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User Manual




【 Alpha 1S 】

V1.1

We design interactive intelligent robots to help people,
serve people, and entertain people.

Union Brother Technology

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Safety Instructions

Dear User(s), Congratulations! You are now an official owner of Alpha, the intelligent robot. Before using Alpha, please read this manual carefully.

1. Alpha is recommended for users over the age of 12.
2. To avoid personal injury or damage to Alpha, do not insert your fingers or any other foreign objects into his joints or connectors.
3. Alpha needs your constant love and attention, so remember to treat him with care.
4. Never assemble or disassemble Alpha on your own. For repairs, please contact qualified service personnel. (Refer to the "Customer Support" page on the back of the cover.)

5. Keep Alpha away from your face and eyes as well as from children.
6. Remember, Alpha is not waterproof, and you should always keep him away from an open flame.
7. Please operate Alpha on smooth surfaces, as uneven surfaces, inclining or wet floors, or areas with obstacles may stall him or cause him to fall.
8. When programming actions and debugging, if Alpha's joints are twisted due to improper programming, please shut down and turn off the power supply immediately as to avoid damage.
9. The servos (motors) of Alpha's joints are precision products. Please avoid all actions that will lead to external shock.
10. When Alpha is moving or performing an action, do not move his joints with force to prevent his unnecessary wear and tear.
11. Please avoid damaging Alpha by dropping him or causing him to fall. Whenever he is moving or performing an action, try to provide him with necessary and effective protection. Do not use Alpha on the edge of a table, stairway, or in any location that may lead to him falling down and being damaged. We do not offer a free repair service for cases when Alpha is dropped or falls down from heights.
12. Gears in the servos are removable and consumable materials. After long or excessive use, replacements must be made. We suggest to use it less than 1 hour per time.

13. The charging time for the battery is approximately two hours. Only use the included charger or the charger specifically designed for Alpha.
14. Stop using Alpha when the servos overheated and resume once the temperature is normal again.
15. Please do not touch Alpha when he is in use.

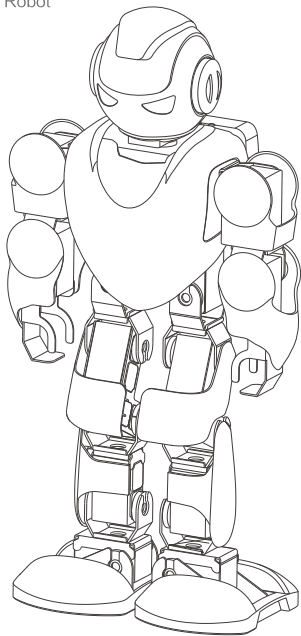
! If any of the following circumstances occur, please shut off the power immediately and contact our customer service:

- a. Alpha emits smoke or smells.
- b. Water or other foreign objects penetrate Alpha.
- c. Alpha becomes damaged.

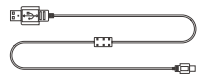
**This packing contain useful information
Please keep it!**

01 Package Contents

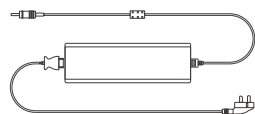
Robot



Download cable



Charger or adapter



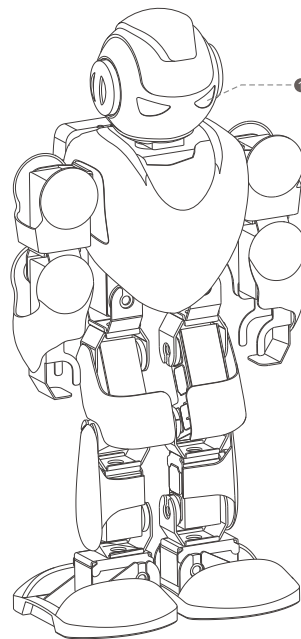
User manual



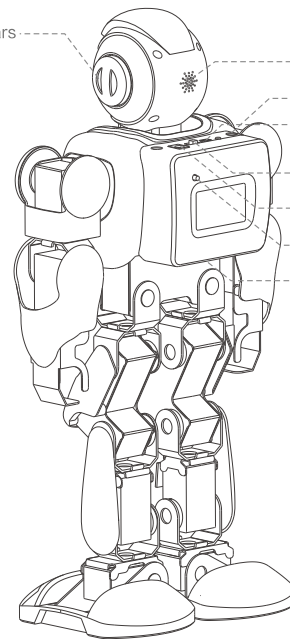
CD



02 Parts and Components



Front view



Rear view

① LED eyes

① LED ears

② Speaker

③ Reset

④ On/off

⑤ DC input

⑥ Power

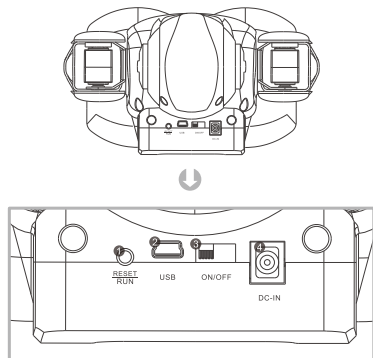
⑦ LED Power

⑧ SD card

02 Parts and Components

Controller The mainboard is stored in Alpha's chest with operation buttons on his back. The mainboard serves as his brain, which controls and coordinates all joints to move simultaneously.

The human-robot interaction is done through the control panel on the mainboard, which contains an external power interface, a power switch, a USB port, and a "Reset/Start" button. Their positions are shown below.



❶ Reset

❷ On/off

❸ USB

❹ DC input

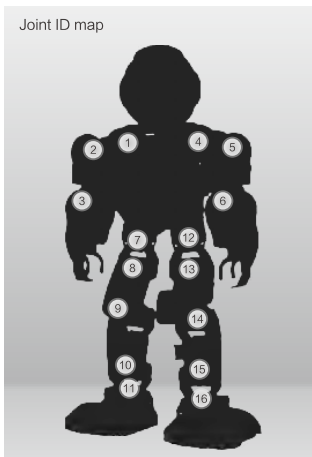
02 Parts and Components

Servo actuator The Alpha series contains a number of servo actuators. Each actuator has a fixed identification number (ID). The ID of the corresponding joints is shown in the following figure and operating the corresponding servo will control the angle and speed of Alpha's joints.

