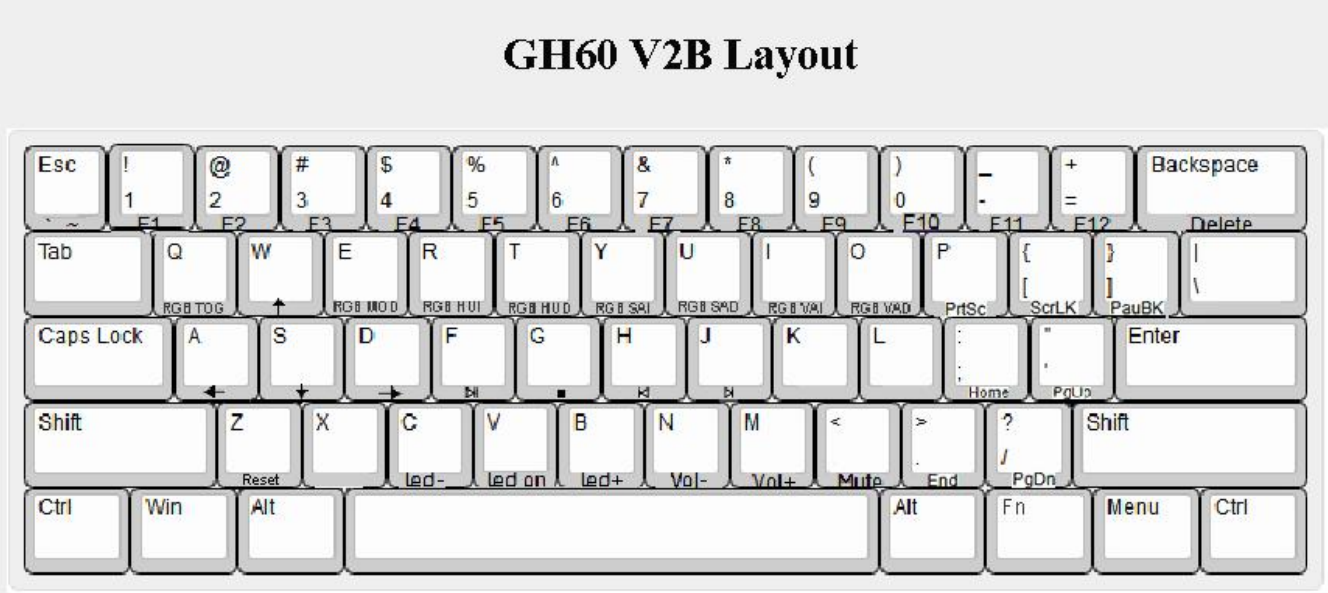
QMK Instruction

QMK File Editing

Our purpose is to modify layout “gh60v2a.json”

