Use URT-1 to control Feetech SM servo（SM40BL for example):

1.Refer to URT-1 manual.pdf

2. Material List：

① URT-1 drive board

② connect URT-1 and MINI USB cable on computer

③ power supply to Feetech Servo

④ cable connect servos

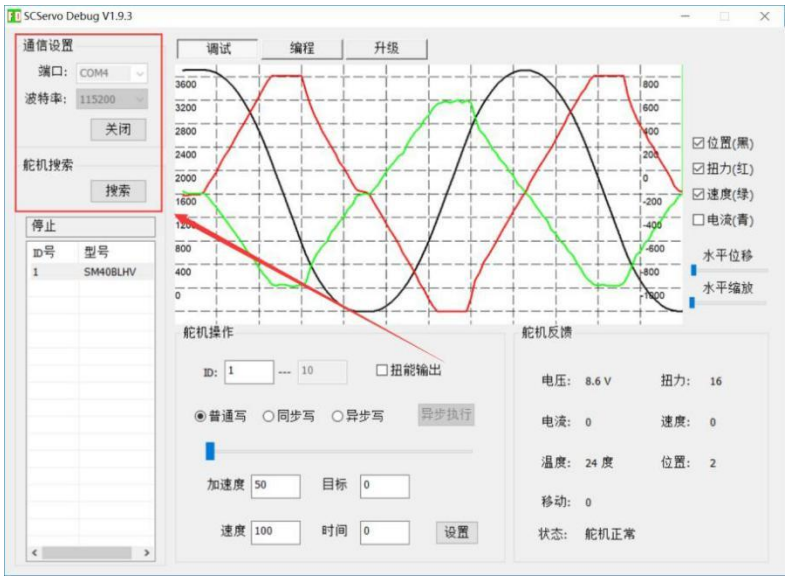
⑤ Dupont wire（optional）

3.Connect URT-1 and computer

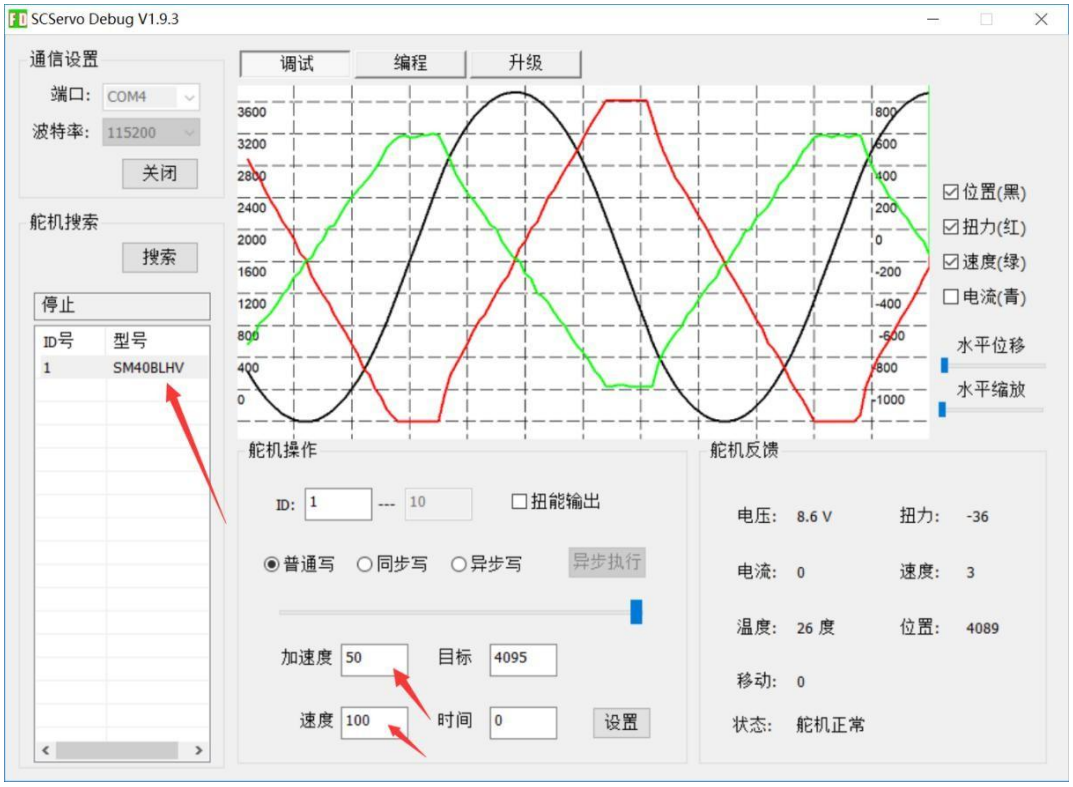
4.Install Driver,Refer to document of CH340 drive,Check the serial number of the device manager