Battery The battery is located in Alpha's abdomen. It is a special large-capacity li-ion battery with a built-in overcharge and over-discharge protection circuit.

Charging Before using Alpha, make sure is fully charged. Insert one end of the adapter to the charging port labeled "DC-IN" and connect the other to a 220V /110V AC power socket. When the charging indicator turns red, it indicates that Alpha is being charged. When charging is completed, the indicator will turn green, which indicates that the battery is fully charged. Please pull the adapter out of the charging port. Alpha can be debugged when charging.

02 Parts and Components



Accessory charger

- Equipped with a built-in 7.4V battery that is non-detachable and irreplaceable. If damaged, please contact our Customer Service Department for repairs.
- The charger should be used by an adult or under adult supervision.
- Regularly check the charger wire, plug, housing, and other components for damage. If damage is found, please discontinue use until repaired.
- The charger is not a toy, and Alpha is only compatible with the recommended charger (100V–240 V input, 9.6V 5A output).

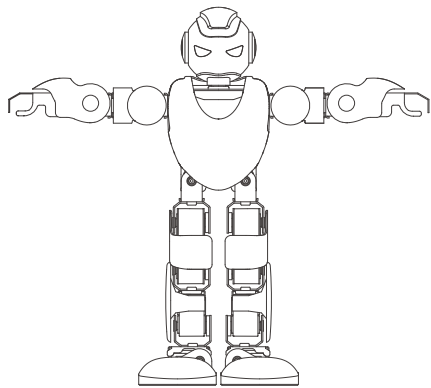
02 Parts and Components

- You may use a wet cloth to wipe the surface of Alpha. Please disconnect him from the charger before cleaning.
- 1) Please ask an adult to assist you when opening package.
 - 2) This product cannot be heated. Please keep Alpha away from an open flame.

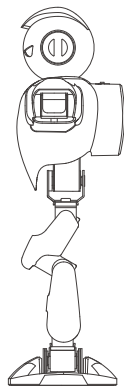
03 Chapter IV. Operating Alpha

By switching power to "On", Alpha's LED eyes will turn blue. This indicates that he is in his standby state. Press "Reset/Start" and Alpha will enter his reset position, which is with his feet together and arms stretched out (as shown below). As the reset position requires large movements, please hold his backpack when resetting to prevent him from falling down. Alpha's joints are locked when in use. Therefore, do not force or press his joints for this will cause damage. By pressing "Reset/Start" once again, Alpha will initialize his introduction program, which includes introducing himself, singing, dancing, performing Kung Fu, etc.

Reset position

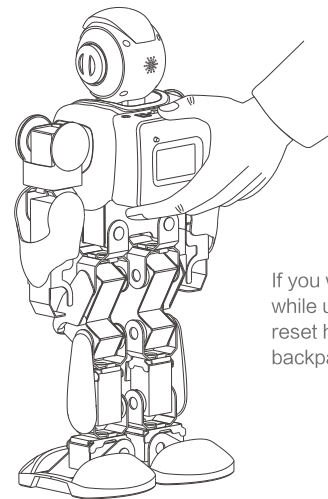


Front view



Side view

03 Chapter IV. Operating Alpha



If you wish to pick up Alpha while using him or you wish to reset him, please hold his backpack as to avoid damage.

! Note Before pressing "Reset/Start", please keep Alpha away from your face and eyes. In addition, do not insert your fingers or any objects into Alpha's joints. Please shut off the power immediately when he is not in his normal operating state. In addition, do not place Alpha on the edge of anything high as to prevent him from falling down and being damaged.

04 APP introduction: IOS version

APP Installation

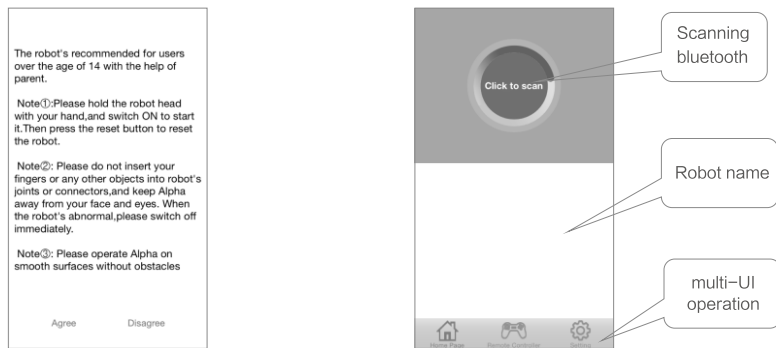
Enter the APP store in iphone/ipad and search "alpha1s", Then install this APP.

UI Introduction & Operation

1. APP UI

After installation,enable the bluetooth of your mobile device,click the alpha1S icon.It shows some important points.Choose "agree",then enter in the main UI.

If you choose"disagree",it will return from this APP.Pls take below screenshots as reference.



04 APP introduction: IOS version

2. Connect robot

a. Connect a single robot

Switch the power button to "ON". Click to scan the bluetooth device and find the robot you would like to connect in the list. Shown as right photo.

b. Connect multi-robots

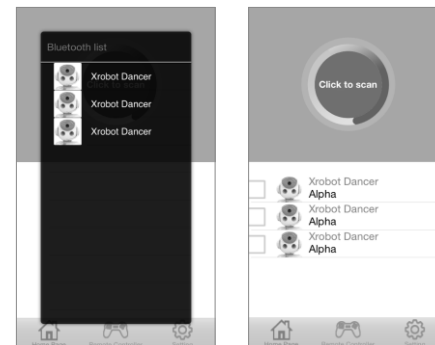
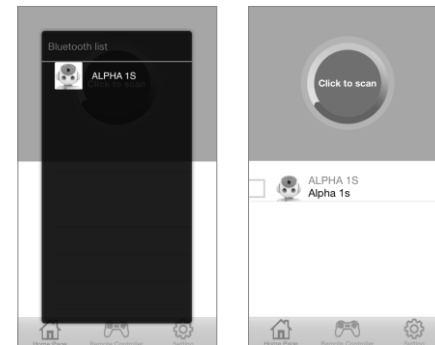
Switch all robots' power button to "ON". Click to scan the bluetooth device and click the robots you would like to connect one by one. Shown as right photo.

