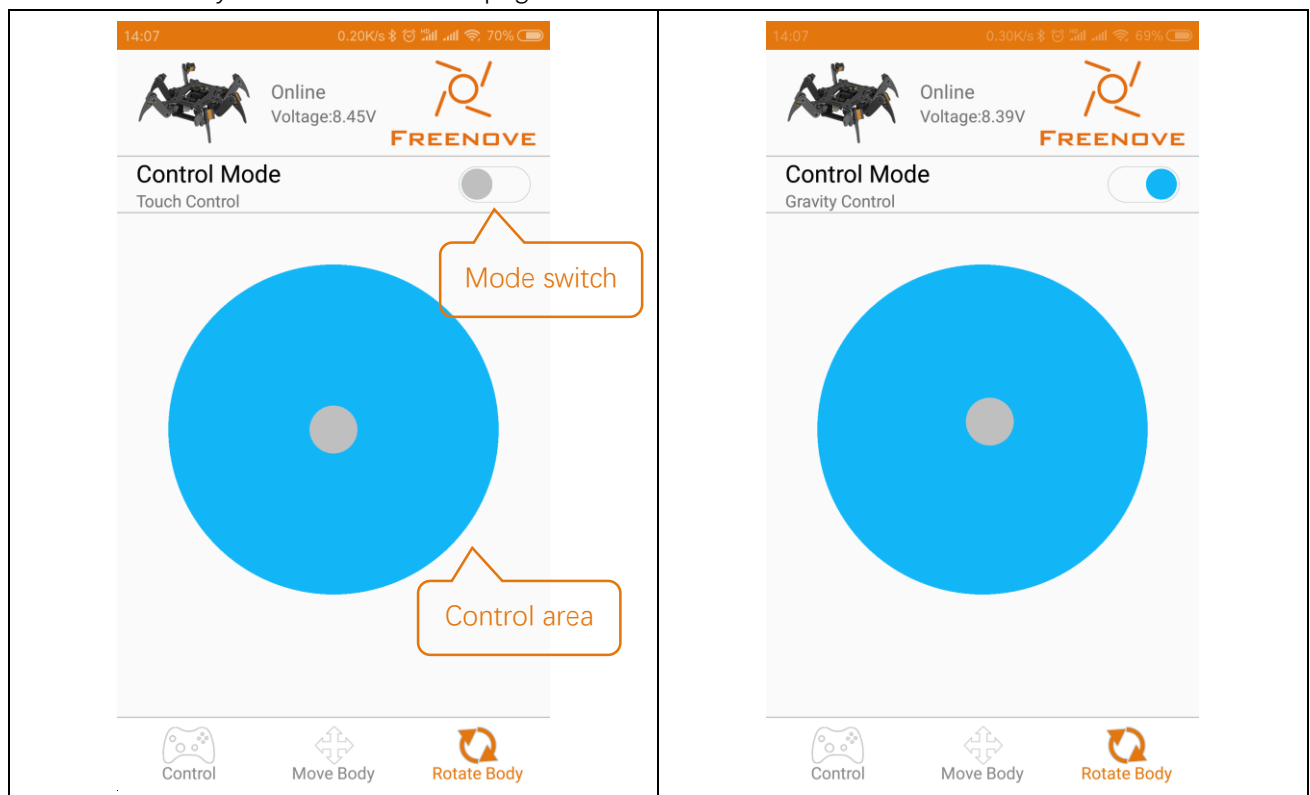
The following is a page screenshot of the app under offline.



Click "Move Body" button to enter the page below.



In this page, you can control the robot body moving in three-dimensional space and with its feet no moving. Click "Rotate Body" button to enter the page below.



In this page, you can control the robot body to tilt at any angle by touch control or gravity control. The control mode can be switched by the button at the top right.

What's next?

Thanks for your reading.

This book is all over here. If you find any mistakes, missions or you have other ideas and questions about contents of this book or the kit and ect, please feel free to contact us, and we will check and correct it as soon as possible.

We will continue to update the application, add more devices, and optimize the software to make it with a better user experience in the future.

If you want to learn more about Arduino, Raspberry Pi, smart cars, robots and other interesting products in science and technology, please continue to focus on our website. We will continue to launch cost-effective, innovative and exciting products.

Thank you again for choosing Freenove products.