5.connect servo to URT-1 ,RT-1 connect to power,refer to following picture:

6.Open the software FD software for debugging:select port number（The serial number of the device manager）-Baud Rate（default is 1000000 or 115200）-open-search.



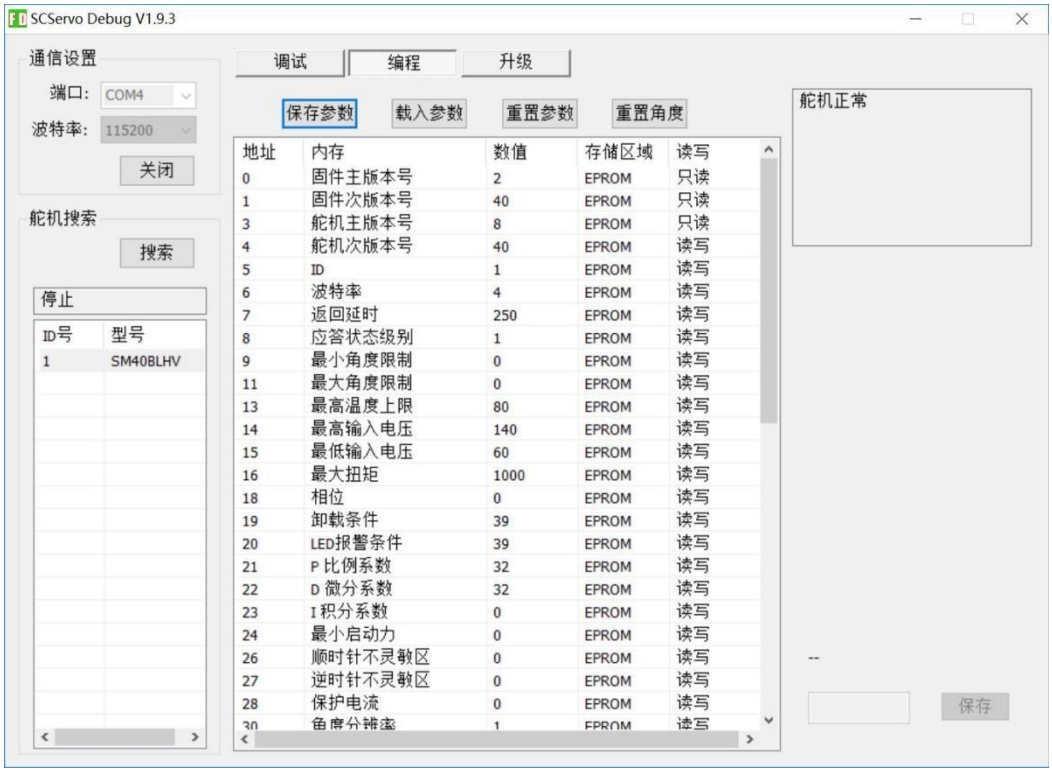
7.Click servo model,input values in Acceleration and velocity,（The servo without acceleration function only needs to input the speed value)