Attention:

1. If connected successfully, the robots' eyes will twinkle. If not connected, the robot eyes LED will be always on. If there is no SD card inside of robot, the eye LED will be off.

2. Theoretically, one IOS device can connect 7 robots at most. We suggest to connect 4-6 robots, which is most stable.

3. Pls make sure bluetooth is on when scanning. If you can find the robots in the scanning list, but cannot connect, pls turn off the bluetooth and turn on again.



04 APP introduction: IOS version

3. Rename the robot

In the robot name bar,pull the robot name to left,it will show below screen. Then click "modify name" to change the robot name.You can click" delete" to delete the robot which was connected.



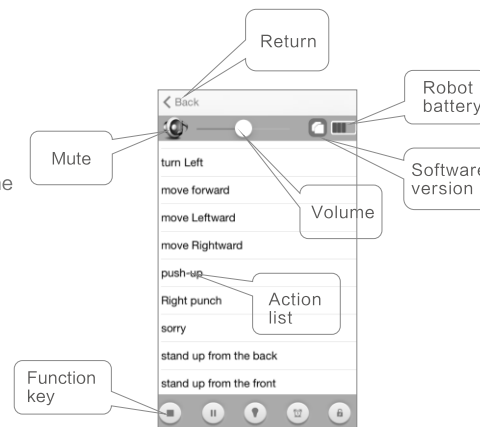
04 APP introduction: IOS version

Function Introduction


1.Main UI:action list

a.Control a single robot:

connect a single robot and click the robot name to enter the action list as right photo.




Keys functions introduction:

Stop: Click  the performing robot will stop action.Click the action name in the action list again,it will work again.


Suspend: Click  the performing robot will suspend.Click again,it will continue to work.

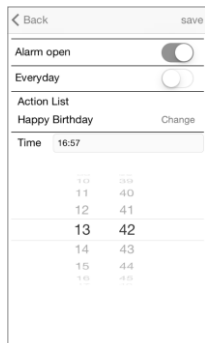
Close LED: When the robot is stopped or suspended,click  all the LED of servos will be off.

Urgent Power Off: When robots are abnormal or your finger was caught by robot, press  robot will stop and all servos will be loose.This button is only for urgent use.Pls do not use this function in normal condition.Or it will be harmful to robot.

04 APP introduction: IOS version

Alarm Clock:

Click  icon and enter the alarm clock setting UI. Click “change” and choose the music in the action list, set the alarm time and save it.



Attention: Alarm clock can not work under below conditions.

- Alarm clock is not on.
- Robot is power off.
- After setting the alarm clock, reboot the robot.

04 APP introduction: IOS version

b.Control multi-robots

Connect multi-robots and tick the robots which you want to control. Click any robot name and enter the action list. The operation method is same as operating a single robot.

Remark:

When controlling multi-robots, if the action lists in SD card are different, then what you can operate is their same actions.

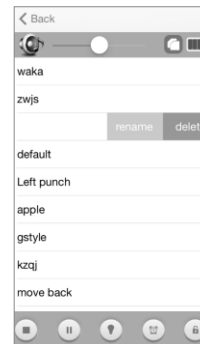
e.g. Click "Move forward", a robot has this action, b robot does not have and c robot has, then a and c robot will execute "Move forward" and b robot will not.

C、Action rename and delete

Pull the action name bar you want to rename to left, it will show "rename" and "delete".

Attention:

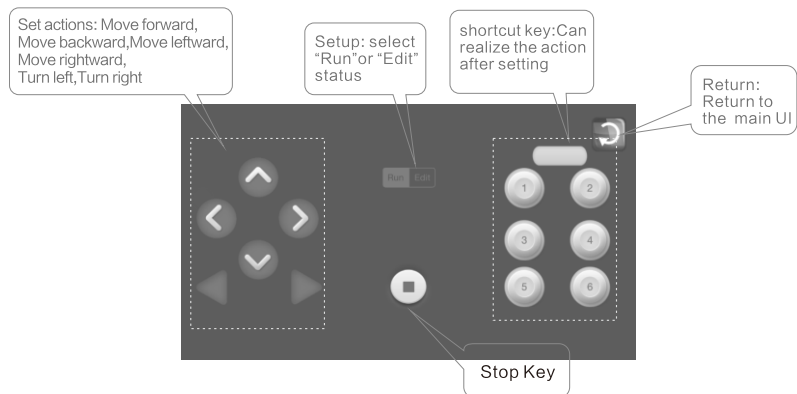
- When the action file is executing, you can not rename and delete.
- When the action is suspending, you also can be not rename and delete. It needs to be stopped or play other actions, then it can be edited.
- After rename, please check the action file in the alarm clock and the action list which is set in remote control. If they are the same action, then you need to modify in the alarm clock and remote control setting.





04 APP introduction: IOS version

2.Remote control UI:

When mobile device and robot connected, choose the robot you want to control. Then click "remote control" in the main UI of APP to enter remote control UI. This UI is mainly to help users to set robot's action setting.

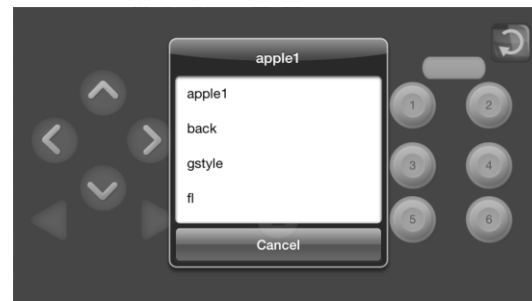


Functions and operation:

- a. **Stop:** click  the performing robot will stop action.
- b. **return:** click  return to main UI.

04 APP introduction: IOS version

C.remote control setup: pull the setup bar to edit, then the shortcut key will be editable. Click the icons, it will show as below photo. Choose the actions and pull it to Run.



