# How to use the new firmware

The way to use the new firmware is similar with using the old firmware. Meanwhile, the protocol for large current encoding driver is same with the new firmware, and the method of use is same. Here we only listed the differences between using the new firmware and the old firmware.

1. Source code

[https://github.com/Makeblock-official/Me\_EncodeDriver/tree/master/EncodeDriver-New](https://github.com/Makeblock-official/Me_EncodeDriver/tree/master/EncodeDriver-New/slave)

[https://github.com/Makeblock-official/Me\_EncodeDriver/tree/master/EncodeDriver-HighPower](https://github.com/Makeblock-official/Me_EncodeDriver/tree/master/EncodeDriver-Old)

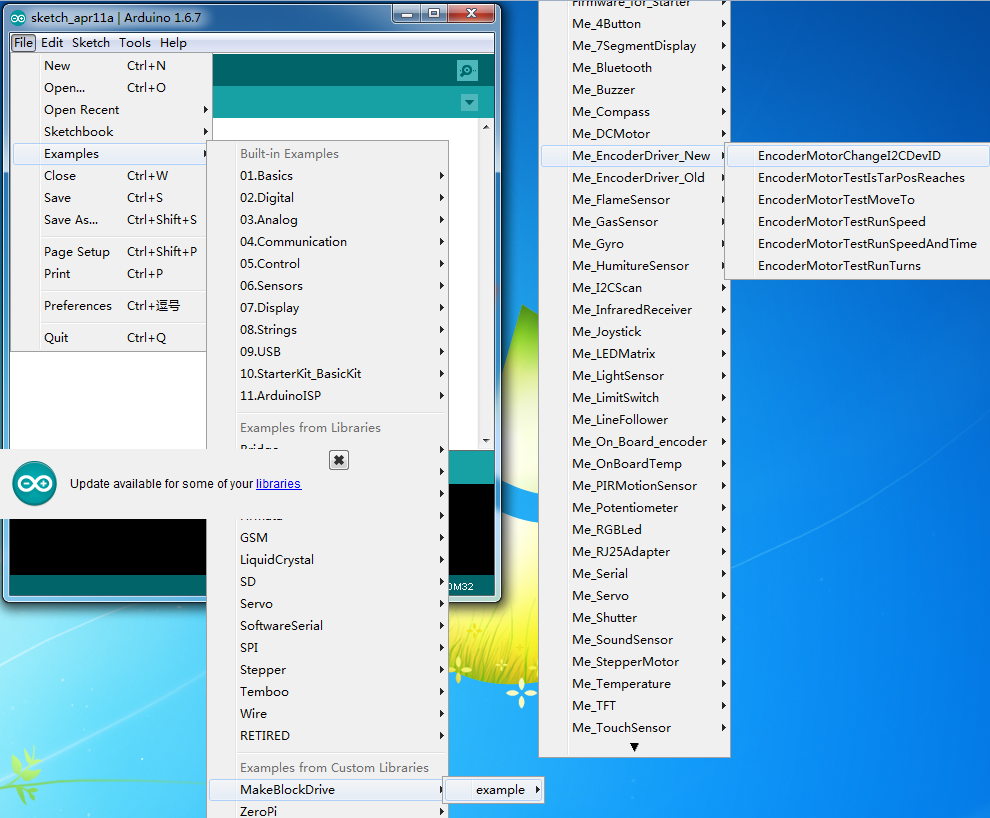
1. Pogram Samples

If you have already installed the makeblock driver library according to the instruction, then after you opened the Arduino, you can see Example->MakeBlockDrive, in this content, you can see the file Me\_EncoderDriver\_New and there are 6 simple demo programs. Uploading any one of the demo programs to your BaseBoard/Orion/UNO Shield Board can achieve testing the motor and motor driver. You can also edit your own application refer to the demo programs.

In the demo program, there is a program when creating an object:



The 0x09 in this program is the I2C address on the driver board, the factory default I2C address must be 0x09 if you have never modified it through any tool.

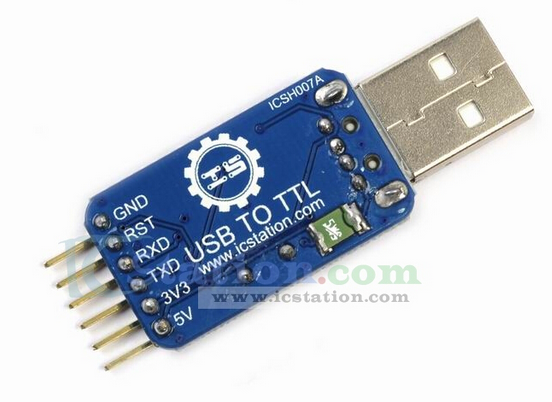


# How to upgrade the firmware

## 2.1 How to Upgrade firmware for Large current coding motor driver

USB transfer to serial tool is needed when upgrading Large current coding motor driver. Since the Large current coding motor has its own reset button, you can buy any USB transfer to serial module.

## How to Upgrade firmware for small current coding motor driver

USB transfer to serial tool is needed when upgrading small current coding motor driver. Duo to the module need a reset during upgrading process, please buy the serial tool with reset pin when choosing the serial module. Since there are a lot of module without reset pin for sell, please pay attention to this.

Show as above picture, picture on the left doesn’t have the reset pin, so it is difficult to do

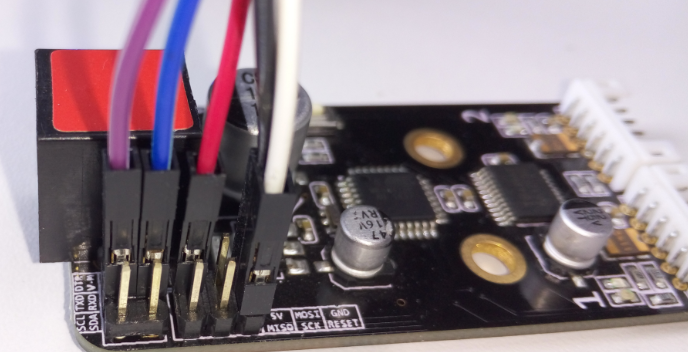
Fool-operation when upgrading the module with boot-loader.

The address of code for new firmware:

<https://github.com/Makeblock-official/Me_EncodeDriver/tree/master/EncodeDriver-New/slave>

According to the identification on module silkscreen as well as the identification on your serial tool, connect the driver module and the serial tool together. There are five lines need to be connected, TXD, RXD, 5V, GND, RESET. The TXD and RXD may need be connected to RXD and TXD of serial tools.

Below is the image after connected:



Then open the file EncodeDriver-New\slave\slave.ino through Arduino, choose Arduino uno under Tools-Board, then choose the correct COM port, now you can update the firmware by the common way for Arduino UNO.