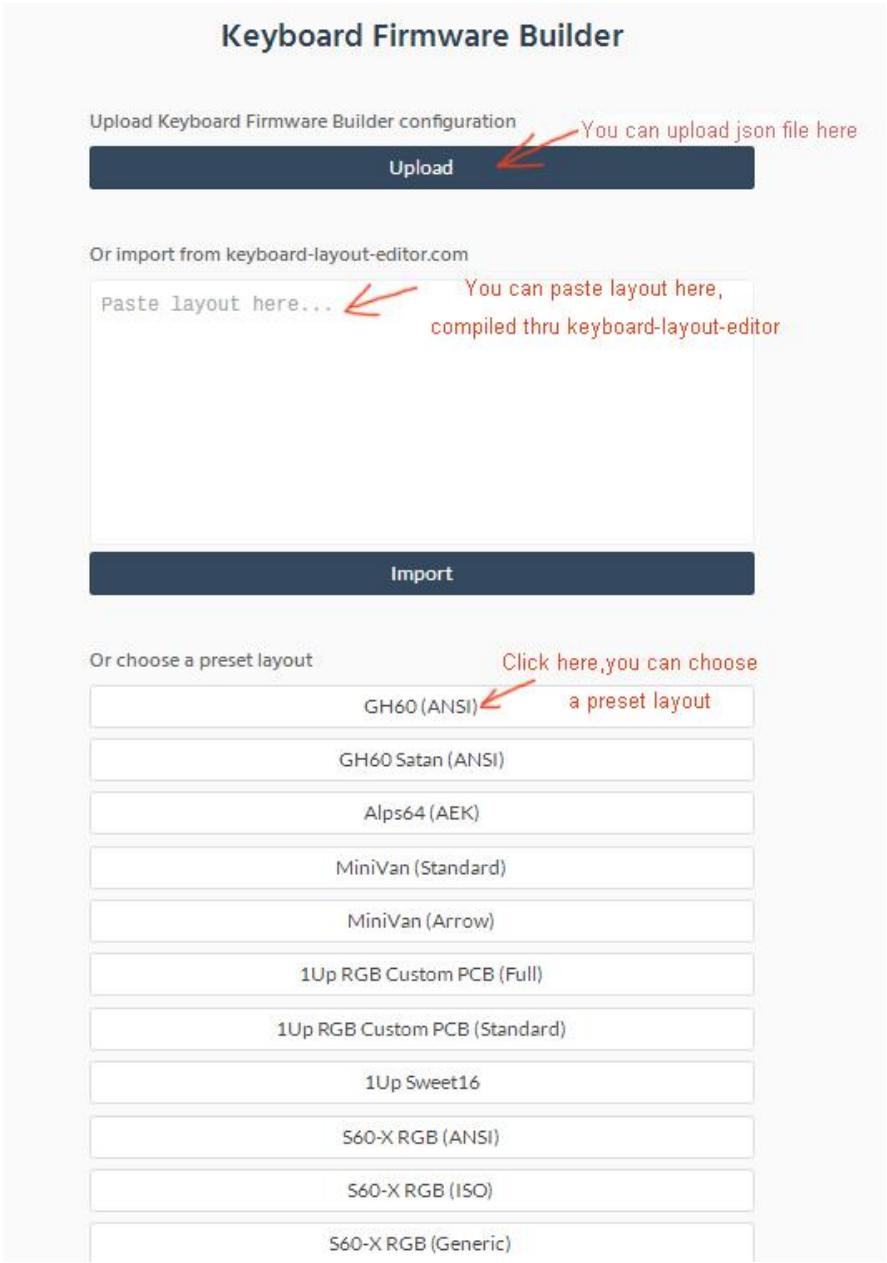
To be gh60v2b default layout below



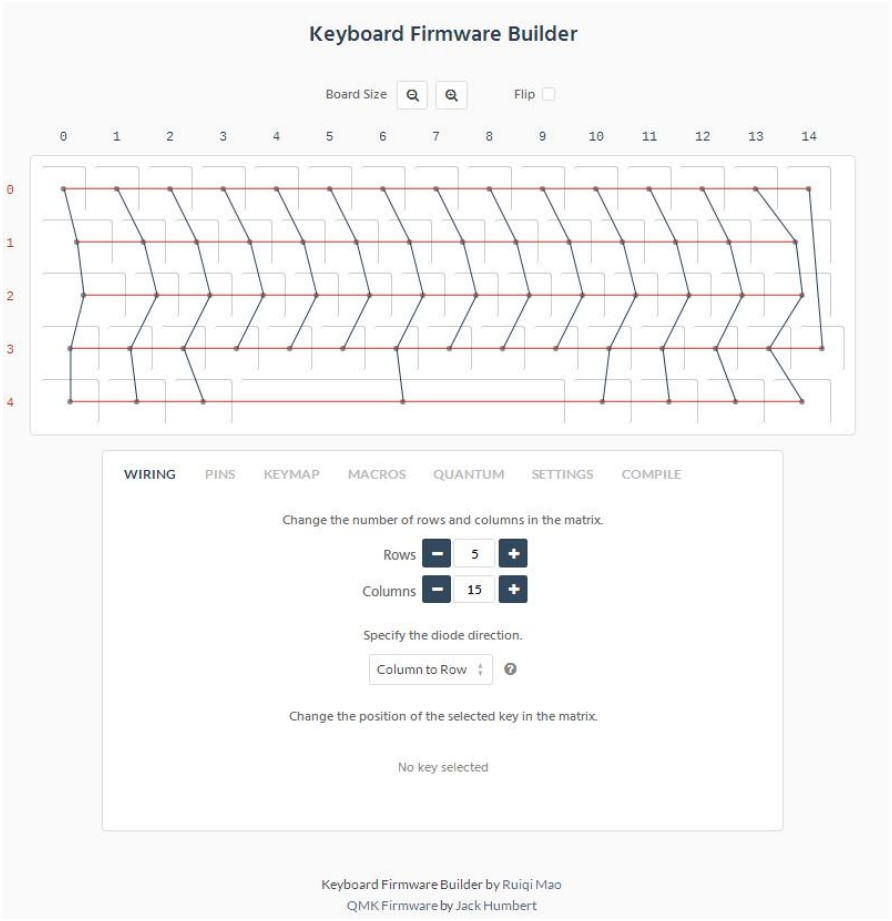
1.We upload the file gh60v2a.json, I compiled it by “TMK Editor” long time ago.

(1) Open website: http://kbfirmware.com/

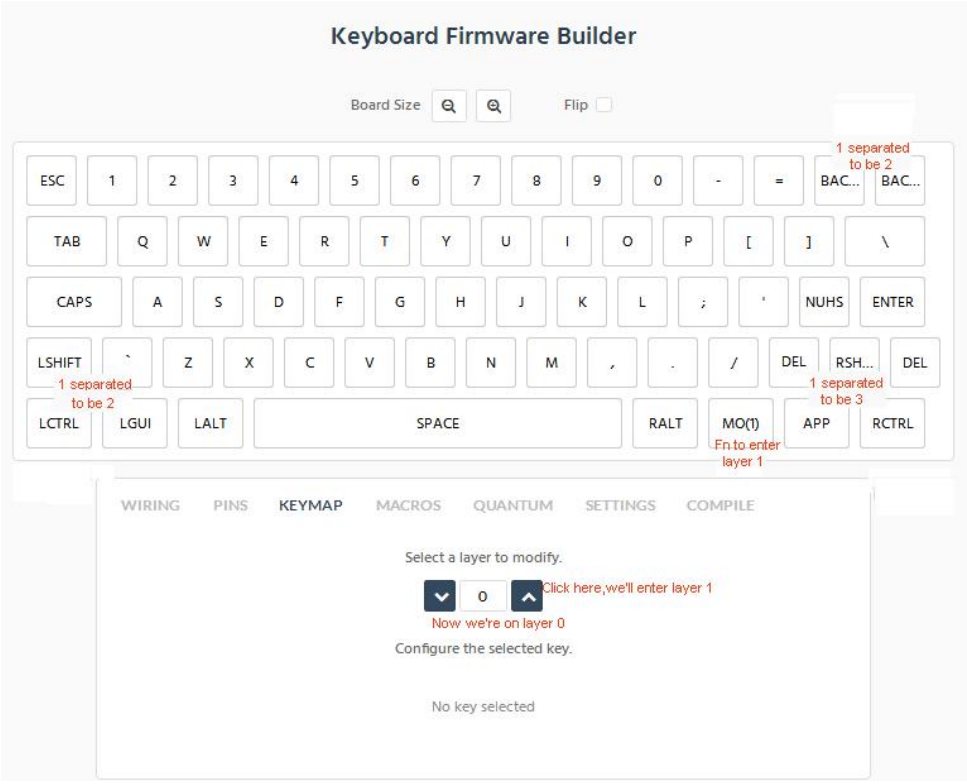
Click “Upload” in the blue box,go to file “QMK.Flasher-darwin-x64-0.5.2”,choose and upload file “gh60v2a.json”.



