**********Draft Valve Control**********

Initial work by Joe Small

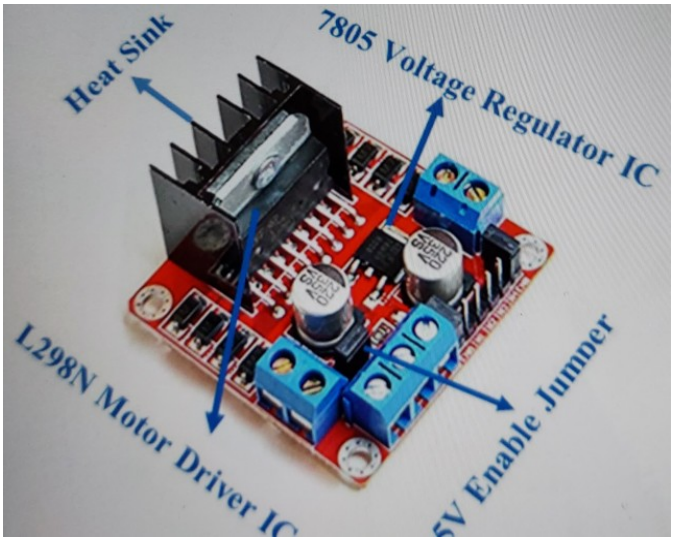
using a pico_w programmed with Arduino IDE

