



Figure 1

**synopsis**

WuLi Bot is a miniature desktop robot that combines a variety of interesting ways to play, it uses a micro processor like Arduino and designed by two kinds of Arduino Scratch programming with convenient, easy to understand. WuLi Bot is an Educational kit for beginners to learn the knowledge of the STEAM (Science, Technology, Engineering, Art, Mathematics) field, and can let you into a different world of programming.

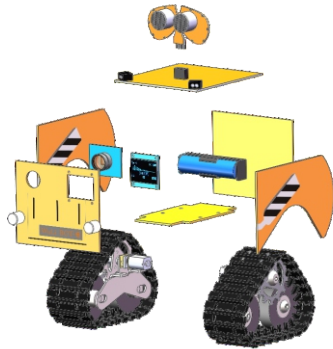


Figure 2  
Exploding diagram

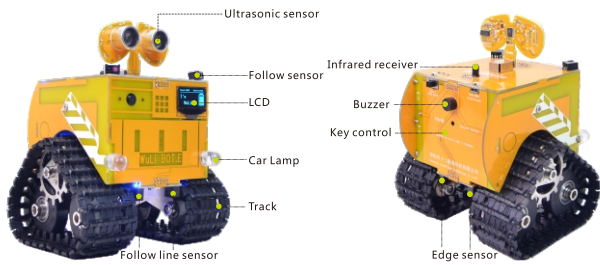


Figure 3

**Remote control method**

**Method 1: Smart phone**

Figure 4



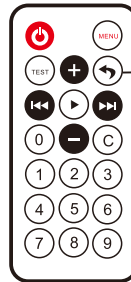
Key control



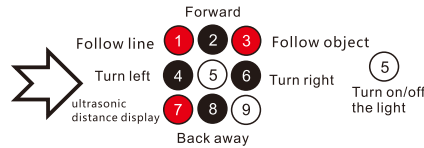
Gravity induction control

**Method 2: Infrared remote control**

Figure 5



Return to manual control



**XRScratch graphical programming software**



**XRScratch introduction**

XRScratch is a graphical programming software based on Scratch that not only inherits all the feature of Scratch but also adds many script blocks that interact with the hardware so that users no longer have to write obscure C language code, and can easily drag the script module to read the sensor value and control the output of the motor, lantern, etc., to achieve a rapid programming of a robot.



Documents download

**Basic remote control use steps**

Turn on the power switch of WuLiBot, the robot will play the music for 10 seconds and display the welcome pattern on the LCD

[WiFi mode]

1. Open the system setting of the mobile phone-WLAN, Search for wireless signals at the beginning of the 'wifi-robots.com'
2. Open the Xiao R technology control software APP, you can wireless remote control.

[Infrared mode]

Use XRScratch graphical programming software to download Lesson 18 programs to WuLiBot for control the robot by using an infrared remote control.

**Download download and charger**

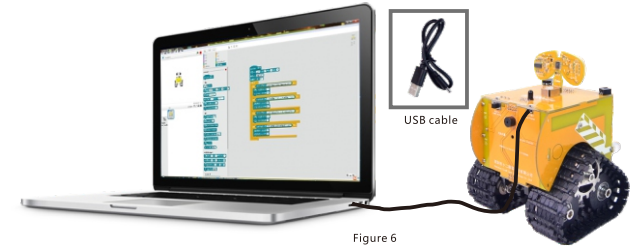


Figure 6

WuLi Bot uses USB cable to achieve program download or charge, when the robot is in charging, the LED on the USB side lights up red, when blue light up, it means that the charging is done. The charging voltage is 5V, and you can use the computer USB interface or other mobile charger to charge the robot.

**Notes :**

1. When the speed of product is found to be slow and the lights flicker, please recharge the product in time.
2. Infrared obstacle avoidance sensors and patrol sensor are easy to be disturbed by infrared, and may fail under strong light.
3. The direction of ultrasonic installation should be installed according to the instructions. The direction of the two cylinders should be consistent with the front of the car, or it may damage the ultrasound.
4. When use infra-red remote control, if the key does not work, please align the remote control receiver, or replace the remote control battery.
5. In the state of electricity, do not touch the circuit boards and components by using the conductive material, otherwise it will cause a short circuit.
6. Products have small parts, beware of children eating.
7. Please use the lithium battery, please pay attention to the positive and negative battery installation, or it may be a fire, explosion.
8. Do not short-circuit, disassemble, destroy, causing severe impact on the battery or put into the fire, otherwise dangerous situations may happen!

**FCC WARNING**

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

NOTE: 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.  
 To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.  
 FCC ID:2AI8A-WULIBOT