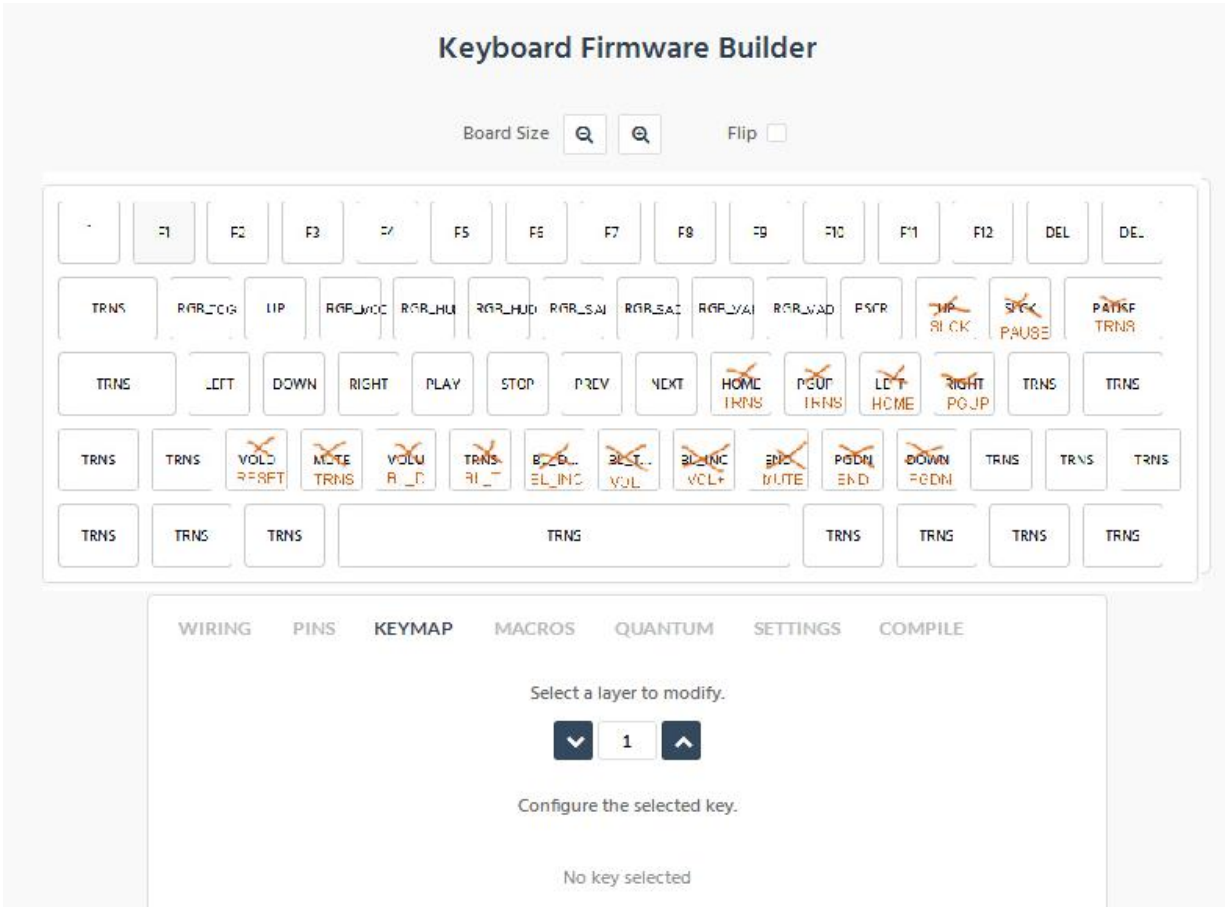
You'll see columns below:
WIRING,PINS,KEYMAP,MACROS,QUATUM,SETTINGS,COMPILE
Here we only introduce KEYMAP,SETTINGS,COMPILE



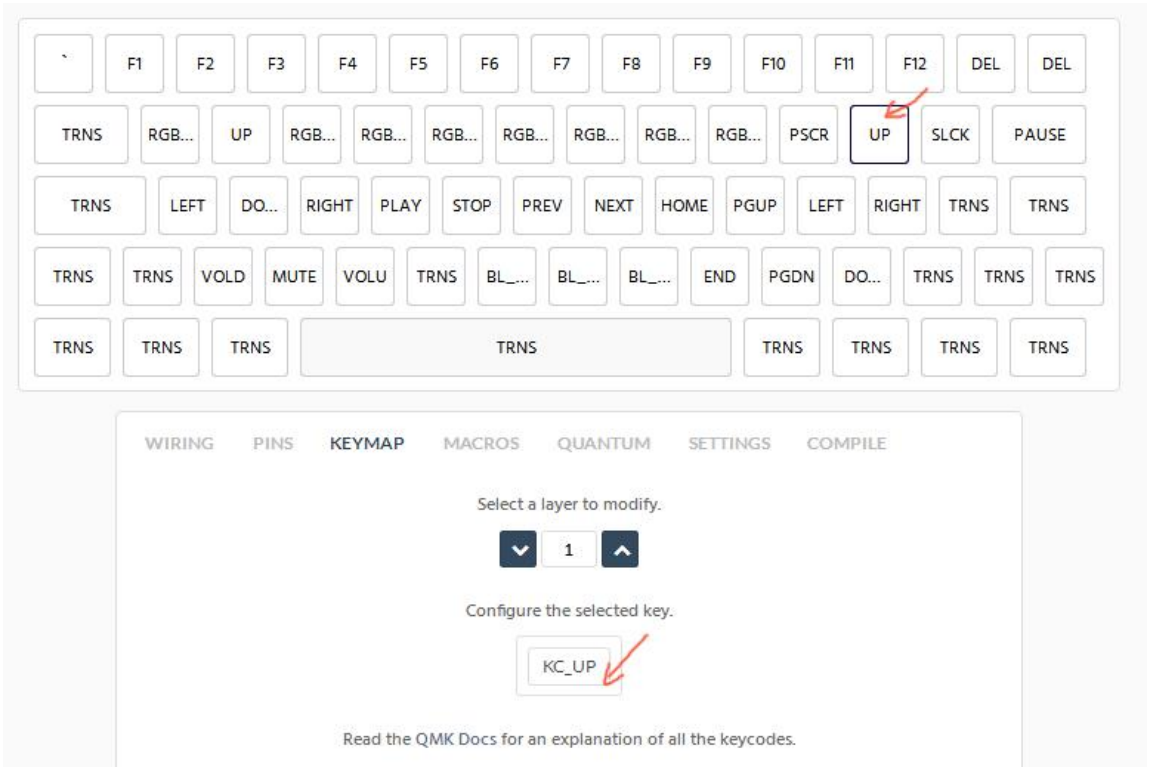
(2) Click"KEYMAP",we have following,you can see,
Layer 0 layout is the same with our "GH60 V2B Layout"----we don't change it.