3.System setup:

Click setup in the main UI to visit our website.

05 Android APP introduction

APP Installation

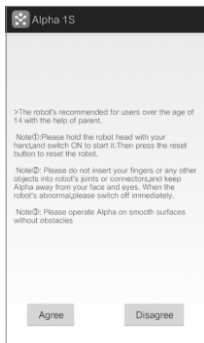
You can find search "Alpha1s" in google play store, or you also can download from www.ubtrobot.com. And install on your android phone or android devices.

Note: Pls make sure your android device's OS is android 4.0 or above.

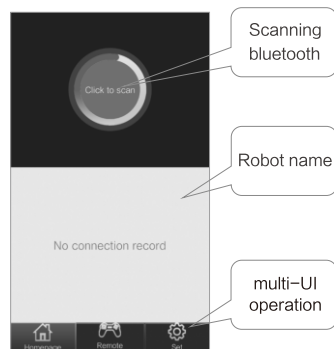
UI and operation introduction

1.APP UI:

After APP installation, it shows some important points. Choose "agree", then enter in the main UI. If you choose "disagree", it will return from this APP. Shown as below photo.



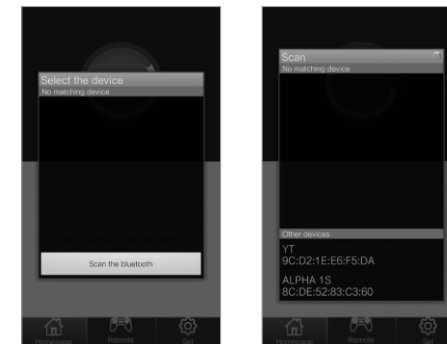
Before enter the main UI, it will indicate users to turn on bluetooth or not. Click "YES", App will turn on the bluetooth and enter the main UI, showed as below photo:



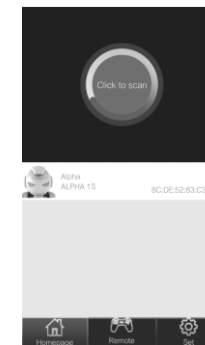
05 Android APP introduction

2.Connect robot

Turn the power button of robot to "ON", click "scan" in the APP UI and click "scan bluetooth", then in "other device" find "ALPHA 1S", and find the mac address of the robot you would like to connect. The mac address is written on the back of robot. Click the mac address and connect with robot.



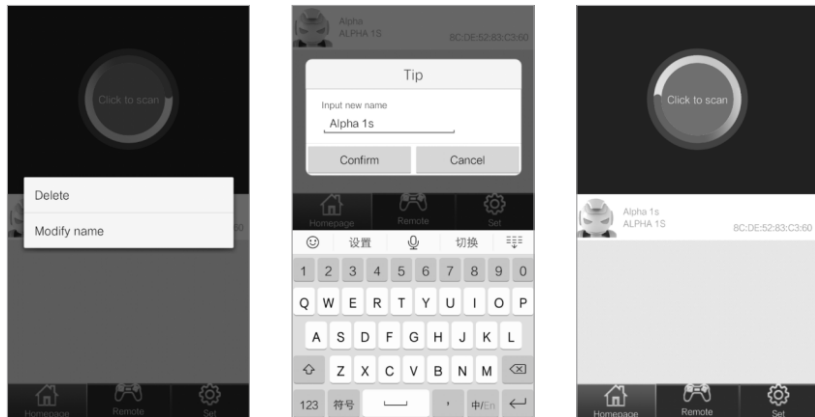
When robot connect with android device, the robot name and bluetooth mac address will be showed in red. If the APP connected with other robot before, it will show the previous robots name and mac address, just click those names and connect.



05 Android APP introduction

3. Rename the robot

In the robot name area, keep pressing the robot name, it show as below photo. You can click "Delete" to delete this robot name and click "modify name" to modify name.

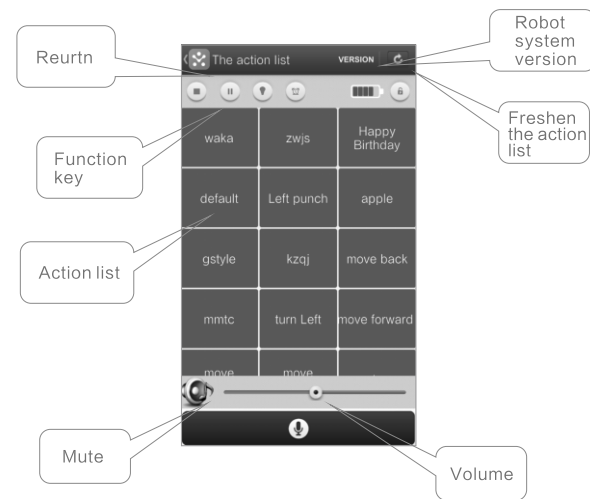


05 Android APP introduction

Functions Introduction


1. Action list

a. Action list UI : Click the red robot name and enter in below UI.



05 Android APP indtroduction


b.Functions


Stop: click  the performing robot will stop action.Click the action name in the action list again, it will work again.

Suspend: click  the performaing robot will suspend.Click again,it will continue to work.

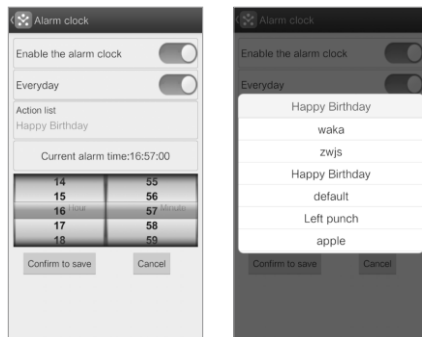
Close LED: When the robot is stopped or suspended,click  all the LED of servos will be off.

Power: It shows how much power robot can use. It does not show power capacity when charging.

Urgent power cut off: When robots are abnormal or your finger was caught by robot, press  robot will stop and all servos will be loose.This button is only for urgent use. Pls do not use it under non-immergency status, or it will hurt the robot.

Alarm clock: click  enter the alarm clock setup UI. Choose the music and action in the action list. Set up the alarm time and save it.

