

310 Motor Introduction and Usage

This article is used to explain the motor parameters, recommended supply voltage, and the recommended wiring method for this motor to be connected to the four-way motor driver board.

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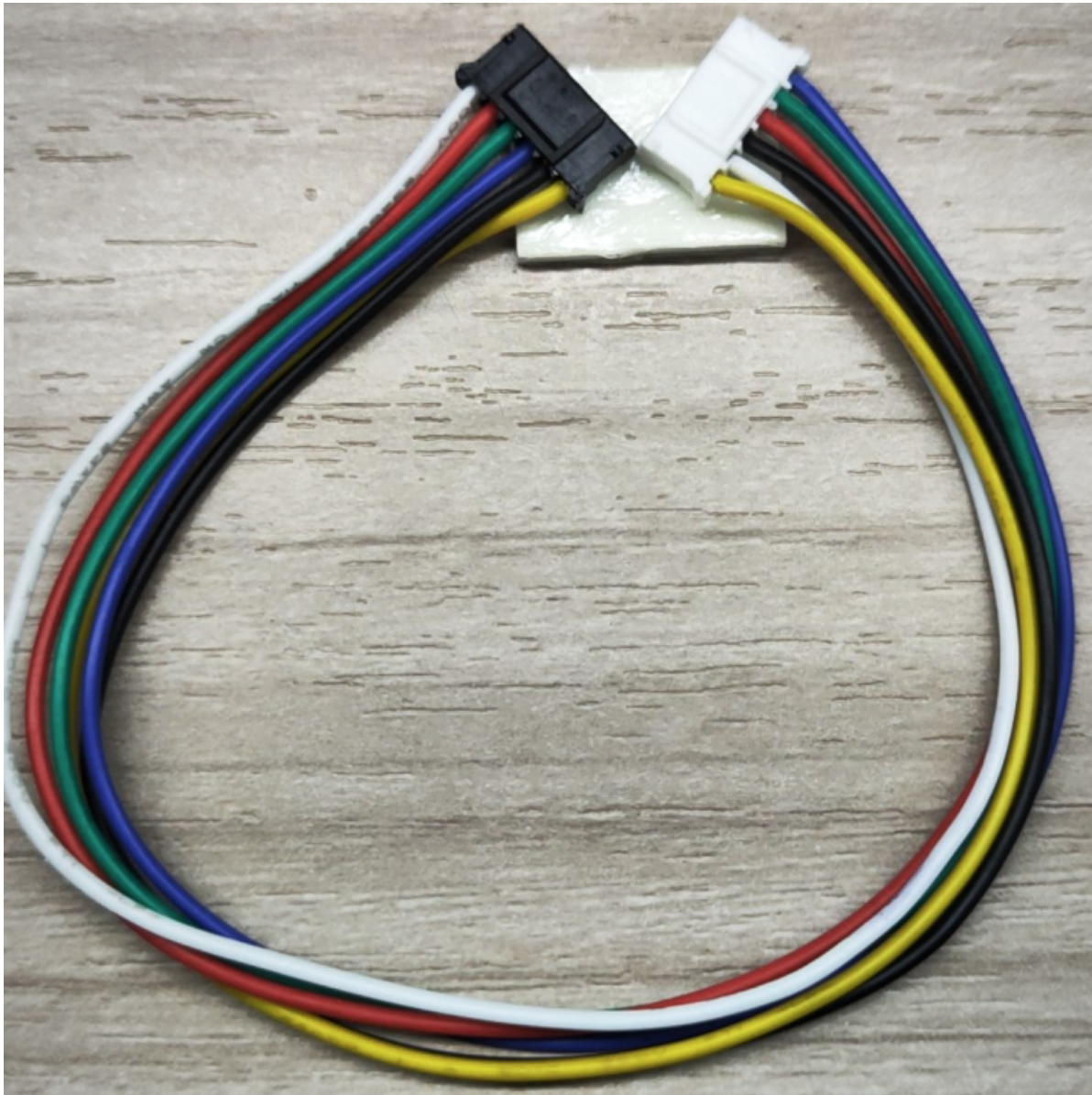
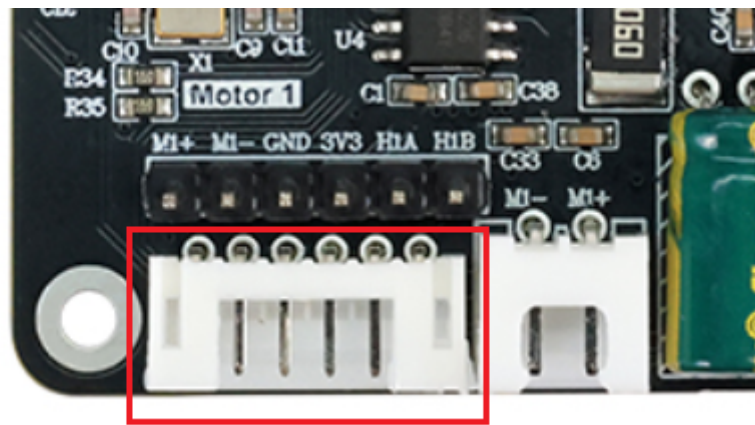