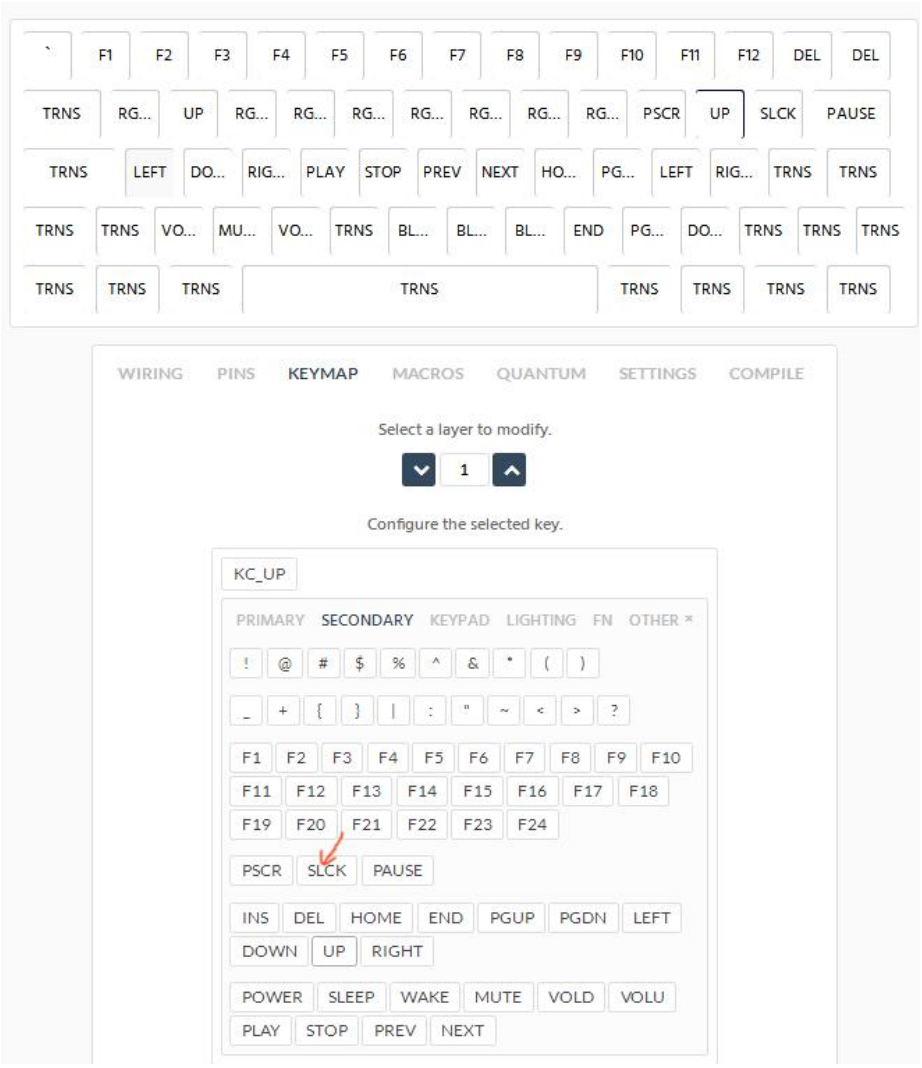


(3) Click the blue "up arrow",then we enter layer 1 as the following.

