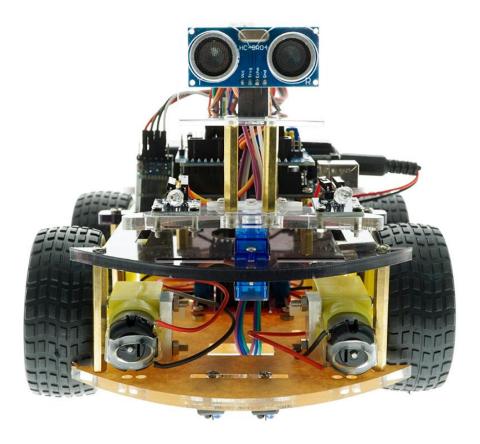


# UNO R3 Bluetooth Multi-Function Smart Robot Car

#### **1. Product Introduction:**

The UNO R3 Bluetooth Smart Robot Car is a learning and application development system based on UNO R3 single chip microcomputer ATmega-328 as the core, with functions such as tracking, obstacle avoidance, infrared remote control and remote Bluetooth. The kit contains a number of interesting programs that can extend external circuit modules to enhance the fun of developing MCU systems and away from the boring theory of learning UNO R3 MCU.





## 2. Product list:







#### 3. Product Performance Parameters

(1). Motor parameters: Voltage range: 6-9v, the reduction ratio: 48:1.

(2). Motor control adopts the L298N drive module to achieve isolation from MCU.

(3). Three infrared tracking sensors combined with three-way tracking module, to detect black and white lines with higher accuracy and can also be used to control drop.

(4). Infrared remote control module to make intelligent vehicle control system.

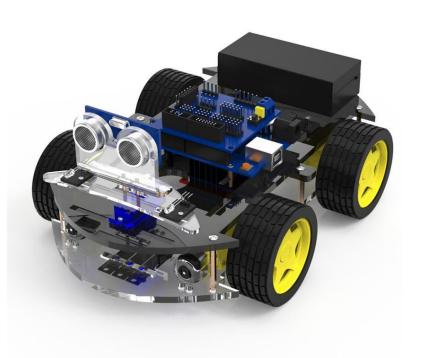
(5). Ultrasonic module is applied on vehicle obstacle avoidance system.

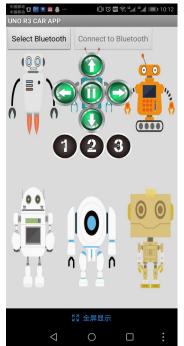
(6). Seven-color LED module combination indicates signal light of intelligent vehicle driving, tracking, obstacle avoidance control.

(7). Bluetooth wireless module can match Android mobile phone Bluetooth remote control smart car.

(8). Programming our latest Bluetooth integrated mode code, which can realize switching among obstacle avoidance mode, track mode and music mode by control of Bluetooth APP and infrared remote simultaneously.

(9). It can access to external voltage of 7-12V. At the same time, we have reserved some I/O interfaces for to carry various sensor modules, implementing various functions according to your imagination.



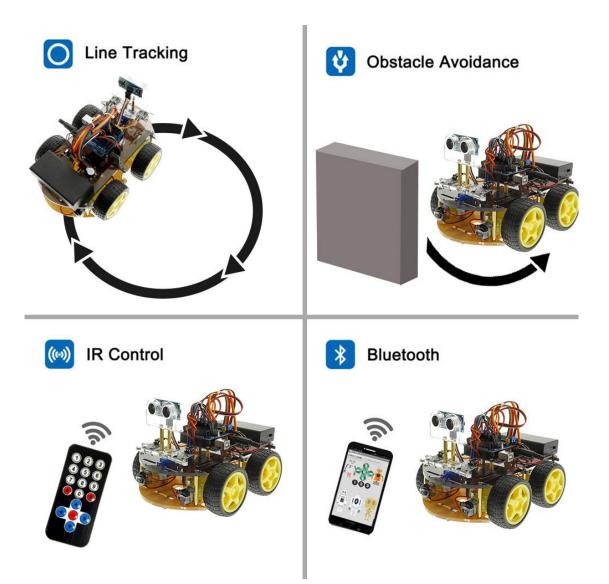




#### **Function Mode:**

- 1. Self-developed Bluetooth APP control
- 2. Ultrasonic avoidance obstacle mode car
- 3. Infrared tracking mode car
- 4. Infrared remote control mode car
- 5. Bluetooth APP control mode car