- Attention:
Alarm clock can not work under below conditions:
- Alarm clock is not on.
 - Robot is power off.
 - After setting the alarm clock, reboot the robot.



05 Android APP indtroduction

c. Actions rename and delete

In the action list,keep pressing one action name,it will show "rename" and "delete" to rename or delete the action.

Attention:

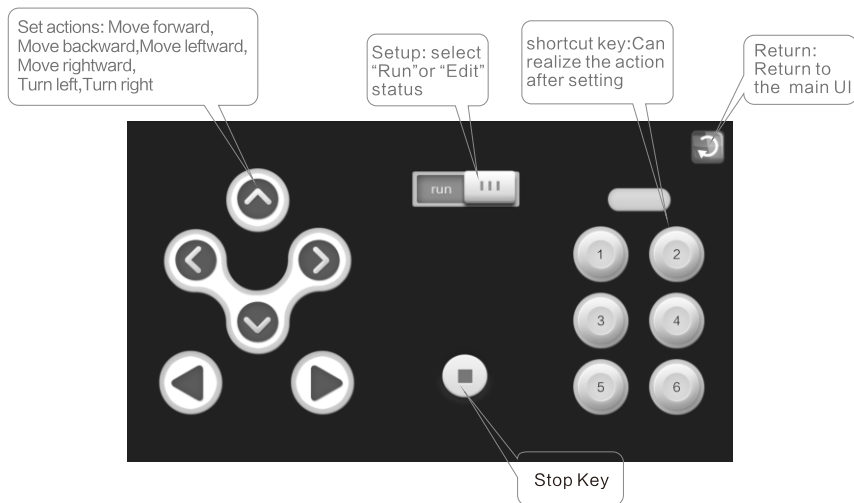
- When the action file is executing, you can not rename and delete.
- When the action is suspending, you also can be not rename and delete.It need to be stopped or play other actions, then it can be edited.
- After rename, pls check the action file in the alarm clock and the action list which is set in remote control. If they are the same action, then you need to modify in the alarm clock and remote control setting.



05 Android APP indtroduction



2.Remote control UI

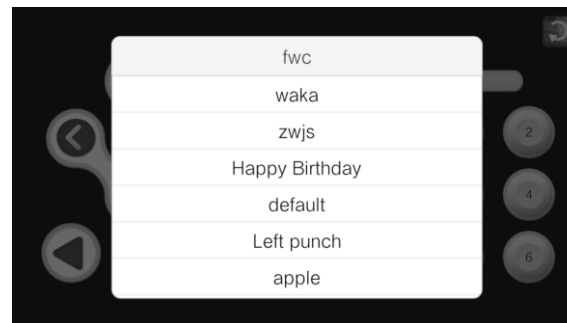
When android device connected with robot, click"remote control" and enter remote control UI. Showed as below



05 Android APP indtroduction

Function and operation:

- 1.Stop:** click  the performing robot will stop action.
- 2.Return:** click  return to main UI.
- 3.Setup:** pull the icon to "run",the shortcut buttons can be set. Click the button and show as below, select the action or performance and pull the set icon to "edit".



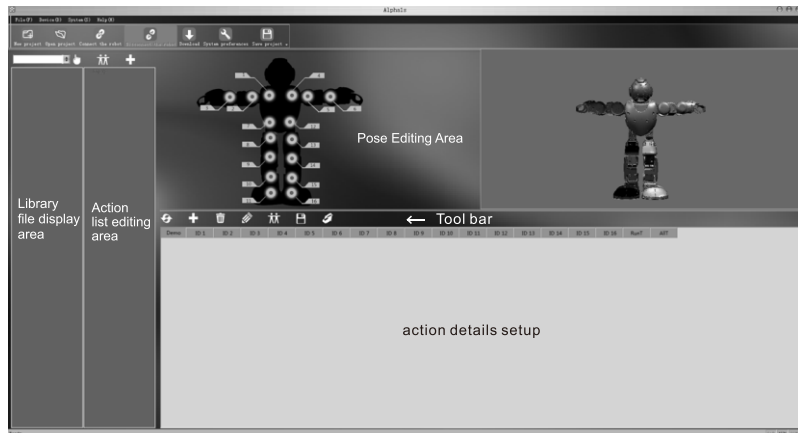
3.Setup

Click Setup in main UI to visit our website www.ubtrobot.com

06 PC Software Description

Software Interface and Operation

The software interface as below: the following is document, equipment and other submenus. The interface contains the library file area, action list editing area, pose editing area, 3D preview and action frame editing area etc.



06 PC Software Description

Menu Bar

File

Create:-----Create a new blank action list in action list editing area.

Open:-----Open a edited tab action list in the tree branching area.

Save:-----The action list will be saved to the user selected folder at the first click, and saved to the previous saved action list when you click again. (there has a tmp folder for saving action list in the software).

Save as:-----Save the edited action list as a new action list.

Exit:-----Exit from the operating software.

Equipment

Connect robot:-----Connect the robot to your computer.

When you complete the driver installation on your computer, switch on the robot, and then connect the robot to the computer via USB cable. Open the software, the software will automatically identify the port and connect to the robot. When connected, the menu bar "Connect robot" button turns yellow.

Disconnect:-----Click on the menu bar "Disconnect" or unplug the USB cable to disconnect the robot to the software.

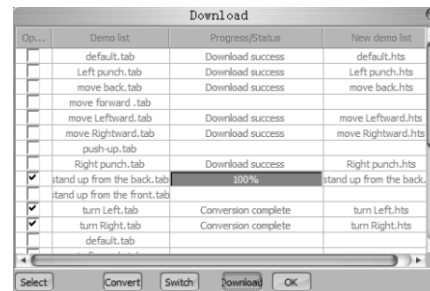
06 PC Software Description

Download the action list:-----Convert the edited action list into recognized format, and download it to SD card of robot.

Click on the menu bar "equipment" to download the action list, or click on the shortcut menu "Download", there will pop up a download prompt box. Next, click on "Select" to pop up a prompt box in which you can choose the action list, and check the action list that you need to convert and download. Then you need to click on "Convert" to convert the action list into a recognized file format. Finally, Click on "Download" to download the action list to the action folder in the robot SD card.