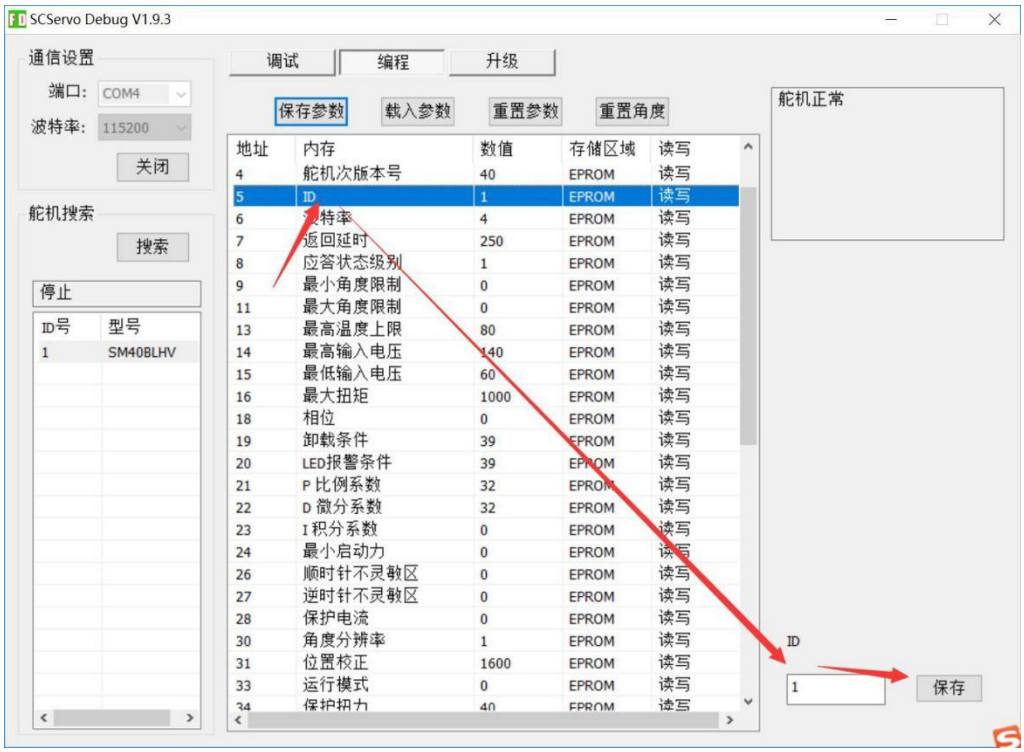
click setting,pull rod,watch the servo power shaft rotation

8.More detailed introduction to FD can be seen SCServo-Debug manual 17.4.6.pdf

9.Modify the servo parameter sheet please click programming.



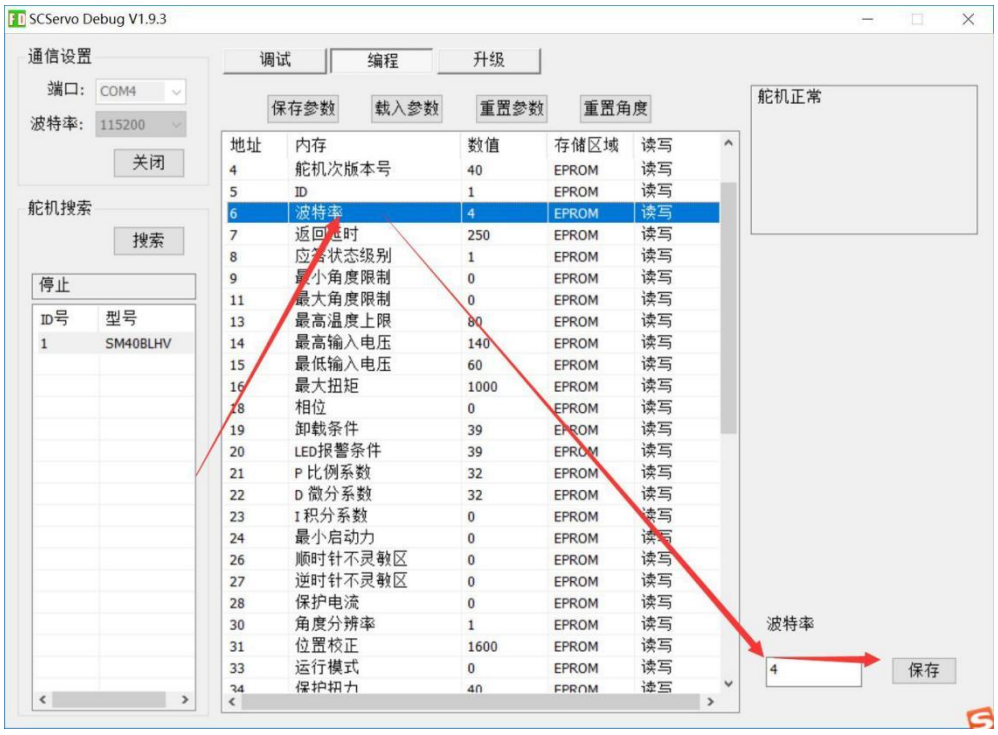
10.How to modify servo parameter?click ID ,input numbers at lower right corner then click save that will do.



