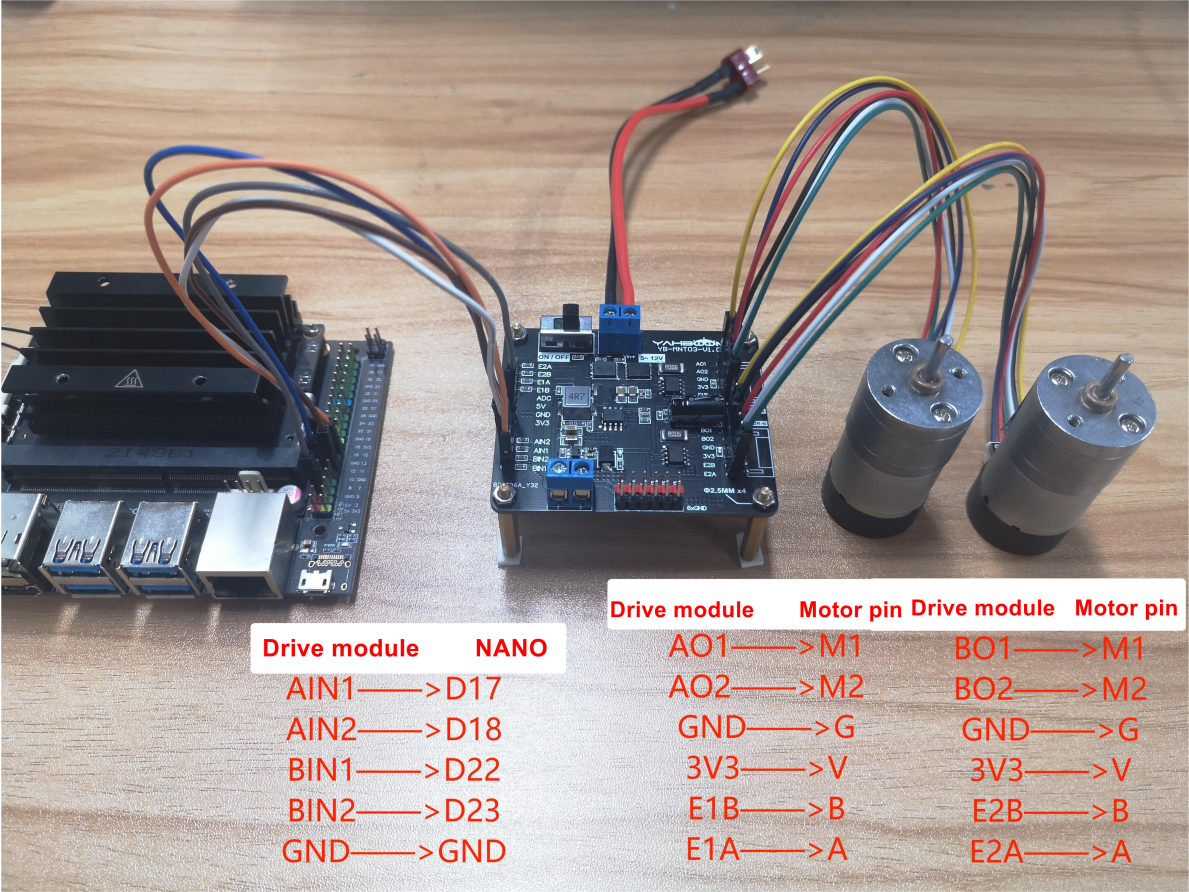


Jetson nano

1. Preparation

Connect the motor drive board and Jetson nano according to the wiring diagram, connect the battery to the power input interface on motor drive module.



BCM Function		Pin	Function	BCM	
	3V3	1	2	5V	
2	SDA	3	4	5V	
3	SCL	5	6	GND	
4	D4	7	8	D14(TXD)	14
	GND	9	10	D15(RXD)	15
17	D17	11	12	D18	18
27	D27	13	14	GND	
22	D22	15	16	D23	23
	3V3	17	18	D24	24
10	D10	19	20	GND	
9	D9	21	22	D25	25
11	D11	23	24	D8	8
	GND	25	26	D7	7
0	DO(ID_SD)	27	28	D1(ID_SC)	1
5	D5	29	30	GND	
6	D6	31	32	D12	12
13	D13	33	34	GND	
19	D19	35	36	D16	16
26	D26	37	38	D20	20
	GND	39	40	D21	21

Note: The motor interface wire sequence of the dual motor drive board should correspond to the motor pin! Otherwise, the motor drive plate will be damaged.

Note: The motor interface wire sequence of the dual motor drive board.

Pin details					
Interface type	Pin name	Pin description	Interface type	Pin name	Pin description
MCU/ host interface	E1A	Motor 1 Hall signal A	Motor port	AO1	Motor 1 power supply+
	E1B	Motor 1 Hall signal B		AO2	Motor 1 power supply-
	E2A	Motor 2 Hall signal A		GND	GND
	E2B	Motor 2 Hall signal B		3V3	Motor 1 Hall power supply
	ADC	Collect VM input voltage		E1B	Motor 1 Hall signal B
	5V	Output 5V3A power supply		E1A	Motor 1 Hall signal A
	GND	GND		BO1	Motor 2 power supply+
	3V3	Output 3.3V voltage		BO2	Motor 2 power supply-
	AIN1	Motor 1 drive signal 1		GND	GND
	AIN2	Motor 1 drive signal 2		3V3	Motor 2 Hall power supply
	BIN1	Motor 2 drive signal 1		E2B	Motor 2 Hall signal B
	BIN2	Motor 2 drive signal 2		E2A	Motor 2 Hall signal A

2. Code

```
import RPi.GPIO as GPIO #Import library
import time

GPIO.setmode(GPIO.BCM) #Set pin
AIN1 = 17
AIN2 = 18
BIN1 = 22
BIN2 = 23
GPIO.setwarnings(False) #Remove warning
GPIO.setup(AIN1, GPIO.OUT) #Set pin to output mode
GPIO.output(AIN1, 0)
GPIO.setup(AIN2, GPIO.OUT)
GPIO.output(AIN2, 0)
GPIO.setup(BIN1, GPIO.OUT)
GPIO.output(BIN1, 0)
GPIO.setup(BIN2, GPIO.OUT)
GPIO.output(BIN2, 0)

def forward(): #Motor rotation
    GPIO.output(AIN1,1)
    GPIO.output(AIN2,0)
    GPIO.output(BIN1,1)
    GPIO.output(BIN2,0)
```

```
def stop():    #Motor stop
    GPIO.output(AIN1,0)
    GPIO.output(AIN2,0)
    GPIO.output(BIN1,0)
    GPIO.output(BIN2,0)

forward()    #Motor rotation
time.sleep(5)    #Delay 5 seconds
stop()    #stop
GPIO.cleanup()    #clean up
```

3. Experimental result

Jetson nano runs the program. The motor drive board drives the motor to rotate, delaying for 5s, and then stops rotating.