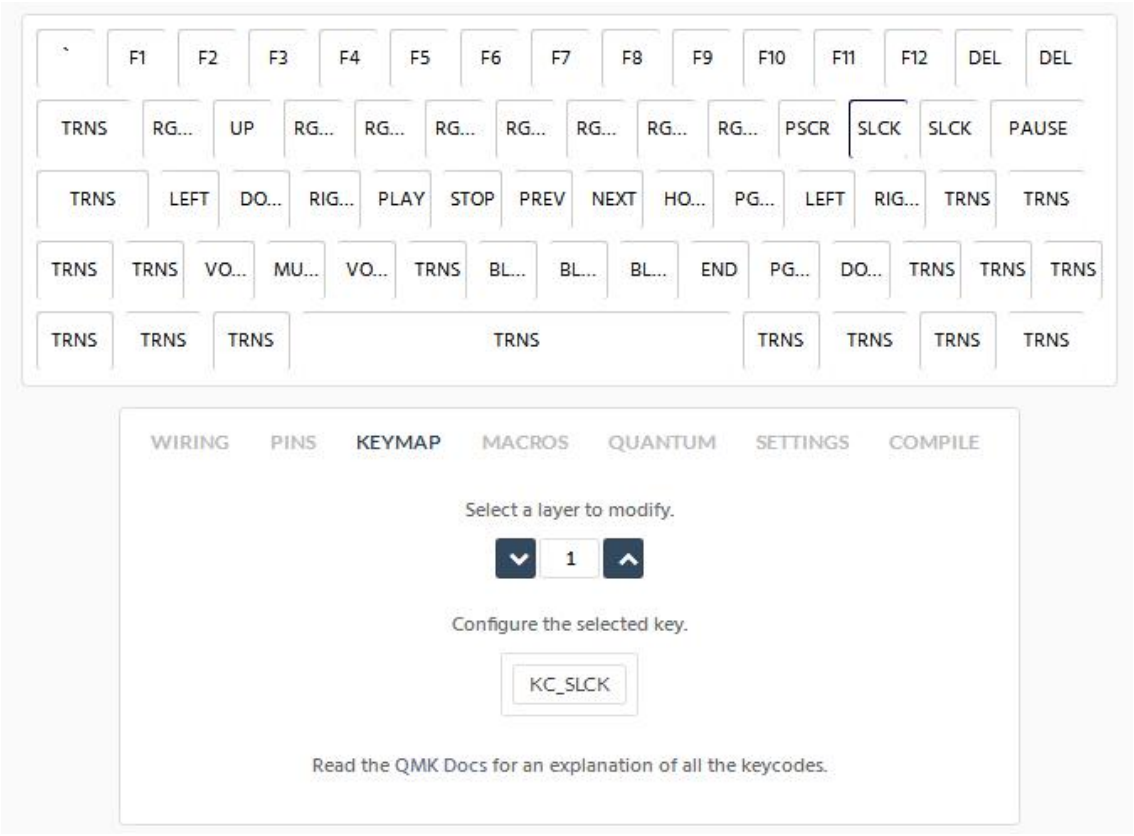


(4)Now we need to change layer1 layout to be our “GH60 V2B Layout”(as the red legends.)
Eg.change “UP” to be “SLCK”
Click “UP”--”KC_UP”--”SLCK”
You need to find this “SLCK” in
“PRIMARY”--main keys zone,
”SECONDARY”--function keys zone,
KEYPAD---keypad zone
LIGHTING--lighting control zone
FN--control zone
OTHER--other



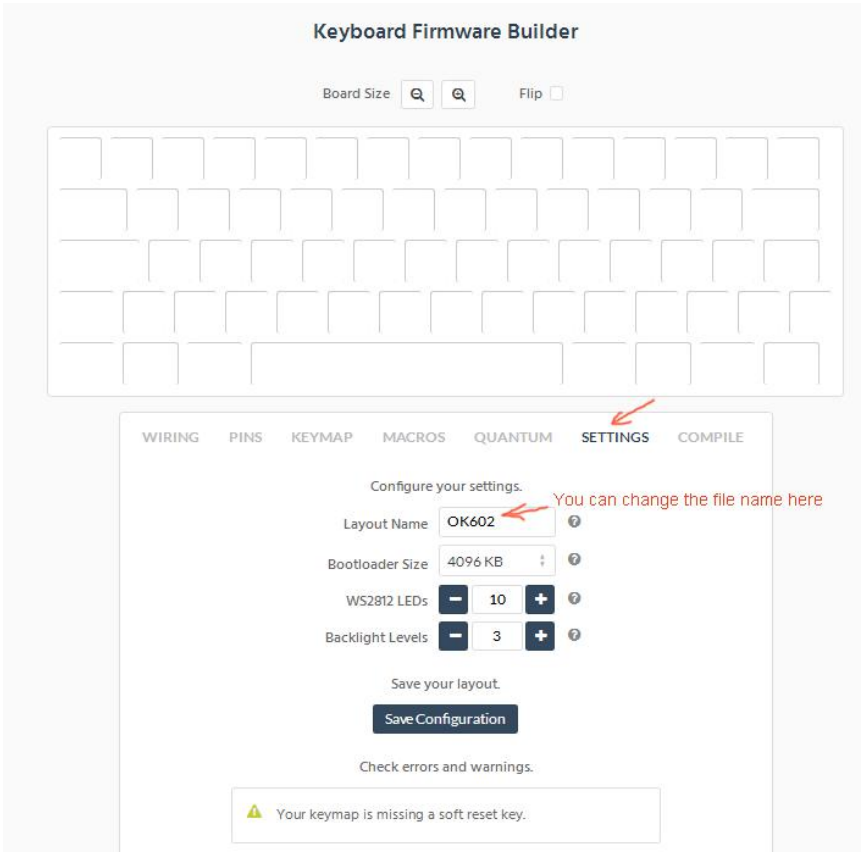


You can see “UP” is changed to be “SLCK”

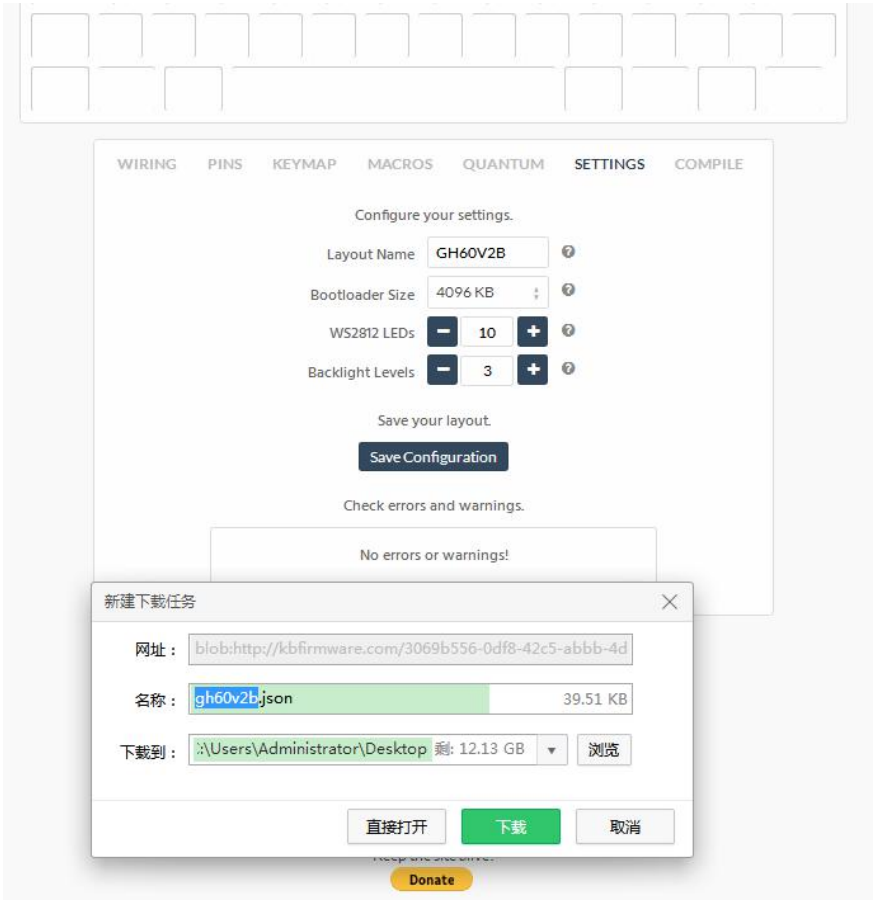


(5)Use the same method to change other key maps.

