Instructions for using S3 driver upper computer

1. hardware configuration

The upper computer software of S3 driver adopts CAN communication method, with two communication lines connected to the upper computer through USBCAN tool. To use the upper computer, ZLGCAN driver needs to be installed in advance.

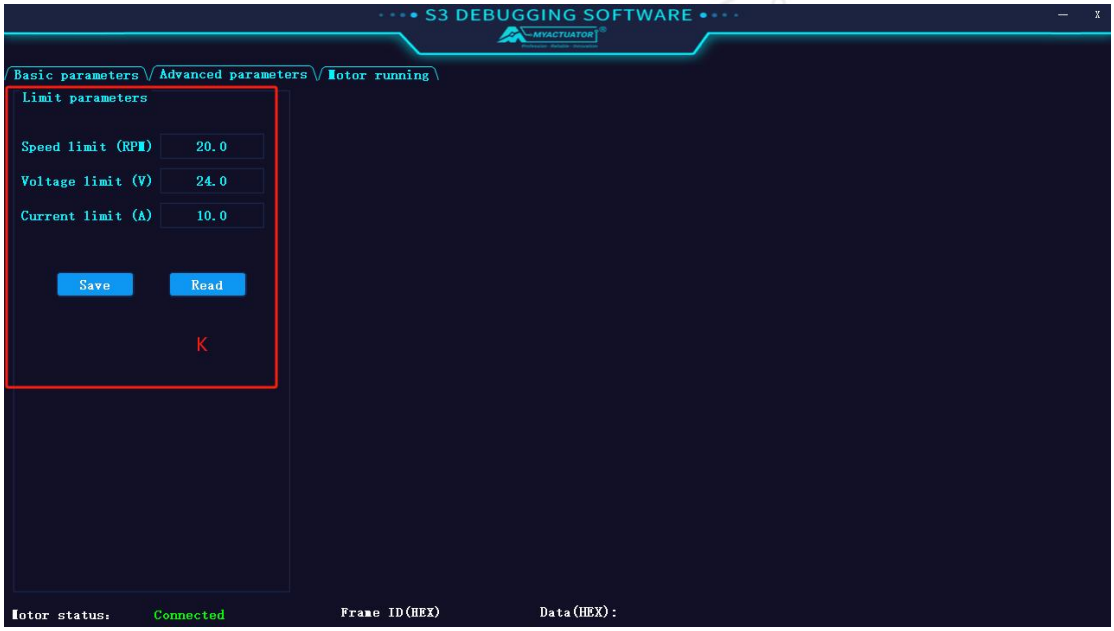
2. Upper computer interface and instructions

Before connecting the motor:

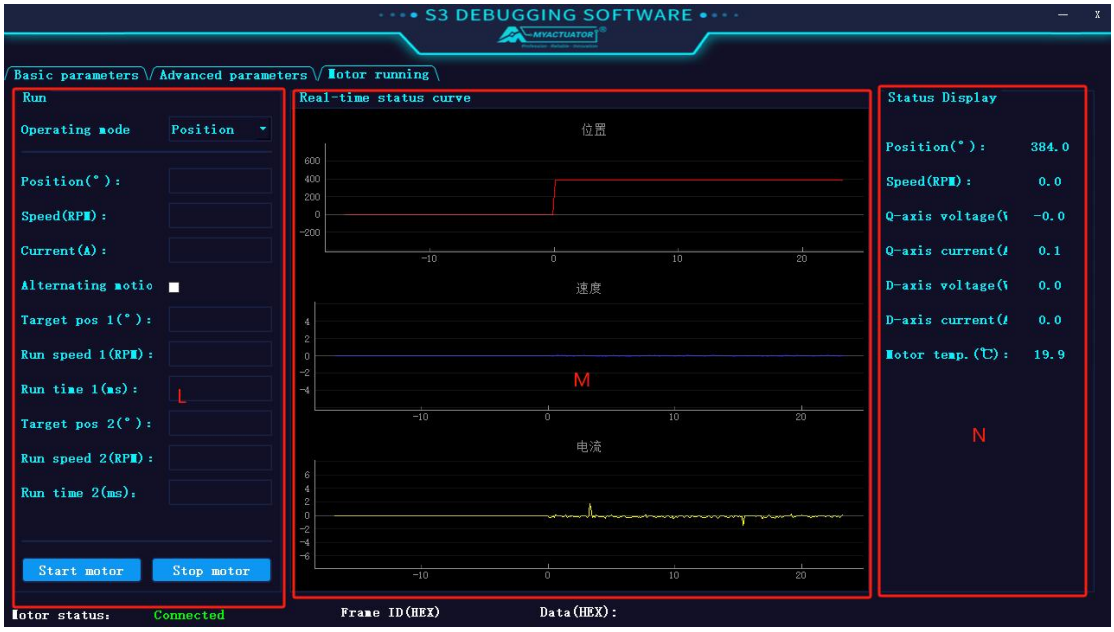
After successfully connecting the motor

Basic parameter page

Advanced parameter page



Motor Running Page



Mainly including:

