Logic control for motor 1

Logic control for motor 2

Don't connect 5V/3.3V of any microcontroller to VIN, only connect GND to microcontroller's GND

Logic control for motor 3

Logic control for motor 4

Motor 1

Motor 2

Input supply (6.5V – 45V)

Motor 3

Motor 4

Motor driver pins	Arduino pins
Motor1 IN1	3
Motor1 IN2	5
Motor2 IN1	6
Motor2 IN2	9
Motor3 IN1	2
Motor3 IN2	10
Motor4 IN1	4
Motor4 IN2	11

1) We have connected on board resistor of 30KΩ so that the module sets the output current to 2A. If your motor pulls more than 2A in any case then this should stop the module to work further protecting the IC. You can refer the IC's datasheet for more details on page no 9.
2) From this we can consider that we can drive motor with <u>continuous current</u> of 2A.
3) If you try to connect the microcontroller's 5V/3.3V to VIN pin of motor driver then you will end up damaging your microcontroller. We don't recommend to do this.
4) If you are hearing some kind of noise from the motor while testing with Arduino then it's possible it is because of the PWM frequency of Arduino (490 Hz or 980 Hz). As you know that human ear can hear signal from 20 Hz to 20KHz. So, this noise is a normal thing.
5) If you are using any other microcontroller then check it's PWM frequency. You can check the PWM conditions in the datasheet for more details on page no 4 (Fpwm).
6) Do not connect brushless motors with this motor driver, there are separate motor drivers in the market to control brushless motors as they work differently compared to brushed motors.
7) Do not provide more than 5.5V logic input voltage to the motor driver PWM input.
8) Code link:- https://github.com/eveltaTech/7semi-motor-drivers/tree/main