Arduino - Control DC Motor via Bluetooth by RuiSantos

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Hi guys, My name is Rui Santos. Who am I? I'm a 19 years old student currently studying at FEUP Electrical Engineering. I'm Portuguese. I've created this account to share my electronics projects. If you guys enjoy my projects you can visit my website for more information. Or contact me by sending an email to rffsantos16 at gmail.com

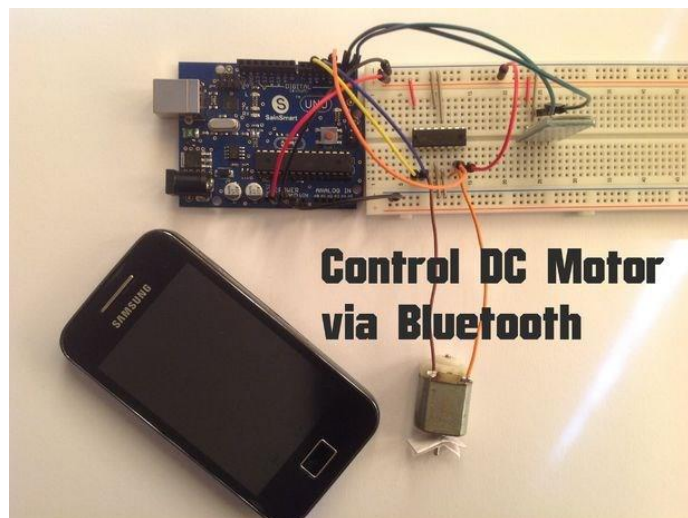## Intro: Arduino - Control DC Motor via Bluetooth

Hi guys,

In this project we will control a DC motor with a smartphone via bluetooth. This project is great to learn more about:

- DC motor
- Interfacing Arduino with your smartphone
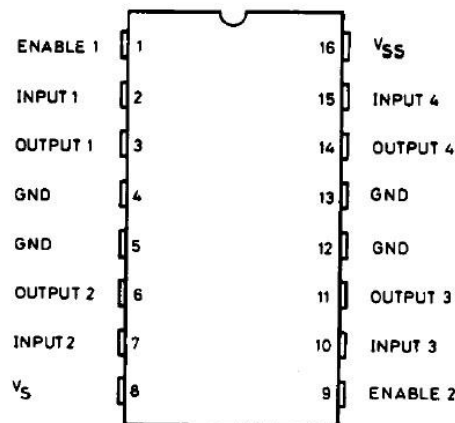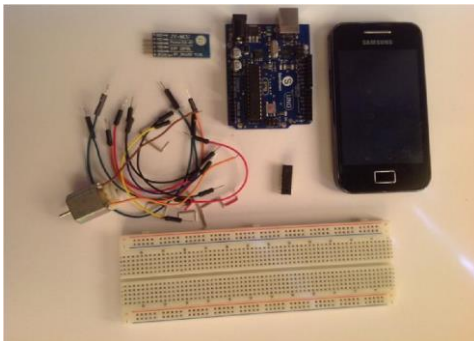- Bluetooth module -
L293D

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Step 1: Parts required

1 x Arduino Uno
1 x Bluetooth Module (for example: HC -05)
1 x Smartphone (any Android will work)
BlueTerm application
1 x L293D IC
1 x DC motor
1 x Breadboard
Jumper Cables

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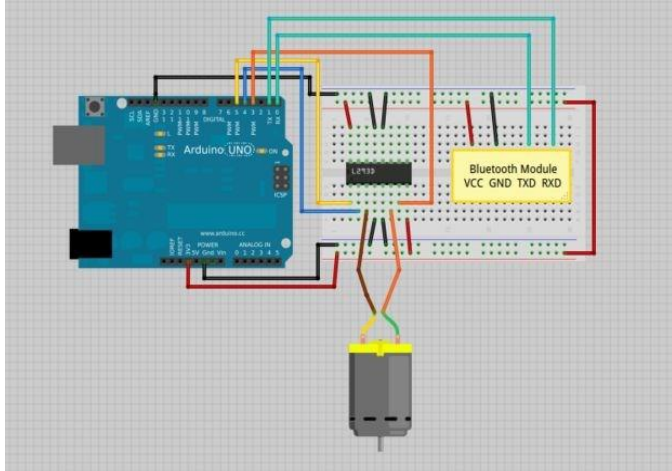
Step 2: Schematics and common mistakes

Two common mistakes:

- You need to remove the RX and TX cables when you're uploading the sketch to your Arduino.
- Sometimes people connect the TX from the bluetooth module to the TX of the Arduino… that's wrong and it won't work. Make sure you connect it properly, the TX into RX and the RX into the TX.

Note:

If the HC-05 Bluetooth Module asks for a password, It's '1234'.

Step 3: Arduino Code

For the android communication with our bluetooth module I've used the BlueTerm app, It's completely free, so you just need to go to "Play store" and download it. Then you just need to connect your smarthphone with the bluetooth module. Remember to remove the TX and RX cables. (you can see in youtube video below how that's done).
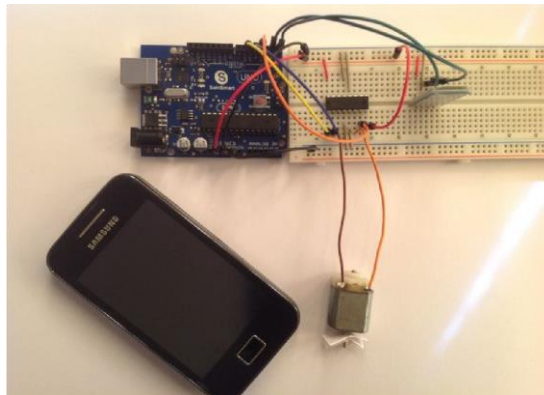
Step 4: Final Product

I've only set 3 commands to control the DC motor:

'0' – Turns off the DC motor
'1' – DC motor rotates to right
'2' – DC motor rotates to left

For more project and tips you can also check my website: http://randomnerdtutorials.com/
You can see this project working right now: http://www.youtube.com/randomnerdtutorials

Thanks for reading