A. Page switching

- Basic parameter page
- Advanced parameter page
- Motor running page

B. Obtain motor ID and modify motor ID

C. Connection and disconnection of motors

D. First encoder calibration and zero point setting

E. Second encoder calibration (not yet open)

F. Motor information display

G. Acquiring and modifying PID parameters of motors

H. Motor status display

I. not have

J. CAN command prompt

K. restricted parameters

L. Motor operation module

M. Real time curve module

N. Status Display

3. Motor connection

Before connecting the motor, please ensure that the ZLGCAN driver program is installed on the computer, the motor is connected to the power supply and USBCAN module, and click the connection button. If the motor ID, PID, and other information can be obtained, it indicates that the motor is connected normally, and the upper computer can be used to operate the motor; If there is no response from the motor connection, it indicates that the motor is not connected. The reason is that the motor is not powered, USBCAN is not connected properly, and CAN communication is faulty. If all connections are normal and the upper computer cannot be used properly, please contact technical support personnel.

Click the disconnect button to disconnect the motor.

4. Basic parameter settings

4.1. Modify motor ID

The default ID of the motor at the factory is 1

Motor modifiable ID range: 1-30

Enter the ID that needs to be set, modify the motor ID, successfully modify the motor ID, and it will take effect immediately

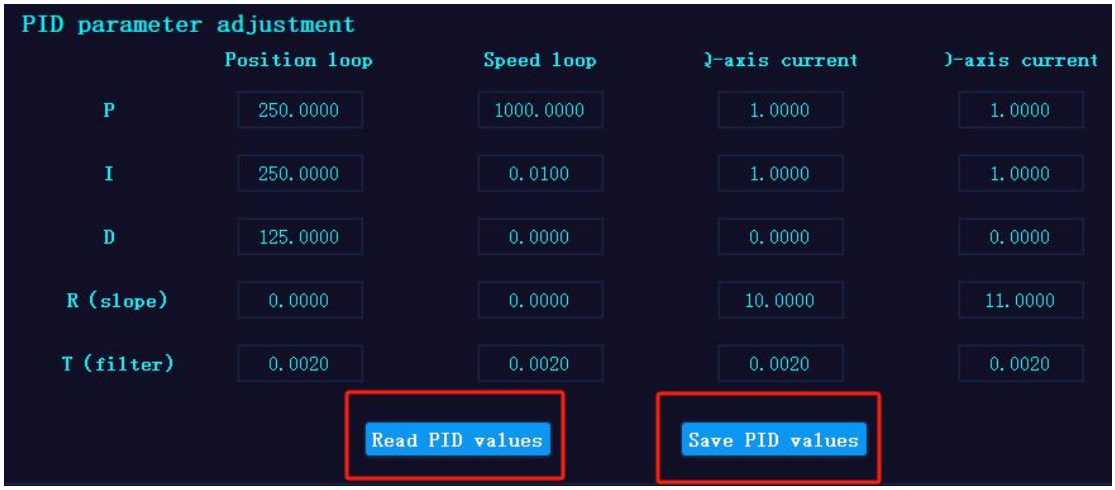
4.2. 4.2. Encoder calibration (first encoder)

Click on encoder calibration, the motor performs calibration operation, and the indicator light changes from blue to yellow. After calibration is completed, the blue indicator light remains on, and the motor returns to all default parameters, including the motor ID

4.3. Set Zero Point (First Encoder)

Click to set the zero point, the current position will become zero, and it will take effect immediately