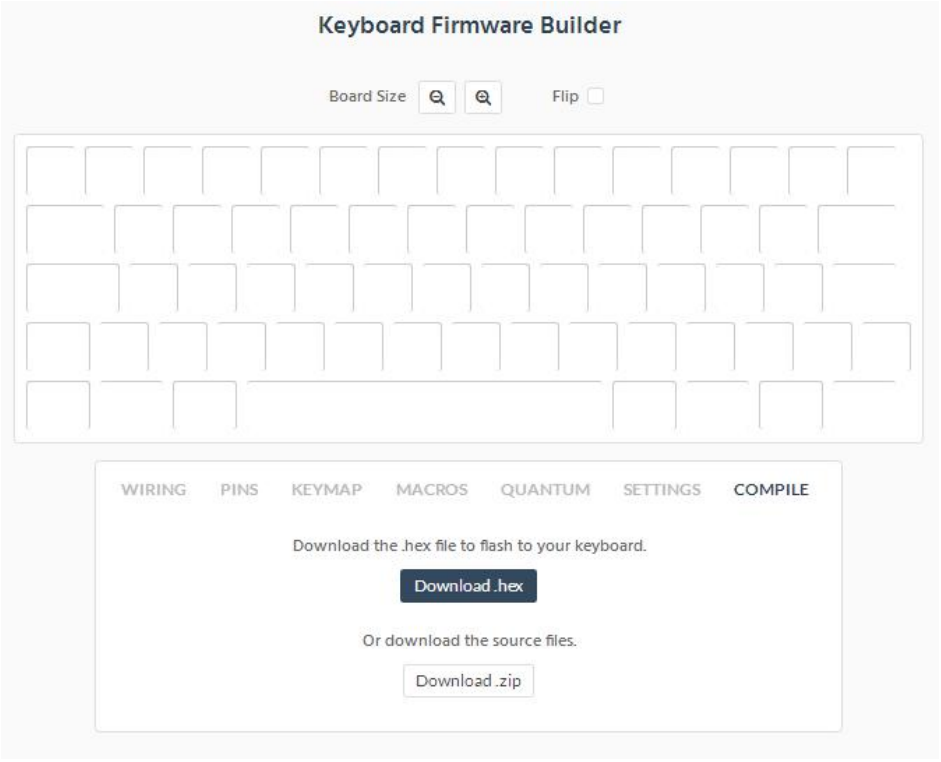
(6) After changed all the keycaps,Click”SETTINGS”



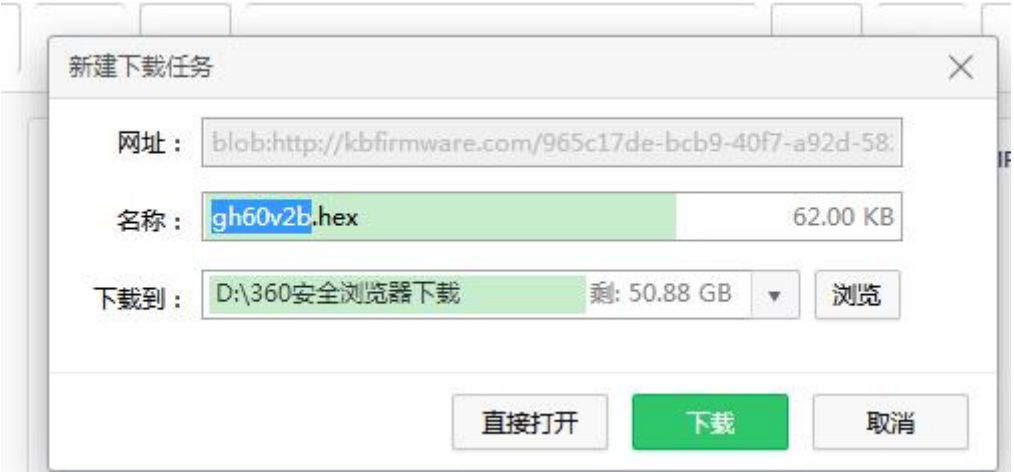
Click “Save Configuration” black letters,name it to be “gh60v2b.json”.
Click “Download”,then you downloaded the .json file on computer.



(7)Click “COMPILE”---then click “Download.hex”

