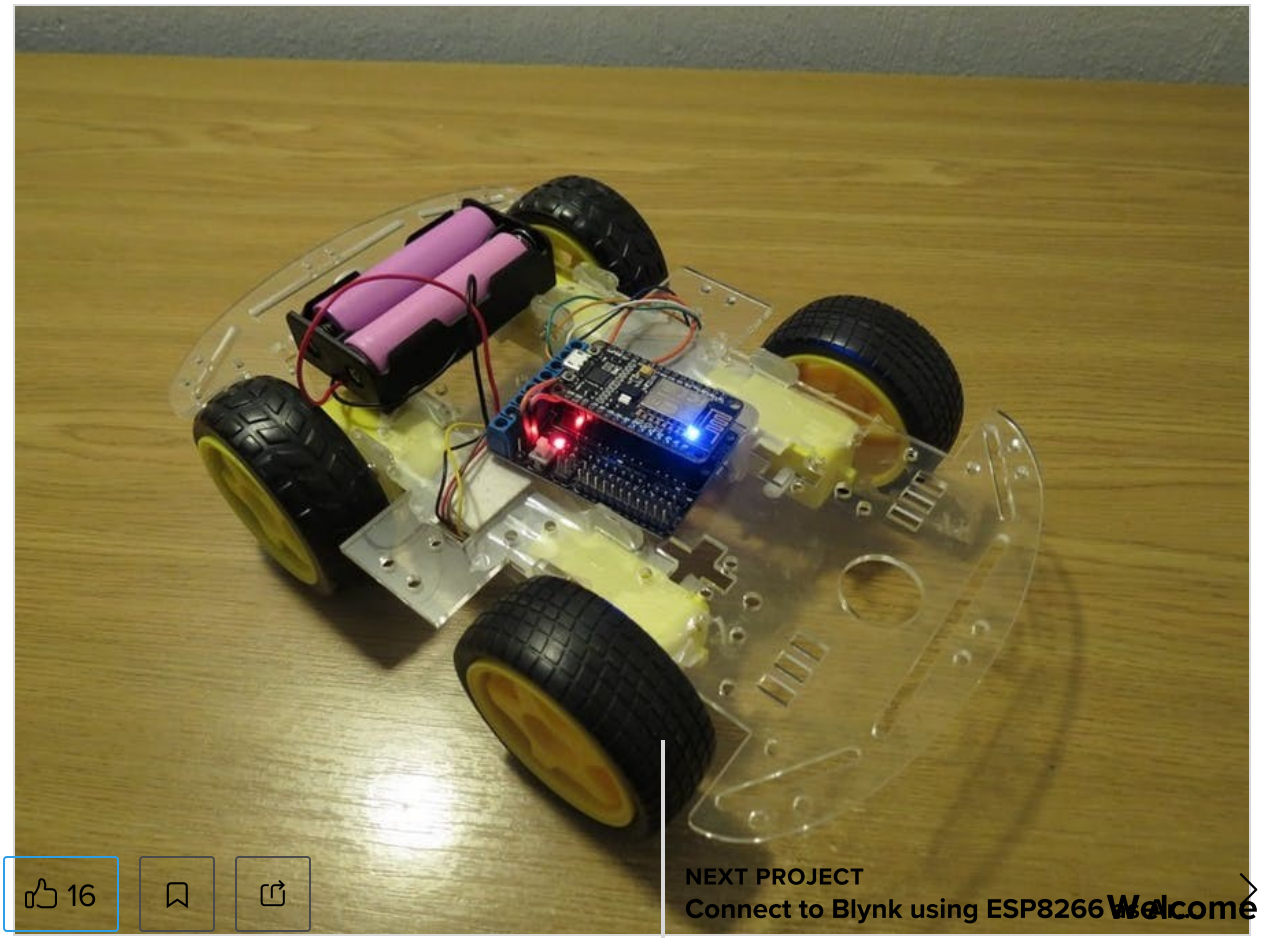
Andrewf1 (/andrewf1)
Published December 24, 2017

Simplest wifi car using ESP8266 Motorshield

Simplest wifi car controlled by your smartphone using NodeMcu esp8266 and Blynk.