4.4. Reading and Saving PID Values

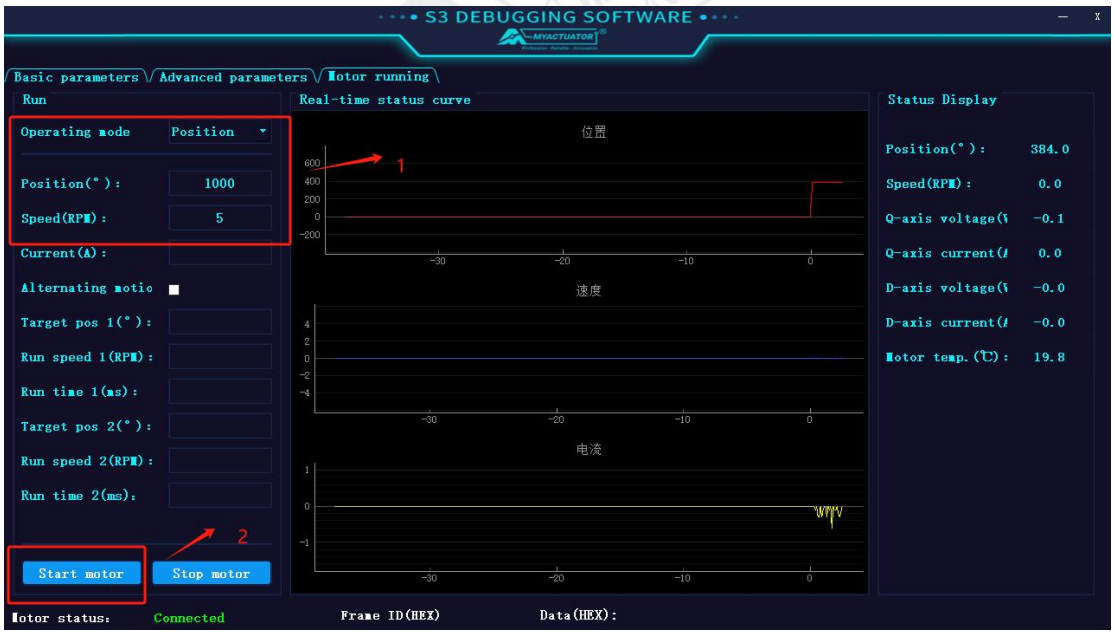


Click to read the PID value to obtain the data shown in the above figure.

The motor saves PID values and can set the PID parameters of the motor; Only the D parameter of the position loop can be adjusted (to adjust the overshoot phenomenon of the motor)

5. Motor operation demonstration

5.1. Position mode

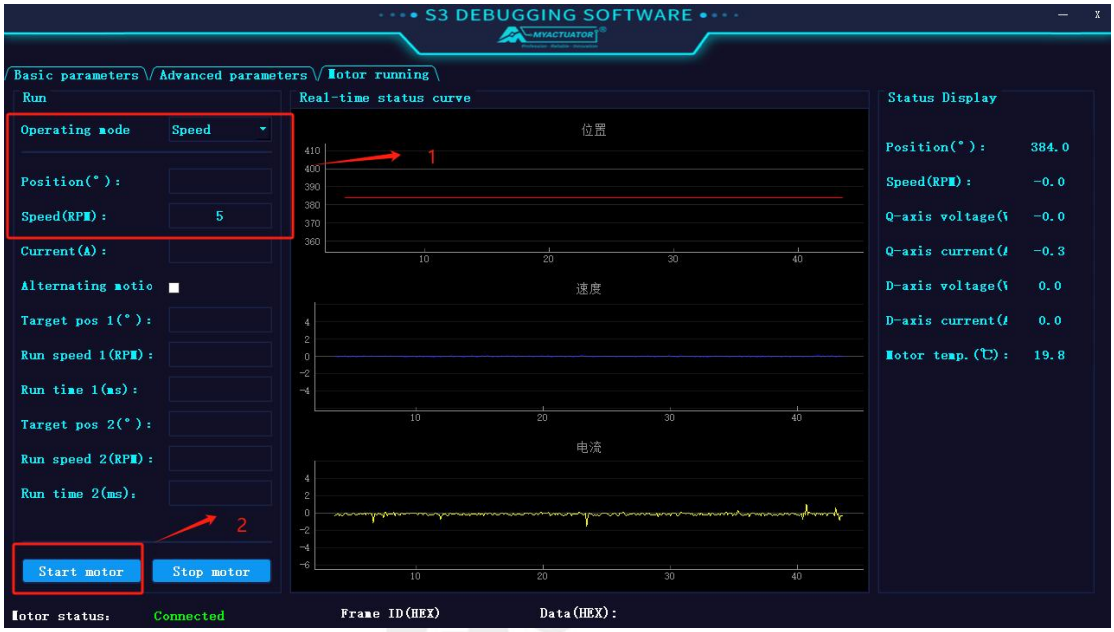


In position mode, the position and speed values need to be given. Click to start the motor, and

the motor will run to the given position according to the given speed; The position and running speed can be observed through status display and real-time status curve.

