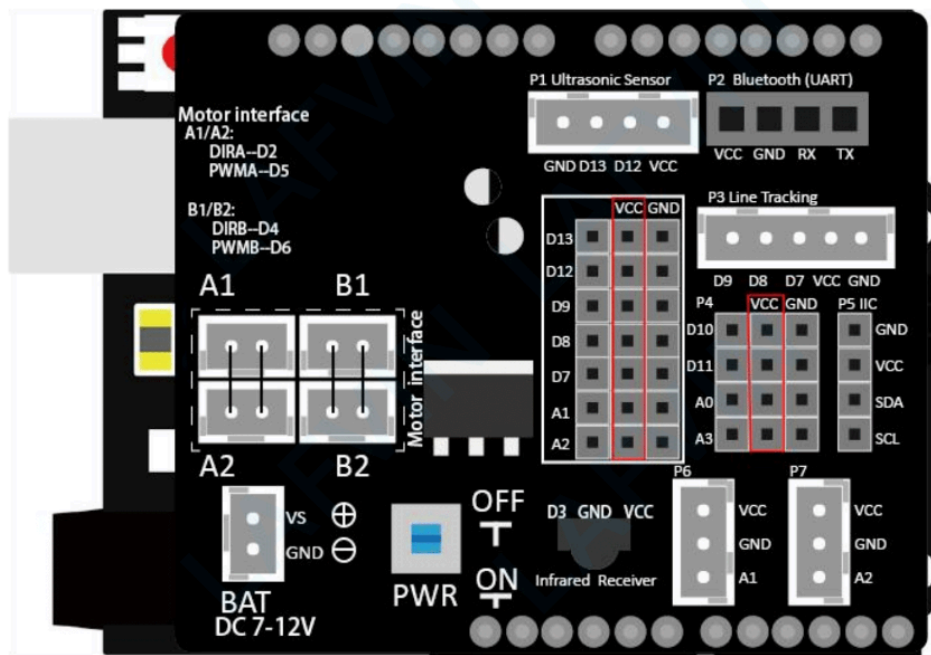


Materials

- Arduino Uno
- Motor Driver Expansion Shield
- Battery Case (2 slots 18650)
- 3 servo motors
- 4 DC motors with wheels
- 2 IR obstacle avoidance modules (optional)
- Ultrasonic Sensor
- Bluetooth Module (Optional)
- Connecting wires
- Case/Body



A1 A2 B1 B2 of the motor Arduino shield is the interface of the motor.

The motors connected to the A1 interface and the A2 interface have the same speed and the same direction.

The motors connected to the B1 and B2 ports have the same speed and the same direction.

The D2 digital I/O port controls the direction of the motor of the port A, and the D5 digital I/O port outputs the PWM signal to control the speed of the motor of the port A.

The D4 digital I/O port controls the direction of the motor of the interface B, and the D6 digital I/O port outputs the PWM signal to control the speed of the motor of the interface B.

Connections:

servo motor for neck - D9

servo motor for left arm - D8

servo motor for right arm - D7

note: all servos are on the P9 slots

front left wheel - B1

back left wheel - B2

front right wheel - A1

back right wheel - A2

note: the first image

ultrasonic sensor - P1 ultrasonic sensor slot

right infrared module - P7 slot

left infrared module - P6 slot

battery - battery slot

IR receiver - D3

IR obstacle avoidance module - A1(left) & A2(right)

IR Remote Controls:

controls for the wheels:

arrow up - go forward

arrow down - go backward

arrow left - turn left

arrow right - turn right

OK - stop

1 - rotate left

3 - rotate right

2 - go faster

5 - go slower

controls for the servo motors:

* - servo motor for neck turns left

- servo motor for neck turns right

4 - servo motor for left arm turns right

7 - servo motor for left arm turns left

6 - servo motor for right arm turns left

9 - servo motor for right arm turns right

0/8 - turns on/off automatic ultrasonic and infrared obstacle avoidance mode

IR Remote Signal Keys:

^ - B946FF00

< - BB44FF00

arrow down - EA15FF00

> - BC43FF00

OK - BF40FF00

1 - E916FF00

2 - E619FF00

3 - F20DFF00

4 - F30CFF00

5 - E718FF00

6 - A15EFF00

7 - F708FF00

8 - E31CFF00

9 - A55AFF00

0 - AD52FF00

* - BD42FF00

- B54AFF00