Easy(/projects?difficulty=beginner) Full instructions provided 2 hours 5,729



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Things used in this project

Hardware components

NodeMcu Lua ESP8266 ESP-12E + WiFi Motor Drive Expansion Board	× 1	(/products/buy/265192?s=BAhJIhY2NTg4OS5xCYXNlQXJ0aWNsZQY6BkV
DIY 4WD Smart Robot Car Chassis Kit	× 1	(/products/buy/265202?s=BAhJIhY2NTg4OS5xCYXNlQXJ0aWNsZQY6BkV
2PCS Samsung INR18650-30Q battery	× 1	(/products/buy/265212?s=BAhJIhY2NTg4OS5xCYXNlQXJ0aWNsZQY6BkV

Software apps and online services

Blynk (/blynk/products/blynk)	(/products/buy/164?s=BAhJIhY2NTg4OS5xCYXNlQXJ0aWNsZQY6BkV
Arduino IDE (/arduino/products/arduino-ide)	(https://www.arduino.cc/en/main/s

Story

I found very simple way to make a wifi car. You actually need 4 things: NodeMcu esp8266 Amica, esp motorshield, chassis and your smartphone. So that's it, let's get started!

ESP motorshield

There's not so much information on the Internet about this board. First of all this shield for ESP-12E Dev Kit and NodeMcu boards and not for all, because width between pins is 25mm and that's not enough for some boards like LoLin. In my project I used NodeMcu Amica.

Read more

Schematics

Wifi car schematics

This is scheme for wifi car project

(https://halckemy.s3.amazonaws.com/uploads/attachments/398323/c

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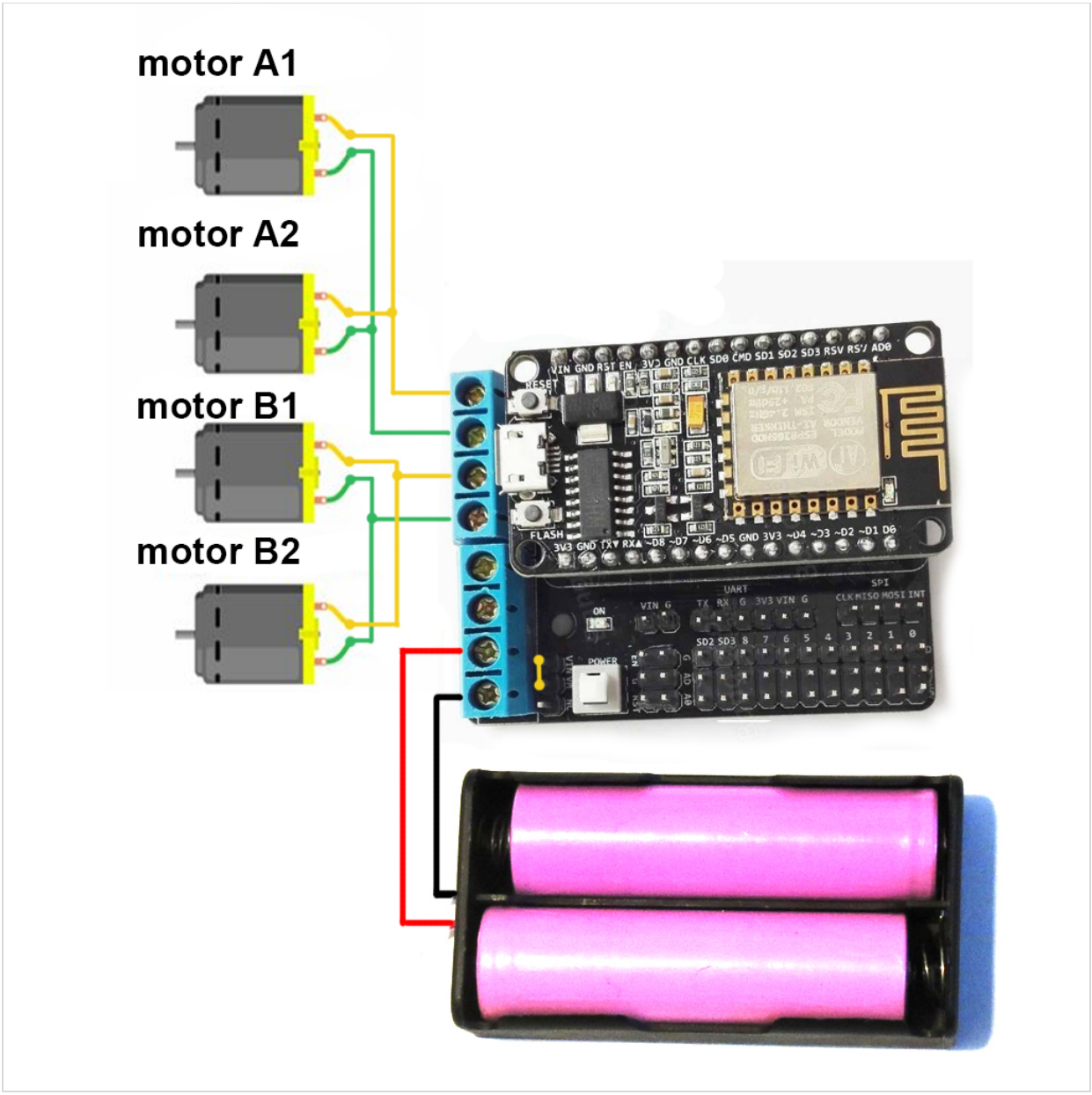

Code

Wifi car Arduino

This is code for wifi car.