L288 Motor Control

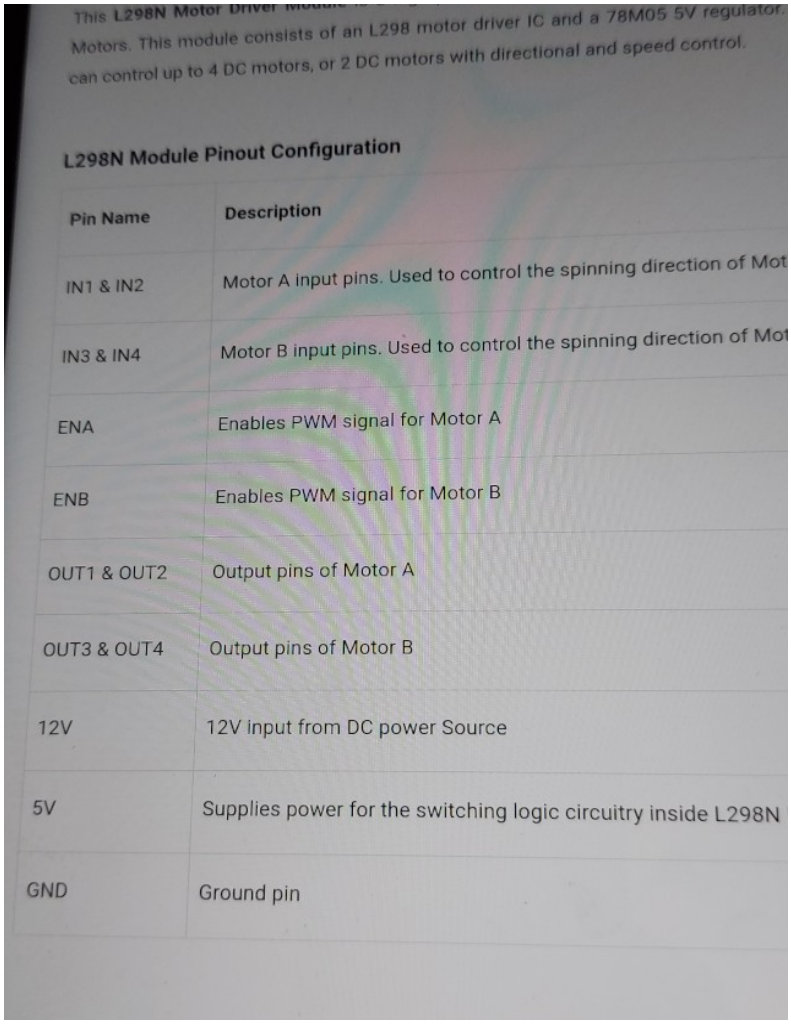
08/02/23

**********Draft Valve Control**********

L288 Components



L288 pins description

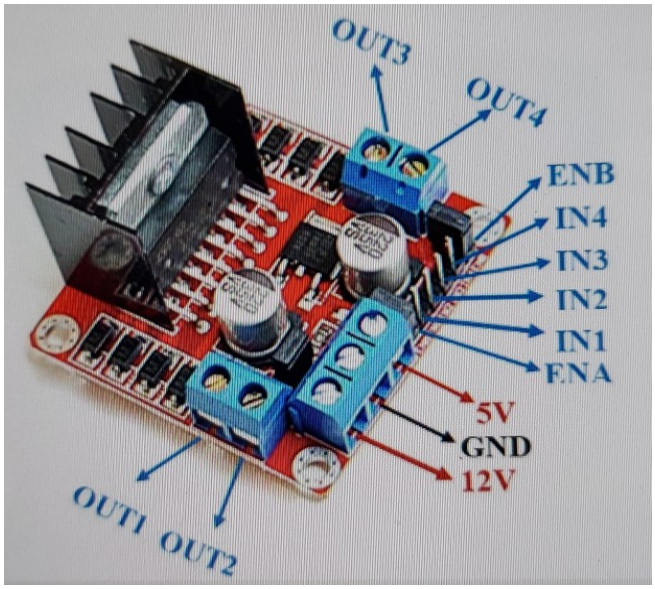


This L298N Motor Driver Module ... 78M05 5V regulator. Motors. This module consists of an L298 motor driver IC and a 78M05 5V regulator. can control up to 4 DC motors, or 2 DC motors with directional and speed control.

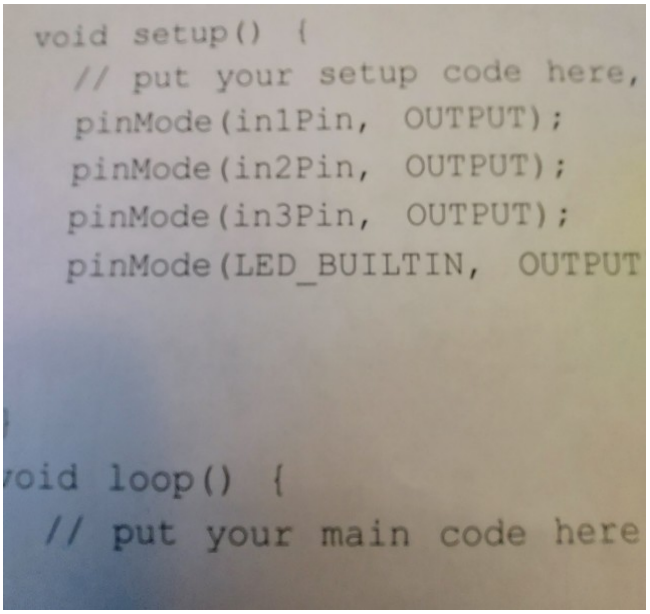
L298N Module Pinout Configuration

Pin Name	Description
IN1 & IN2	Motor A input pins. Used to control the spinning direction of Mot
IN3 & IN4	Motor B input pins. Used to control the spinning direction of Mot
ENA	Enables PWM signal for Motor A
ENB	Enables PWM signal for Motor B
OUT1 & OUT2	Output pins of Motor A
OUT3 & OUT4	Output pins of Motor B
12V	12V input from DC power Source
5V	Supplies power for the switching logic circuitry inside L298N
GND	Ground pin

L288 pins.



