

7.3、Flash factory firmware

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7.3.1、Factory Firmware Instructions

The K210 official bare metal version SDK does not support MicroPython, you need to download the firmware supported by CanMV to use MicroPython. The factory firmware of the K210 development board is modified on the basis of the K210 official CanMV project, and the peripheral functions have been adapted before leaving the factory.

The K210 development board does not flash the factory firmware of the microPython version before leaving the factory. If you want to use the microPython version, you must download and burn the latest firmware yourself before you can use it.

The factory firmware only provides bin burning files, not source code. If you need to learn the MicroPython underlying firmware source code of K210, you can open the following website to learn the official CanMV project:

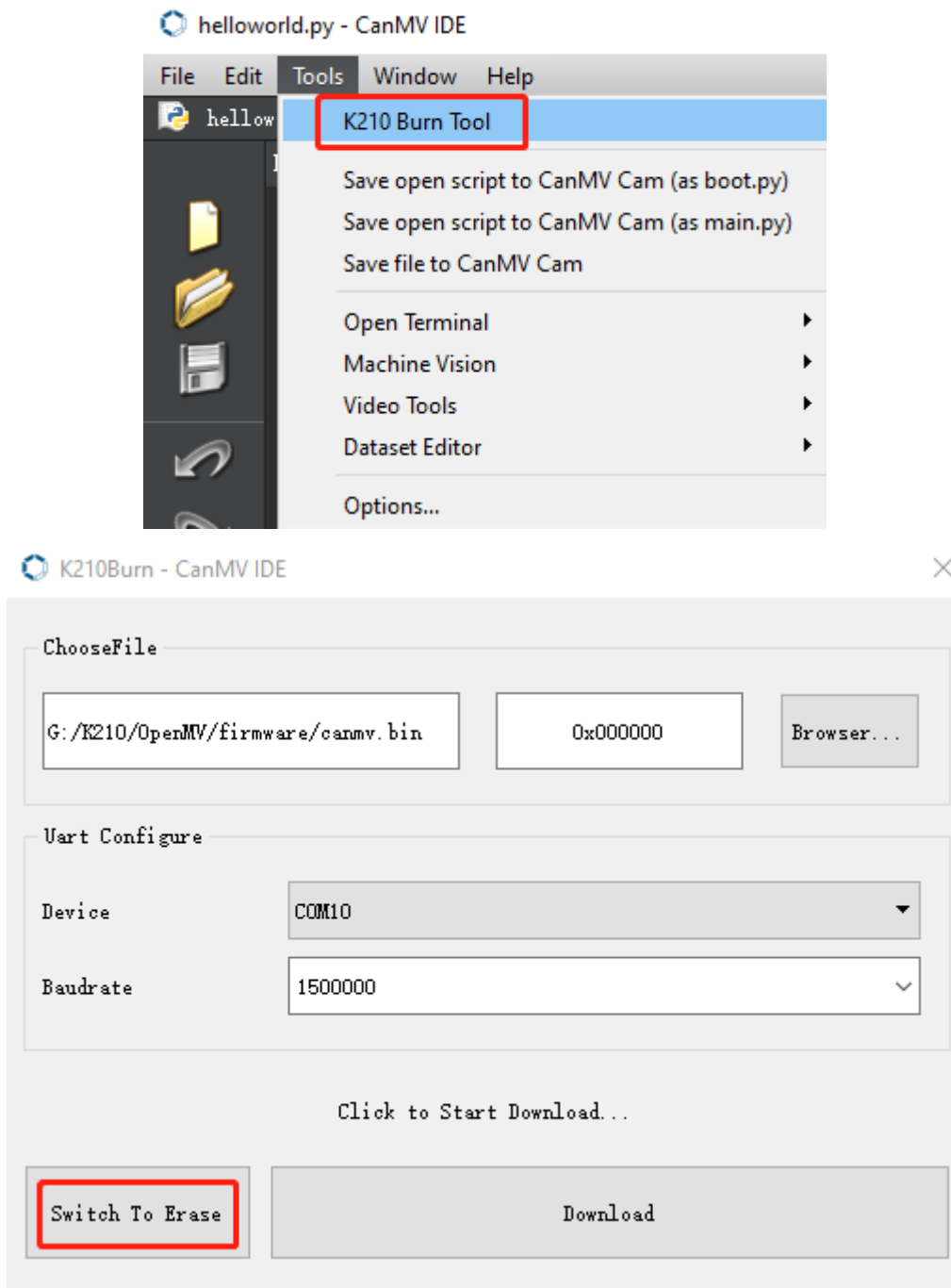
<https://github.com/kendryte/canmv>

7.3.2、Clear the chip firmware program

In order to restore the factory firmware settings, please perform a full chip erase operation before flashing the factory firmware

Note: This step will clear the Flash program space of the K210 development board. After clearing the program space, please flash the firmware again to connect to CanMV IDE.