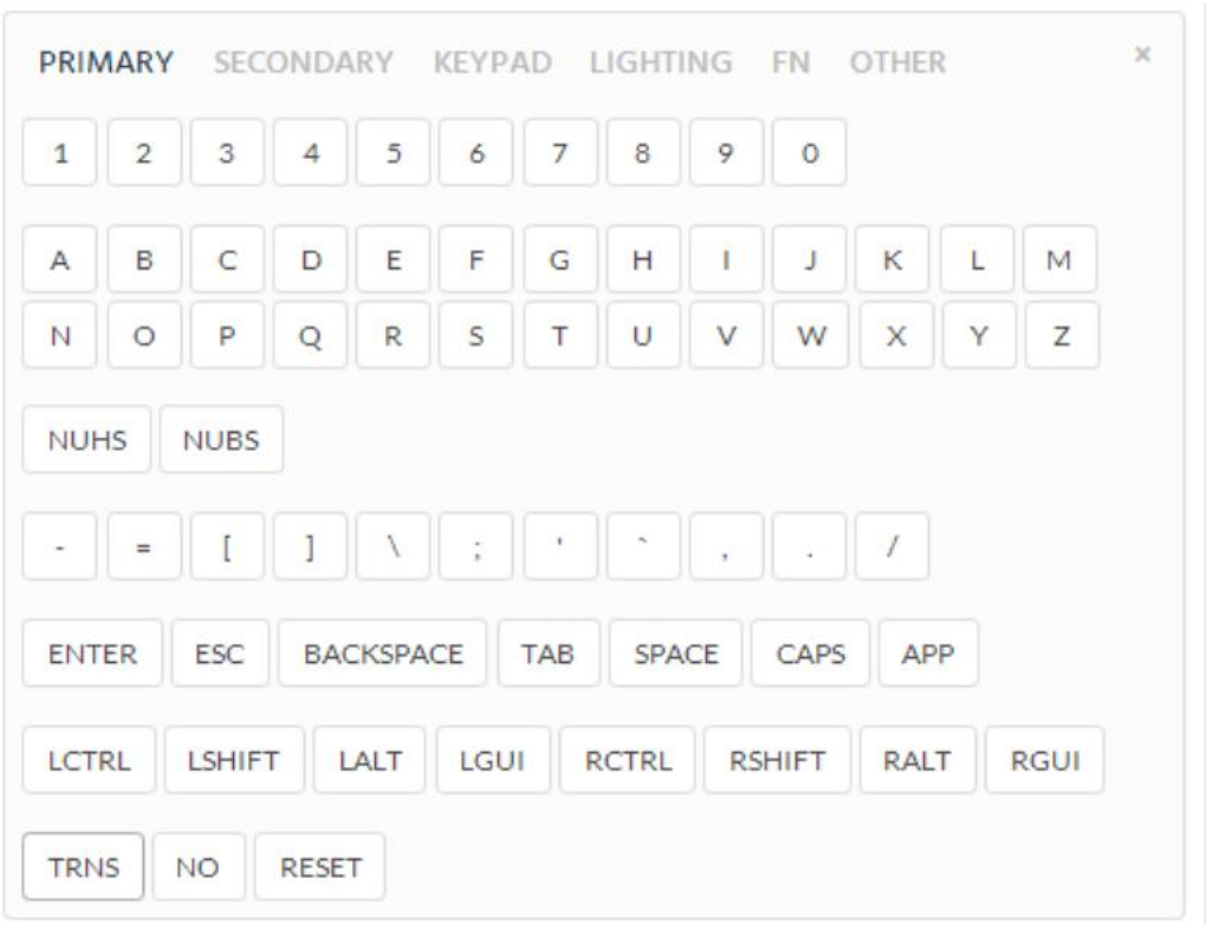


(8) Download and save it(Name gh60V2b.hex) on computer.



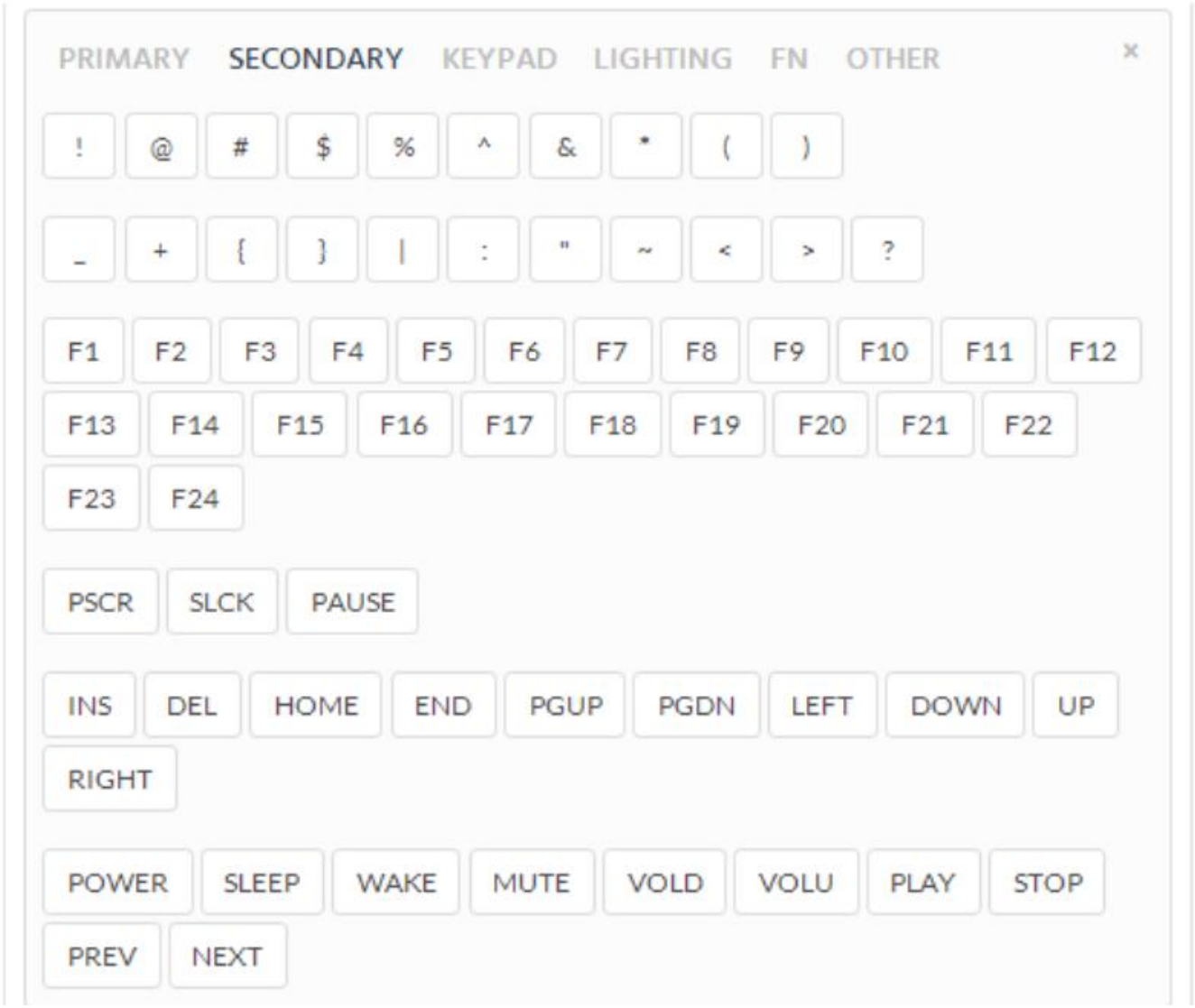
2. Details of some terms(Ref)