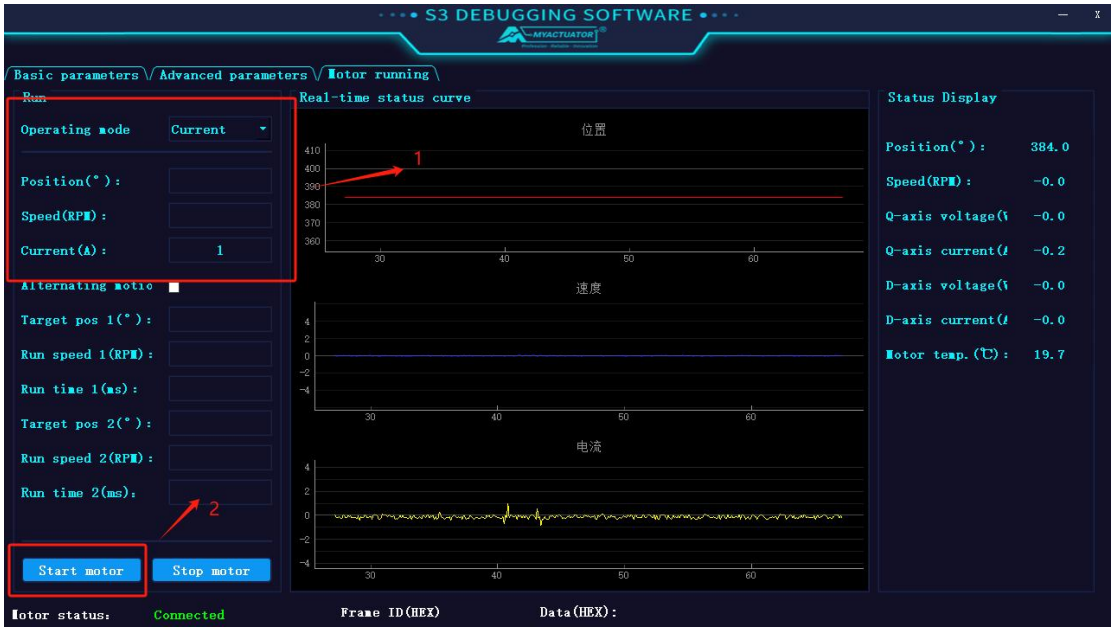
Speed value range: refer to the appendix

5.2. Speed mode



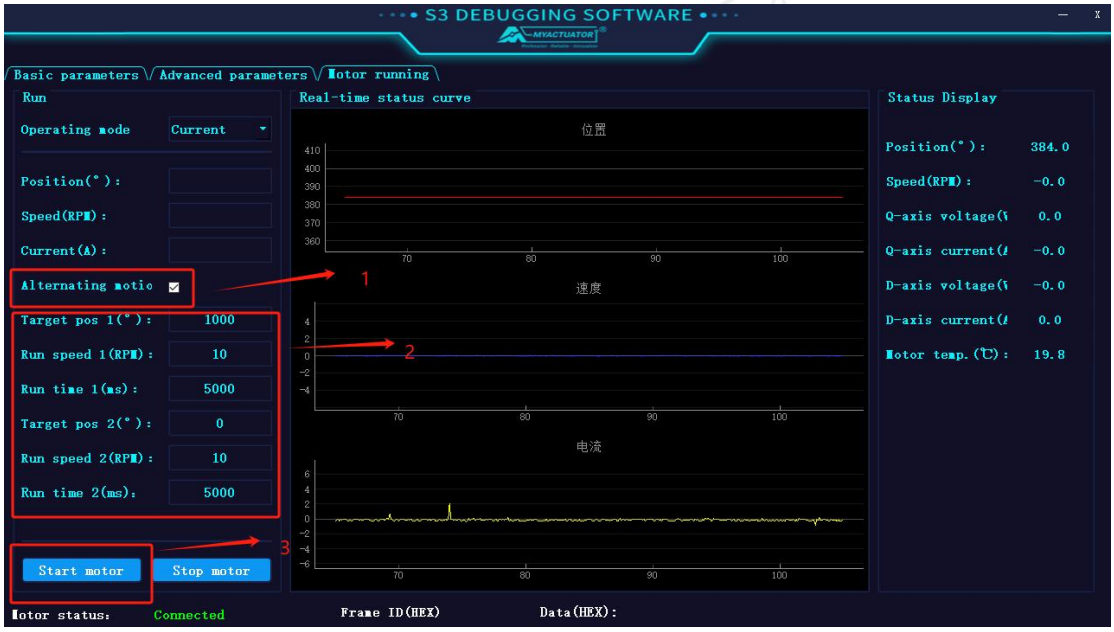
In speed mode, given the speed of the motor, the motor will continue to operate at the given speed.

5.3. Current mode



In current mode, the motor operates according to the given current value.

5.4. Reciprocating motion mode



In reciprocating motion mode, it is necessary to select the reciprocating motion switch and provide target position 1, running speed 1, and running time 1; Target position 2, running speed 2,

running time 2, click the start motor button, and the motor will move back and forth according to the given value.

1.1. Version Revision Information

V1.0. 2023-12-24

Appendix

Motor model	Speed value range
CEM30	0~15RPM
RMD-H-90	30~300RPM