06 PC Software Description



After the action list is downloaded to the SD card, click on "Switch" to switch the robot into a U disk, so you can copy the corresponding mp3 files into the music folder of the SD card. When you have completed all of the above, please double-click on the "RESET" button at the back of the robot, so the robot can be reverted to the state of connecting with the computer.

System System Settings:-----Click on "System Settings" in the drop-down or shortcut menu, there will pop up a prompt box of language settings, as shown below, you can choose the language type. It take effect after you restart the software.

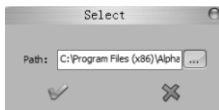


06 PC Software Description

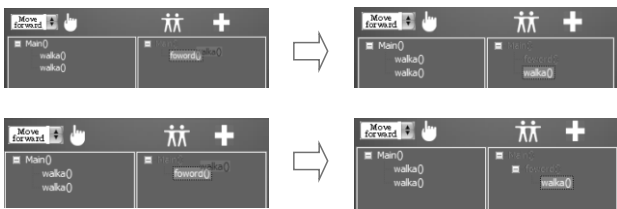
Library file display area

Library file **Library file:** the edited action list which has been saved in the action library. The edited action list in the action library can be listed in library file area, it has two main functions: import file and invoke function. A series of edited actions can form an action library file, and there already have some common action library files in the software, such as move forward, move backward, turn left, turn right ect.

Import file Click on toolbar to pop up a prompt box of select as shown, select the folder where the file you need to invoke inside, and set tmp folder path in the software as default, then select the file you need in . Once the file was imported from library file area, it would default to inalterable.



Invoke function When you invoke library file at the process of editing in action list editing area, you need to import the invoked file to library file area. Then you can drag the invoked file or its subfunction to the selected location in action list editing area with your mouse. (If the function of the selected location has its content, drag the invoked file or its subfunction into the below of the location. If not, drag it as the subfunction, like creating or inserting a branch) As shown below:



06 PC Software Description

Action list editing area

Tree branch structure: A series of action frames can form a subfunction, and the subfunction can be a tree branch structure of the editing action list. Tree branch is the part of the editing action list, and the robot can do many different actions as you wish by editing action frame of tree branch.

Insert: Click on toolbar at the top of the action list editing area or right-click "Insert" within the action list editing area, there will pop up a prompt box of adding function, import the name in there. If there already have functions in action list editing area, the new function would be inserted into the below of the existing function. If not, it will be inserted automatically as its subfunction. (Note: The name of function can only be composed of letters, numbers and other symbols.)

Delete: Select the function you want to delete with your mouse, right-click "Delete" to delete the function.

Copy & Paste: Select the function to be copied, right-click "Copy", then the function can be pasted to the position on demand by right clicking "Paste". If there already have functions in action list editing area, the function would be inserted by copying and pasting. If not, it will be inserted automatically as its subfunction.



Up & Down: Select the function with your mouse, right click "Up" & "Down" to move up or down.

Simulate: Click on toolbar on the top of the action list editing area, the robot can simulate the actions in accordance with the order of functions in the action list editing area.

06 PC Software Description

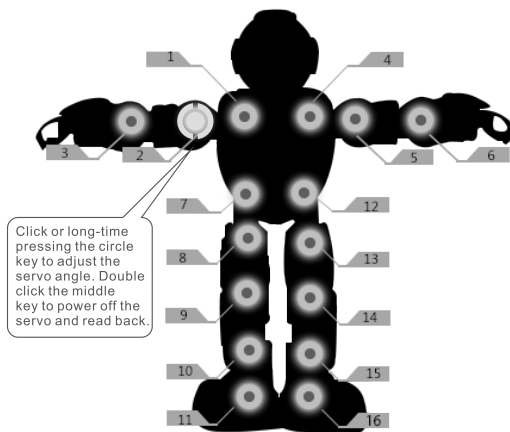
Pose Editing Area

Two functions:

1. Two modes for action editing, one is editing for each joint, another is editing in the way of read back. Normally, we'd better choose to edit in the way of read back, which is more convenient. (The following will explain in details) Editing for each joint is suitable for readjustment after read-back editing.

2. Small tweaks to the robot pose. For example, while a frame of action edited in action frame editing area have some small deviation with desired pose, it can be solved with a small tweak in the pose editing area.

In pose editing area, each joint of the virtual robot has its own number, corresponding to each joint of actual robot. When the mouse stay in a joint, it will show you the angle adjusting button for robot's joint. You can click on the button to adjust the angle of robot's joint. If keep clicking on the button, it can adjust to the maximum or minimum value of angle. As shown right:



06 PC Software Description

3D Preview

You can preview edited actions. Click or double-click any frame of action in action frame editing area, the virtual robot will display the corresponding pose. You can rotate the robot by left clicking, and preview the 3D robot in different single by right clicking in 3D preview area.

Action Frame Editing Area

Action frame editing area is use for editing robot's actions, and continuous simulation can form a series of dance moves.

	ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7	ID 8	ID 9	ID 10	ID 11	ID 12	ID 13	ID 14	ID 15	ID 16	RunT	AFT
[1]	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	500	800
[2]	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	500	800
[3]	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	500	800
[4]	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	500	800
[5]	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	500	800

Action frame editing area includes toolbar, servomotor number, time zone and action frame zone.

1. Toolbar: from left to right: reset, insert, delete, revise, simulate, save, power-off/read back.

Reset: After connect the robot to computer, click on to reset the robot.


Insert: a. If without a action frame in action frame editing area, click on to insert a series of action frame values corresponding to reset state.

b. If there already have action frames in action frame editing area, click on "Insert" to insert a series of action frame values corresponding to reset state at the bottom of the selected location.

c. When using power-off/read-back to edit actions, click on "Insert" to insert a series of action frame values of read-back at the bottom of the selected location.


PC Software Description

Delete: Select the number in front of a frame or a few frames, click on  to delete the frame.

Revise: Select the number in front of a frame, you can adjust the pose of the robot, or click on  to revise to the frame values of current state.