In CanMV IDE, click `Tools -> K210 Burning Tool -> Switch to Erase`.



In the erase setting, select the mode as `whole chip Erase`, select the serial port number of the K210 development board, and click `Erase` to start clearing the program space.

K210Burn - CanMV IDE

EraseSettings

Mode

FullChip Erase

Addr

0x000000

Size

4

KiB

Template

LoadTemplate

Uart Configure

Device

COM10

Baudrate

1500000

Click to Start Erase...

Switch To Burn

Erase

After the erasing is complete, switch to the burning interface to flash the firmware again

K210Burn - CanMV IDE

EraseSettings

Mode

FullChip Erase

Addr

0x000000

Size

4

KiB

Template

LoadTemplate

Uart Configure

Device

COM10

Baudrate

1500000


FlashISP Erase Flash Succ.

Switch To Burn

Erase

7.3.3、Flash factory firmware

Find the `Factory Firmware` under the `Program Source Summary` folder in the provided information, the name is `canmv_yahboom_vx.x.x.bin`, where `vx.x.x` is the version number. Here we take burning `v2.0.5` firmware as an example.

	canmv-dev-kit-V2.0.5.bin	2023/3/13/周一 19:14	BIN 文件	2,016 KB
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Click `Browse` and select the firmware file to be burned. The burning address in the middle does not need to be changed. The default is `0x000000`. In `Serial Port`, select the serial port number of the K210 module, and then click `Download`.

K210Burn - CanMV IDE

ChooseFile

ry firmware/canmv_yahboom_v2.0.6.bin

0x000000

Browser...

Uart Configure

Device

COM10

Baudrate

1500000

Click to Start Download..

Switch To Erase

Download

Wait for the firmware burning to complete, and it will prompt `FlashISP has successfully written to Flash.`

K210Burn - CanMV IDE

ChooseFile

ry firmware/canmv_yahboom_v2.0.6.bin

0x000000

Browser...

Uart Configure

Device

COM10

Baudrate

1500000

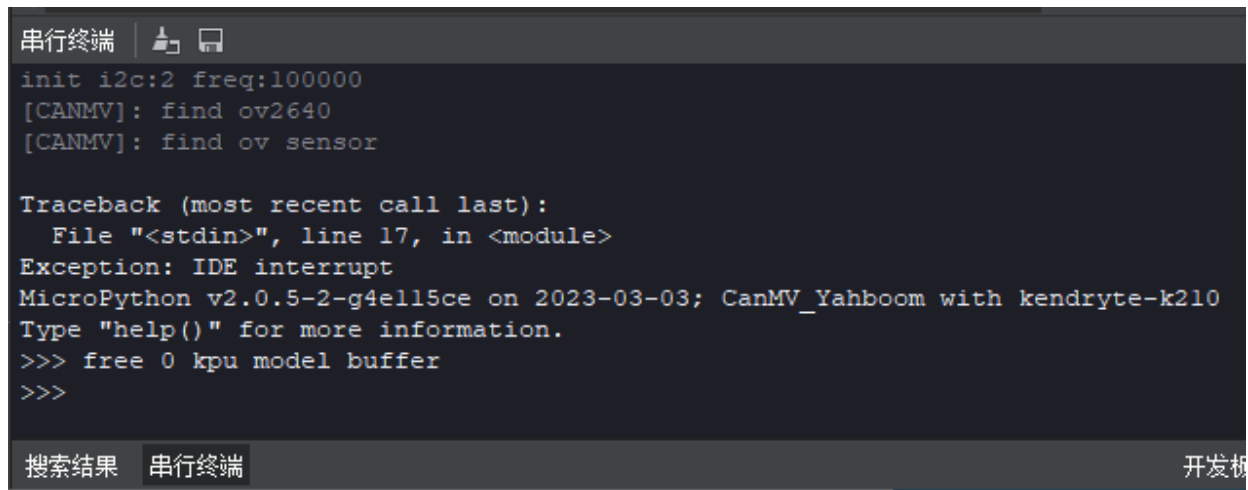
FlashISP Write Flash Succ.

Switch To Erase

Download

7.3.4、Check the firmware version number

Connect the K210 development board to the CanMV IDE, then click the serial terminal at the bottom of the IDE, and print out the current version number every time the program finishes running:



```
串行终端 | 📄 🖨️
init i2c:2 freq:100000
[CANMV]: find ov2640
[CANMV]: find ov sensor

Traceback (most recent call last):
  File "<stdin>", line 17, in <module>
Exception: IDE interrupt
MicroPython v2.0.5-2-g4e115ce on 2023-03-03; CanMV_Yahboom with kendryte-k210
Type "help()" for more information.
>>> free 0 kpu model buffer
>>>
```

搜索结果 串行终端 开发板

You can also connect the K210 development board to the serial port assistant, and use the serial port assistant to view the printed information.

Note: For the use of the serial port assistant, refer to the 10.1 tutorial case