(/code_files/157700/download)

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```
#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>


// You should get Auth Token in the Blynk App.
// Go to the Project Settings (nut icon).
char auth[] = "YourAuthToken";


// Your WiFi credentials.
// Set password to "" for open networks.
char ssid[] = "YourNetworkName";
char pass[] = "YourPassword";
```

Credits

(/andrewf1) **Andrewf1 (/andrewf1)**

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(/Darking) **Darking (/Darking)**

9 months ago

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Hi Andrew

Many thanks for your project. I have ordered the parts and look forward to my first

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ESP8266 Project

Thank • Reply

(/cmoessle) **C T (/cmoessle)**
2 months ago

Hi Andrew,

I have tried out your setup, but my motors are not moving at all.
I measured the voltage at A+ and A- and I only got 0.7V max when pushing the Blynk joystick. Any idea what I might be doing wrong? Do I need to make any adjustments to the motor-shield?

Thanks,
C

Thank • Reply • 1 thank

> (/cmoessle) **C T (/cmoessle)**
> 2 months ago
>
> Ah, now looking at your diagram again, I see you connected the shortcut pins. Sorry I somehow oversaw that also in your description. Will try it out at home this eveining 😃
>
> Thank • Reply to conversation

(/ramon-rodriguez) **Ramon Rodriguez (/ramon-rodriguez)**
a month ago

Hi Andrew,

```
I was wondering if it's possible to connect an SR-04 or SRF-05 to the motor shi
eld (OBSTACLE AVOIDANCE logic). I tried all PIN combinations but doesn't work. M
ost of the time it displays a WATCHDOG error.
```

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The shield doesn't expose all pins, esp those higher than GPIO16.

Can you please help me out on this?

Thanks!

Raymond

Thank • Reply

(/gajdur) **Gajdur (/gajdur)**
13 days ago

Hi, tried this tutorial and is working pretty good, only the motor B is always going forwards. Is something with the code or my hardware? Tnx

Thank • Reply

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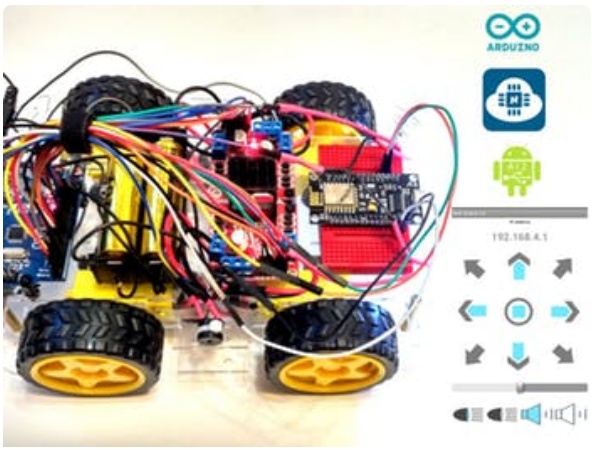

(/andriy-baranov/from-bt-to-wifi-creating-wifi-controlled-arduino-robot-car-09b7c1)

PROTIP
From BT To WiFi: Creating WiFi Controlled Arduino Robot Car (/andriy-baranov/from-bt-to-wifi-creating-wifi-controlled-arduino-robot-car-09b7c1)

Andriy Baranov (/andriy-baranov)

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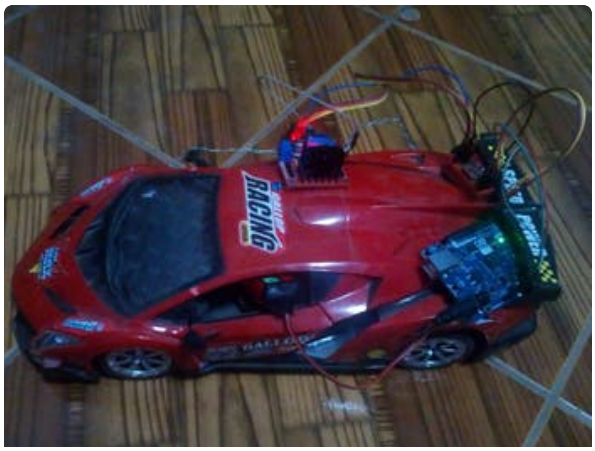

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RC Car to BT Car Controlled with Blynk (/daxes-hacks/rc-car-to-bt-car-controlled-with-blynk-2d305c)

Laurence Daxes (/LaurenceHR)

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