Simulate: Click on  to simulate the actions in action frame editing area.

Save: Click on  to save a series of actions to corresponding tree branch.

Power-off/Read-back: a. When the robot servomotors are in a charged state, each joint of the robot is locked up and cannot touch, click on  then the servomotors turn into power-off state, and each joint of the robot can move. When you adjust the robot to a state you like, click on the button again to read and record the action frame values. You can insert the values to the location you want or replace one another action frame values when clicking on shortcut key "Insert" or "Revise".

b. Power-off/Read-back can also be achieved in another way. When you adjust the angle of a servomotor in the pose editing area, double-click on the button in the middle of the arc buttons, the servomotors will be in power-off state, and double-click on the button again can read back the action frame values of the servomotor. Repeat the above steps, you can read back multi action frame values effectively.

2. Servomotor Number: ID 1–16 are the numbers of the robot servomotors, which are corresponding with joint numbers of the robot in the pose editing area.

3. Time Zone: It includes RunT and AllT, RunT represents the required time from one frame to another frame action, and AllT represents the sum of the required time from one frame complete to another frame start and RunT. In the process of editing actions, you can adjust the corresponding time according to the rhythm of the music. (Note: ALLT>=RUNT is valid)

4. Action Frame Zone: The values in this zone is the action frame values of the servomotor in a state, it shows the corresponding values of the robot No.1–16 servomotors, and you can manually input the value of 0–180 to adjust the value of a frame or joint. Click to select a frame, 3D preview can show the pose of the action frame; double-click to select a frame, the robot will make the action immediately.

PC Software Description

How to edit a complete dance :

1. Double click "Alpha 1S" icon to open the software.
2. Input the cable into the USB interface of the robot, and switch on the robot.
3. The robot connect to the computer automatically.
4. Press the "RESET" button or click on the "RESET" shortcut key in the action frame editing area to change the robot into reset state.
5. Create a new branch in the action list editing area refer to the steps above.
6. Click on the new tree branch to edit.
7. Click on "Power-off/Read-back" shortcut key in the action frame editing area, the robot will be in the power-off state, while you can adjust the robot to the pose you like within the realm of possibility. Click on "Power-off/Read-back" again, the software will read and record the current action frame values of the robot, then you can click on "Insert" shortcut key to write the values into the action frame area, it can be form a new action frame.
8. Adjust the RunT and AllT according to the rhythm of the music.
9. Click on "Save" in the action frame editing area to save the action frames to a new tree branch.
10. Following the steps above to edit multi action frames with "Insert" function, and save to the tree branch. In the process, you can revise and delete the action frame values by click on "Revise" & "Delete", and adjust each action in the pose editing area to ideal pose.
11. Click on the shortcut key "Simulate" in the action frame editing area, the robot can simulate the actions in accordance with the order of functions in the action list editing area.
12. To make it easier for reuse and revise of the action frame values, you'd better put all the action frames of a complete action into a branch, and a lot of branches can be form a complete dance. If you need to use a library file in the function library of software, you can drag the file or subfunction to the action list editing area by following the steps above.
13. Click on the shortcut key "Simulate" in the action list editing area to simulate all the action frame values in the order, and to check if the actions matches music.
14. If the whole actions meets your requirements, save the edited action list to corresponding file.

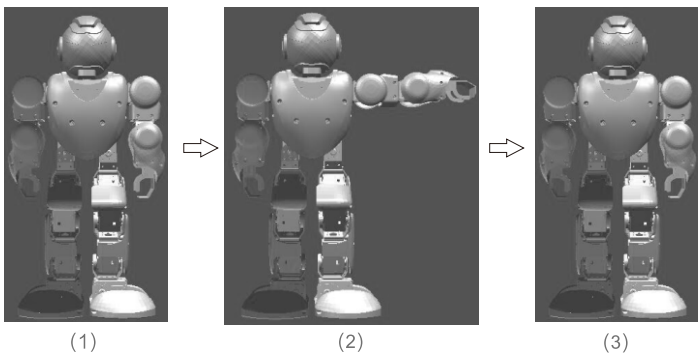
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15. Download the action list to robot SD card by following the steps above. Then switch the robot into a U disk through the "Switch" function, so you can copy the audio files to the music file.

(Note: the name of action list must be the same with the audio file, or the music cannot play.)

16. Connect the APP software in your mobile phone to the robot, remote control the robot to play the action list.

Edit an action following the steps above, as shown below:



1. Take the steps 1-6, create a new branch named "Hands up"

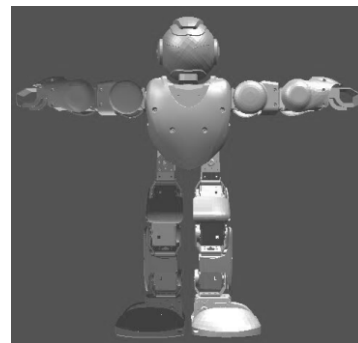
2. Two ways to edit action:

a. Edit in the pose editing area directly

Start in reset state as image 1, the robot need to do three actions: put down arms, raise left arm and put down left arm. No.5 servomotor control the robot to raise/down the left arm, and also can increase/decrease the value of the action frame; No.2 servomotor control the robot

06 PC Software Description

to raise/down the right arm, and also can increase/decrease the value of the action frame. When the No.5 servomotor increasing to 180 degrees and the No.2 decreasing to 0 degree, the value of the inserted action frame will be the same as the chart 2, and the robot will display the action as image 1.



(1)



动作号	ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7	ID 8	ID 9	ID 10	ID 11	ID 12	ID 13	ID 14	ID 15	ID 16	RunT	AIT
11	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	500	800

(2)

Take the steps above, add the values of the action 2 and 3 to the below of the first and second action frames respectively, and click on "Save" in the action frame editing area to save the action frame to "Hands up".

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b. Edit by using "Power-off/Read-back" function

Click on  the servomotors stay in power-off state, you can adjust the robot to the pose of image 1. Click on the button again, the software can read and record the values of action frame, then click on  to insert the values into action frame editing area.(Or double click the middle button to power off/read back.)