11.How to modify servo Baud rate？Click Baud rate,input number at lower right corner,then click save that will do.

The baud rate is:

0 Corresponding 1000000	1 Corresponding 500000	2 Corresponding 250000	3 Corresponding 128000
4 Corresponding 115200	5 Corresponding 76800	6 Corresponding 57600	7 Corresponding 38400



12.Same way to modify:

①Modify multi circles rotations:

Address:30 angle resolution 1 means CW 1 turn, CCW1turn

2 means CW 2 turns,CCW 2 turns...Can't over 100

②open pid parameter adjust interface,address:21-23

③Zero position calibration function（Position correction）Address:31

④Multi Work Mode（0 Position control mode and 1 Constant speed motor mode,2PWM motor mode）

⑤Self unloading force protection

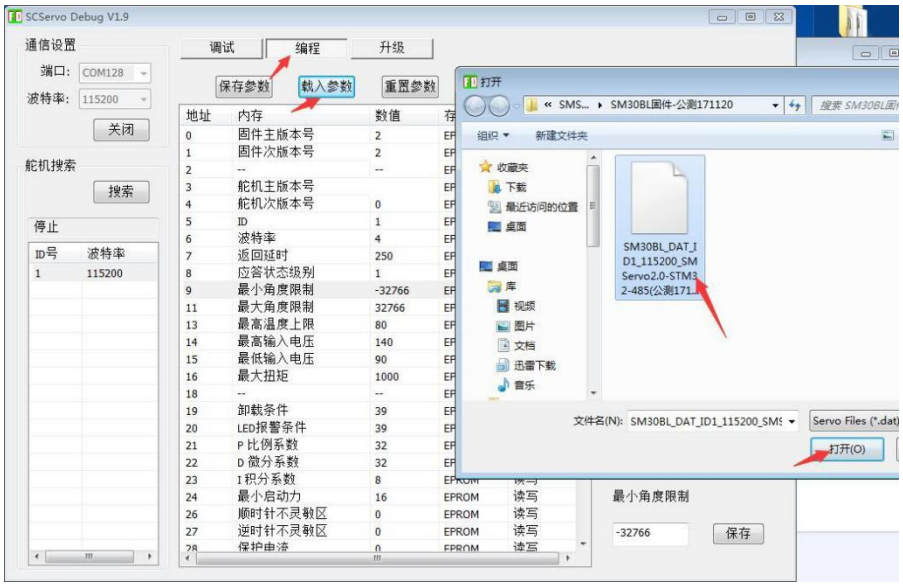
overload protection, Address:34-36

Over heating protection,Address:13

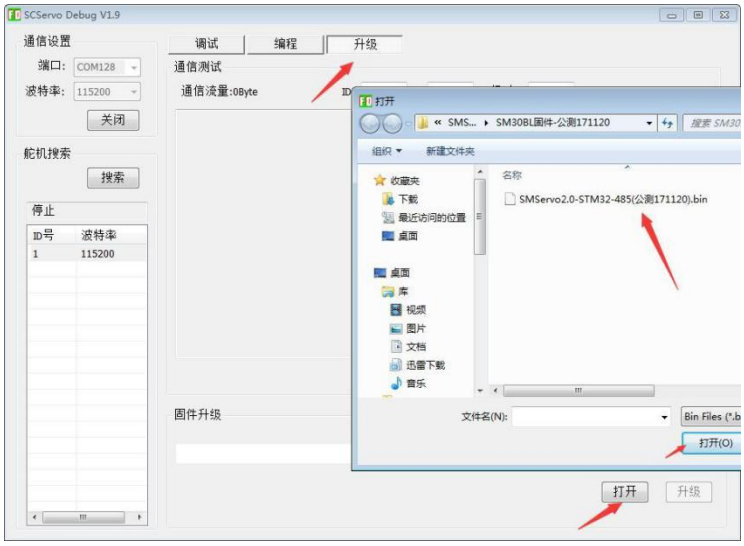
Overcurrent protection,Address:28

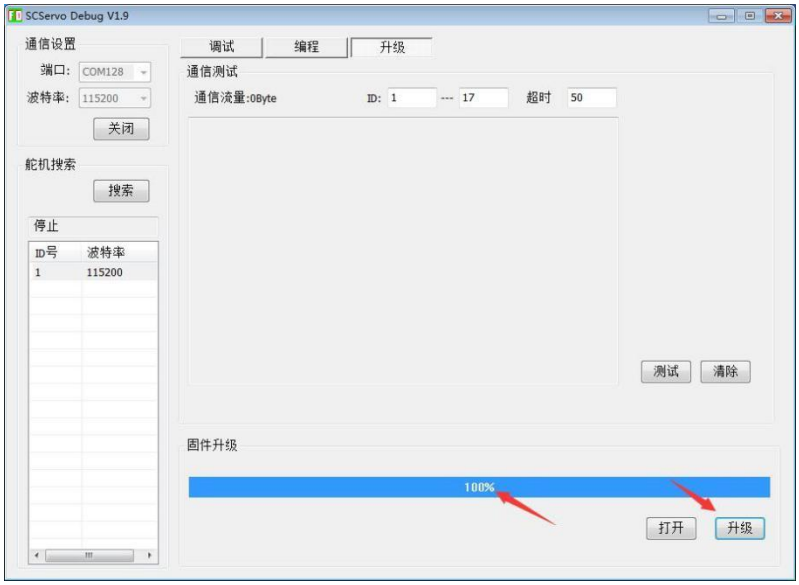
Overvoltage protection,address:14-15

13.How to load servo parameter:



14.If Update Firmware





Explaination:

1.The parameters in the above programming are FD software reading the parameters inside the servo.

If you use SCS type or SMCL type,as different function,when FD software reading don't have option at Acceleration, position correction.

2.When first time use the servo，please connect according to instruction Illustration，Don't be too hasty and mishandle Positive and negative connection of power supply,cause servo short-circuit and damage the computer hardware.

3.If you are familiar with the above tutorials，The servo is rotating in your careful operation,Congratulations you had learned to control Feetech servo in easy way.

Next, if you want to enter a professional model,in other ways like Arduino/STM32/PC/JAVA/C++/C# control。We have prepared the communication protocol, memory table, serial debugging assistant and so on for your reference.

4.Feetech servo divided into three series:

Feetech servo		Motor type	Communication level	communication protocol	Memory table	Model number
SCS series		Carbon brush/ coreless	TTL	SCS1.1 manual(170306)	SCS1.1 Memory table(170307)	SCS009/SCS45/SCS25/SCS15/SCS115 SCS2332/SCS215/SCS40/SCS40-DS/SCS6560
SMS series	SMCL series	carbon brush/ coreless	RS485	SMS1.0 manual(170301)	SMS1.0 Memory table(170720)	SM30-360M/SM60/SM80/ SM100/SM150
	SMBL series	brushless	RS485		SM30BL-SMS1.0 memory table (171120)	SM30BL/SM40BL

Note：

The communication protocols of the three series are identical and interworking.