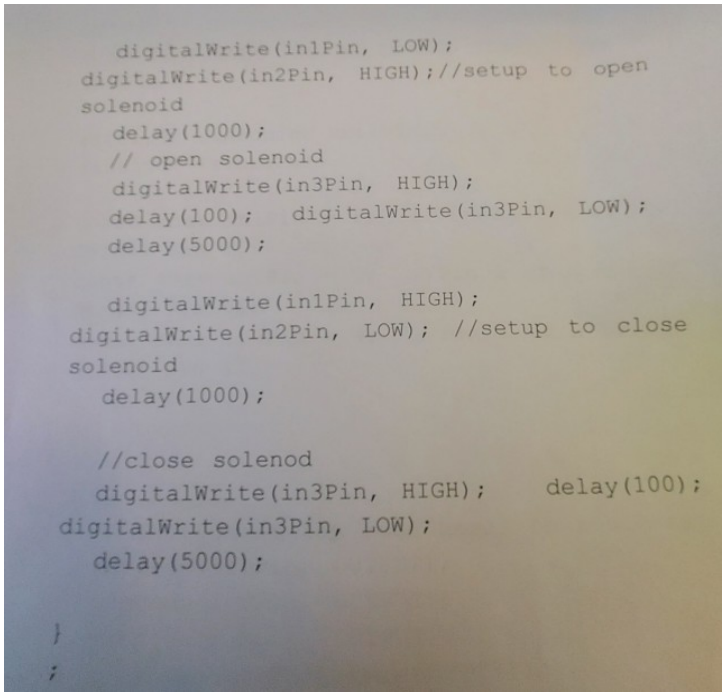
pico_w program provided by Joe Small (setup).



```
void setup() {
  // put your setup code here,
  pinMode(in1Pin, OUTPUT);
  pinMode(in2Pin, OUTPUT);
  pinMode(in3Pin, OUTPUT);
  pinMode(LED_BUILTIN, OUTPUT

oid loop() {
 // put your main code here
```

pico_w program provided by Joe Small (loop).



```
    digitalWrite(in1Pin, LOW);
  digitalWrite(in2Pin, HIGH);//setup to open
  solenoid
    delay(1000);
    // open solenoid
    digitalWrite(in3Pin, HIGH);
    delay(100);   digitalWrite(in3Pin, LOW);
    delay(5000);

    digitalWrite(in1Pin, HIGH);
 digitalWrite(in2Pin, LOW); //setup to close
 solenoid
   delay(1000);

   //close solenod
   digitalWrite(in3Pin, HIGH);    delay(100);
digitalWrite(in3Pin, LOW);
  delay(5000);

}
;
```

Bit 0 low Bit 1 low Bit 2 low

mosquitto_pub -h $1 -p 1883 -t 'pico/cmds' -u 'testuser' -P 'password123' -m 'x20955150a'

Need 2 flags

u8_t open_flg=0;
u8_t close_flg=0;

Need to add 2 tasks

#define OPEN_TASK_PRIORITY (tskIDLE_PRIORITY + 9UL)
#define CLOSE_TASK_PRIORITY (tskIDLE_PRIORITY + 10UL)

devel@pi4-37:~/pico_w-mqtt/remote5 $ ./exe-ocd.sh

Starting FreeRTOS on core 0:
Connecting to Wi-Fi...
Starting FreeRTOS on core 0:
Connecting to Wi-Fi...
Connected.
MQTT client "remote5" connection cb: status 0
MQTT client "remote5" request cb: err 0
MQTT client "remote5" request cb: err 0
Starting server at 192.168.32.106 on port 4001
open_task starts
close_task starts
ntp address 216.229.4.66

#2nd char 6
mosquitto_pub -h $1 -p 1883 -t 'pico/cmds' -u 'testuser' -P 'password123' -m 'x60955150a'

Initially both open_flg & close_flg are 0
open task 0 0
open task 1 0
After the command is executed the open_flg is 1 and close_flg remains at 0

#2nd char 7
mosquitto_pub -h $1 -p 1883 -t 'pico/cmds' -u 'testuser' -P 'password123' -m 'x70955150a'

close task 1 0
close task 0 1