Take the steps above, add the values of the action 2 and 3 to the below of the first and second action frames respectively, and click on "Save" in the action frame editing area to save the action frame to "Hands up".

A complete values of a action frame by the above two ways as shown chart 3:

动作号	ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7	ID 8	ID 9	ID 10	ID 11	ID 12	ID 13	ID 14	ID 15	RunT	AIT
[1]	90	90	90	90	180	90	90	60	76	110	90	90	120	104	70	90	800
[2]	90	90	90	90	90	90	90	60	76	110	90	90	120	104	70	90	800
[3]	90	90	90	90	180	90	90	60	76	110	90	90	120	104	70	90	800

(3)

3. The following steps can be done gradually refer to the above steps 11-16.

Remind:


- 1.After changing the language settings, you need to restart the software.
- 2.The name of branch inserted in action list editing area cannot be chinese or japanese, it can only be composed of letters, numbers and other symbols.
- 3.When you save the whole action list, the name of the action list must be consistent with the name of audio file, or there will be no music during performance.

07 Executing the Program

Downloading

After editing an action, you must first save it. Then, select "Download to Main File" in the "Action" drop-down menu. "Download Completed" will pop up when the download is complete.

When the download is complete, first turn off the power. Then, unplug the download USB cable. To restart, press "Reset/Start", and Alpha will enter reset mode. Next, press the button again, and Alpha will run the program that was just downloaded.

 **Note** Before pressing "Reset/Start", use caution as to avoid being pinched by Alpha's joints. Please keep your face and eyes away from him and avoid personal injury when executing his actions. In addition, do not place Alpha on any high surface edges (such as the top of a desk) to prevent him from falling down and being damaged.

08 Troubleshooting

Problem 1: The control software does not run normally.

Reason 1. The software-driven environment is not installed properly. Please insert CD to reinstall software and software-driven environment .NET Framework 3.5.

Reason 2. There is a computer system error. Please restart your computer.

Problem 2: When starting Alpha, the connection to the computer is abnormal.

Reason 1. Alpha is missing a CP210X driver. Please insert CD to re-install the appropriate driver.

Reason 2. Alpha's download cable interface is poorly connected. Please re-insert or change the USB cable.

Problem 3: Alpha cannot reset after being started.

Reason 1. The voltage of the battery is low. Please charge it.

Reason 2. Some of the servo cables are loose or have short-circuited. Please check whether servo cables are properly connected or still functional.

Problem 4: When the robot is reset, some of the joints cannot work?

Reason 1. Some of servo wires are loose or short-circuit, check whether the servo cables are properly connected or still functional.

08 Troubleshooting

Problem 5: When Alpha is connected to a computer, he cannot be controlled or cannot download programs.

Reason 1. Alpha's download cable interface is poorly connected. Please re-insert or replace the USB cable.

Reason 2. Alpha's program has crashed. Please restart the robot and download again.

Reason 3. The battery voltage is low. Please charge it.

Problem 6: After downloading a program, Alpha does not work properly.

Reason 1. The battery voltage is low. Please charge it.

Reason 2. Some of servo cables are loose or have short-circuited. Check whether the servo cables are properly connected or still functional.

Reason 3. There is a problem with the program's syntax.

Problem 7: The smart phone cannot control the robot.

Reason 1. Check your smart phone is normal or not.

Reason 2. Connect the robot again.

8. Smart phone cannot connect with robot

Reason 1: Robot is not powered on

Reason 2. There are several robots. The smart phone connected with other robots.

Please the mac address of your robot and the robot which was connect

Reason 3. Distance is too far.

Problem 9: Alpha's dance is unstable.

Reason 1. The offset value of the servo joints was not set. Please refer to "Chapter VIII.

Action Calibration" on how to set the offset value.

Reason 2. There is not enough power.

Reason 3. The servo is aging and needs to be replaced. Servos are consumables and are worn down over time. The gap between gears will increase with age. Therefore, the servos need to be replaced.

Problem 10: Cannot enter the action list UI when connected robot

Reason 1. There is no SD card inside of the robot

Reason 2. SD card is experiencing contact failure.

Reason 3. There is a problem with the servo cables.



Warranty Card

www.ubtrobot.com

Customer information

Product model

Product series no.

Consumer name

Date of purchase

Contact

Customer information

Warranty date	Description of failure and resolution method	Completion date	Consumer signature

National customer service line: 86-755-83474428



Warranty terms

- I. Please carefully fill out this card when purchasing Alpha. Read the following warranty terms carefully to ensure the product warranty is effective.
 1. Please keep this card in a safe place when purchasing products, and ask for the seller's stamp for confirmation.
 2. The warranty card is required when requesting service repairs.
 3. Please ensure that the warranty card information is true; otherwise, it is invalid.
 4. Product warranty period is one year (except for consumables such as servo, battery, and cable). Consumers have the right to receive free repair service within one year from the purchase date in case of product failure. However, if the product failure occurs due to a natural disaster or by the fault of the consumer, free repair service will not apply even within the one year and the consumer will be charged an appropriate repair service fee.
- II. Consumers will be charged for the services rendered even within the one-year period under the following circumstances.
 1. Failure caused by not following product instructions.
 2. Failure due to mishandling by the consumer including, but not limited to:
 - Failure due to erratic power or faulty power supply;
 - Failure due to foreign matter inside the product;
 - Failure or damage due to external shock or from being dropped;
 - Damage or loose parts due to disassembly by the consumer;
 - External damage or deformity caused by corrosive liquid, paints, thinners, benzene, and etc.
 - Any other failure caused by an external event or mishandling by the consumer and not by the defect in the product;
 - Failure due to a natural disaster;
 - Exchange of normal consumable parts, such as the battery.
 3. Failure caused by service not approved by the company, product modification, or broken product seal.
 4. Aging, dents, or scratches on the surface of the product.
- III. When the warranty period expires, the Company will still provide repair service, subject to an appropriate fee.



FCC Information and Copyright

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,

uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference

to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is

encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

15.19 Labelling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF warning statement: the device has been evaluated to meet general RF exposure requirement , The device can be used in portable exposure condition without restriction.