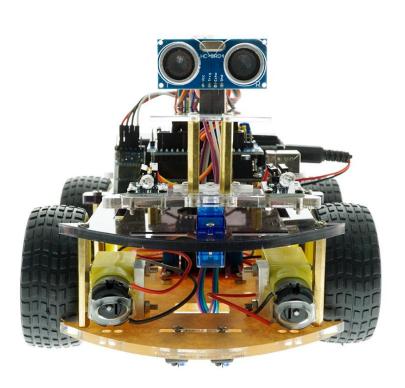
Five in one (infrared tracking, ultrasonic obstacle avoidance, music mode, infrared remote control, Bluetooth remote control) multi-function program

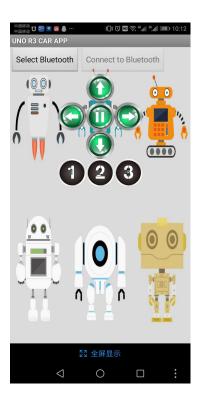




#### **Bluetooth control mode:**

Open UNO R3 CAR APP to connect HC-05 Bluetooth module. After connected to Bluetooth , you can freely control our car through your mobile phone. When we press the number of "1", smart car into the tracking mode. Press the number of "2", smart car starts the obstacle avoidance mode. Press the number of "3", it can realize music mode and also support infrared remote control.

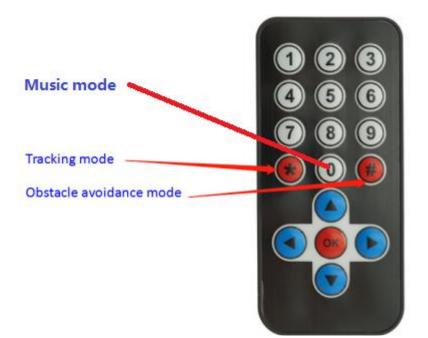


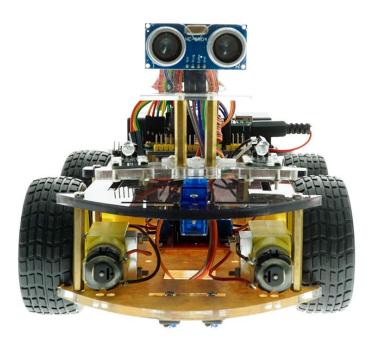




#### Infrared control mode:

Our smart car also can be controlled by infrared remote. The "\*" button represents tracking mode. The "#" button can realize obstacle avoidance mode, and the "0" button controls car music mode.







#### **Obstacle control mode:**

At night, this smart car will turn on its colorful LED to achieve a stunning effect when it is in the obstacle avoidance mode.

When Smart car detects there's equal distance between left and right side from the obstacle in front, on-board seven-color LED start blinking and buzzer sounds at the same time. When the car senses obstacle on left side, it will turn on its right side LED and turn to the right. When the car detects obstacle on right side, it will turn on the left side of LED and turns to the left.





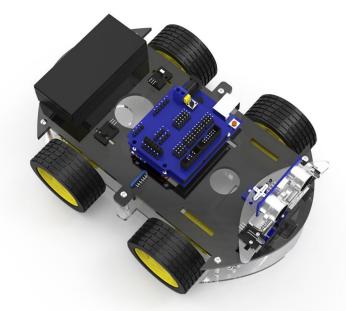
### Tracking mode:

When smart car detects that there is a black line on the left, the seven-color LED on the car will flash quickly, which plays an indicating role and also realizes the function of detecting whether the module is normal.



### Music mode:

When the music mode is on, active buzzer carried by the car will sound the music sound of "twinkle, twinkle, little star".(Note: Regarding the music mode, you can modify different music in the code according to your needs.)





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