

DIY Mobile Robot Kit

(Bluetooth Android Version)

Introduction

This 2WD mobile robot Arduino Bluetooth kit includes all the hardware and software components that enables you to control your robot using your android cell phone. We made this kit as an entrance level into the interactive control of robots using Android mobile. Once you grab the basic skills you can apply it to any robotic system efficiently.



Things you need

- Mobile Robot Kit (Bluetooth Android Version) ([Get it](#))
- Power Supply (6v/12v Battery) ([Get it](#))
- Arduino Software (IDE) ([Download it](#))
- Arduino Code ([Download it](#))
- Android Mobile
- Android Application ([Download it](#))

Upload the code to your Arduino.

1- Connect your Arduino using the USB cable.

The square end of the USB cable connects to your Arduino and the flat end connects to a USB port on your computer.

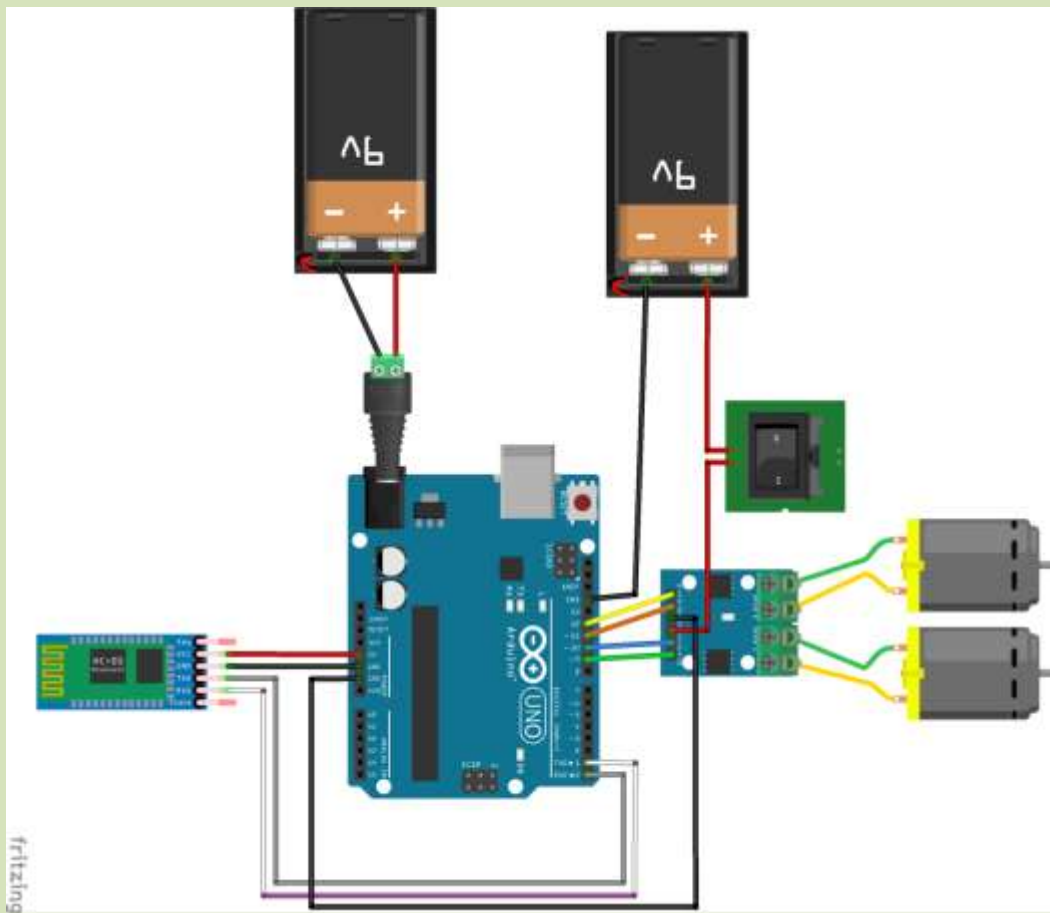
2- Open the Code file.

3- Choose Tools→Board→Arduino Uno to find your board in the Arduino menu.

4- Choose Tools→ Port →Correct serial port.

5- Click the Upload button.

Schematic

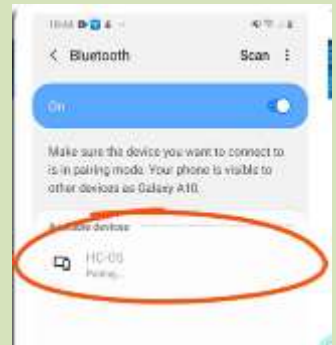


Make the above-mentioned connection. Only very few connections are there, it will be simple.

- Connect **TX** of Bluetooth goes to **RX** of Arduino and **RX** of Bluetooth to **TX** of Arduino.
- Connect **GND** of Bluetooth goes to **GND** of Arduino and **VCC** of Bluetooth to **5V** of Arduino.
- Connect pins **9, 10, 11, 12** of Arduino to **1B, 1A, 2B, 2A** of Motor Driver respectively and **GND** of Arduino to **GND** of Motor Driver.
- Connect **VCC** of Motor Driver to **6v:12v power supply** and **GND** of power supply to **GND** of Arduino .
- Power the Arduino using the **9v Battery**.

Pairing the Bluetooth Module

- Turn ON Bluetooth Module.
- Search for available Bluetooth device on your smartphone.
- Select HC-05, the default pairing pin code with 1234.
- Once it's paired the blinking pattern of the Bluetooth module will change.



Android Application

- Download and install “[Arduino Bluetooth RC Car](#)” from Playstore.
- Select the Setting icon and click connect to car.
- Select the HC-05 from the list, If the connection is successful you will see a green circle at the top left corner.



try to enjoy!