Parameter	Value/Description
Motor model	MD310Z20_7.4V
Stall current	$\leq 1.4\text{A}$
Motor rated voltage	7.4V
Rated current	$\leq 0.65\text{A}$
Motor type	Permanent magnet brush
Gear set reduction ratio	1:20
Output shaft	3mm diameter D-type eccentric shaft
Encoder type	AB phase incremental Hall encoder
Stall torque	$\geq 1.0\text{kg}\cdot\text{cm}$
Encoder supply voltage	3.3-5V
Rated torque	$0.4\text{kg}\cdot\text{cm}$
Magnetic ring wire number	13 wires
Speed before deceleration	9000rpm
Interface type	PH2.0 6Pin
Function	With pull-up shaping, the microcontroller can directly read the signal pulse
Speed after deceleration	$450\pm 10\text{rpm}$
Rated power	4.8W
Weight of single motor	About 70g

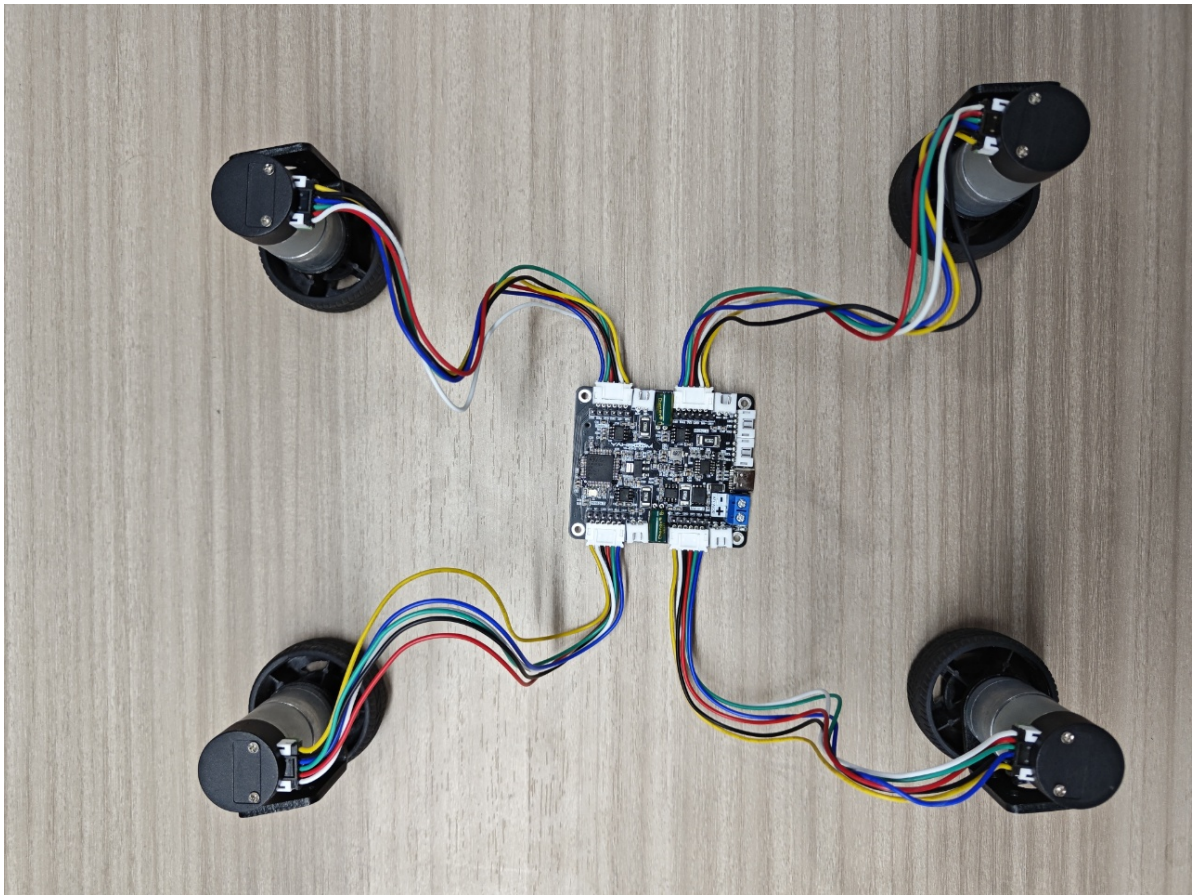
Recommended power supply: **7.4V**. It can be connected to a voltage between 4.2~8.4V, and **7.4V voltage is recommended**.

The two parameters **reduction ratio and number of magnetic ring lines** in the main parameter table are required. These two parameters may be modified when using a four-way motor driver board.

The 310 motor in the chassis package containing the Silu motor driver module has a PH2.0-6PIN double-head cable. The black end can be connected to the 310 motor, and the white end can be connected to the PH2.0-6PIN encoder motor interface on the four-way motor driver board. At this time, the motor type configuration also selects `$mtype:2#`, the model of the 310 motor.







Purchase the four-way motor drive module and the 310 motor without the electronic control chassis package, with a PH2.0-6PIN to DuPont cable, connect the white connector to the 310 motor, and insert the DuPont cable into the pin header next to the PH2.0 interface of the four-way motor drive board according to the pin sequence.



- 1: Motor power cable 【M2】
2: Encoder power supply 【V】
3: Encoder output A phase 【A】
4: Encoder output B phase 【B】
5: Encoder ground wire 【G】
6: Motor power cable 【M1】