(1)PRIMARY

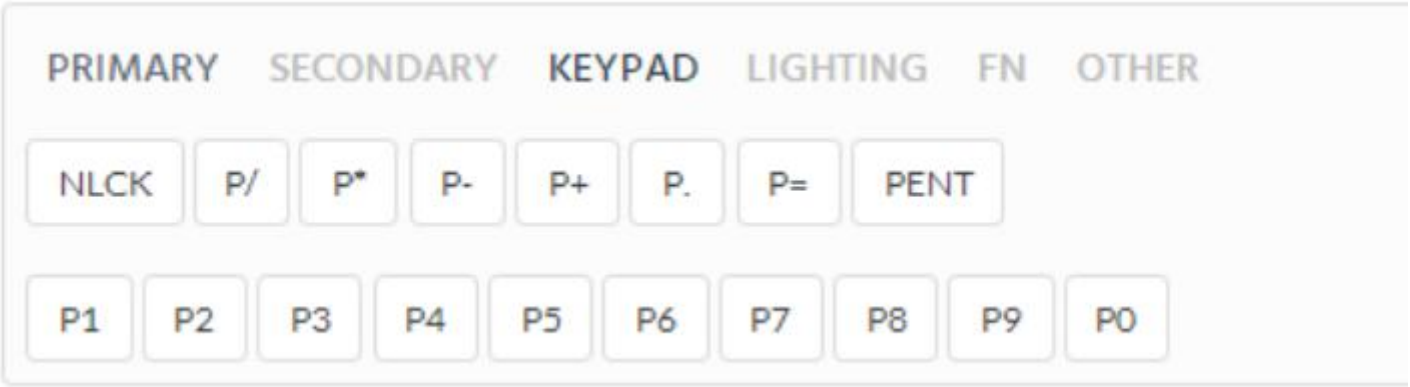


RESET: Like the button on the back of the PCBA
NO: Ignore this key
NUBS: NonUS keys # and ~
**NUHS:NonUS keys | and **

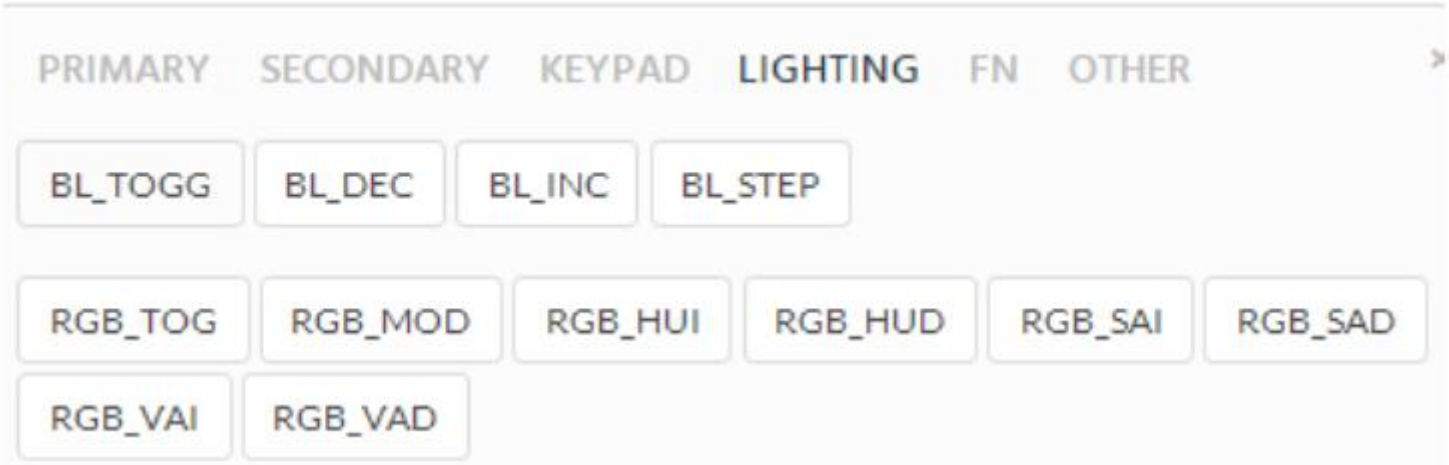
(2)SECONDARY



F1-F24
LEFT,DOWN,UP,RIGHT: 4 Arrows
POWER,SLEEP,WAKE,MUTE,
VOLD:Volume down
VOLU:Volume up
(3)KEYPAD



(4)LIGHTING



BL_TOGG:Top lighting switch
BL_DEC: Top lighting down
BL_INC:Top lighting up
BL_STEP:Top lighting by step
RGB_TOG:Bottom RGB switch
RGB_MOD:Bottom RGB mode
RGB_HUI:Bottom RGB hue increase
RGB_HUD:Bottom RGB hue decrease
RGB_SAI:Bottom RGB saturation increase
RGB_SAD:Bottom RGB saturation decrease
RGB_VAI:Bottom RGB brightness increase
RGB_VAD:Bottom RGB brightness decrease

(5)FN

- **Key combinations**
  - ***LSFT(kc)*** – left shift+*kc*。 e.g. ***LSFT(a)*** =LSHIFT+A
  - ***RSFT(kc)*** – right shift+*kc*。
  - ***LCTL(kc)*** - left ctrl+*kc*
  - ***RCTL(kc)*** – right ctrl+*kc*
  - ***LALT(kc)*** – left alt+*kc*
  - ***RALT(kc)*** - right alt+*kc*
  - ***LGUI(kc)*** – left gui+*kc*
  - ***RGUI(kc)*** - right gui+*kc*
  - ***HYPR(kc)*** –shift+ctrl+gui+alt+*kc*
  - ***MEH(kc)*** –shift+ctrl+alt+*kc*
  - ***LCAG(kc)*** – ctrl+gui+alt+*kc*
  - ***ALTG(kc)*** – ctrl+alt+*kc*

MO(1):temporarily enter layer1,the same function as Fn(1),
If you set key MO(1) on layer0,then on layer1 you can only set it to be TRNS.
If you set a certain key on layer0,then it's blank on layer1,please also set TRNS on layer1.
Eg:Press MO(1) +8(the key on layer0),can get F8,

If you release MO(1),press 8,you'll get 8.

QMK File Re-flash to GH60 V2.0

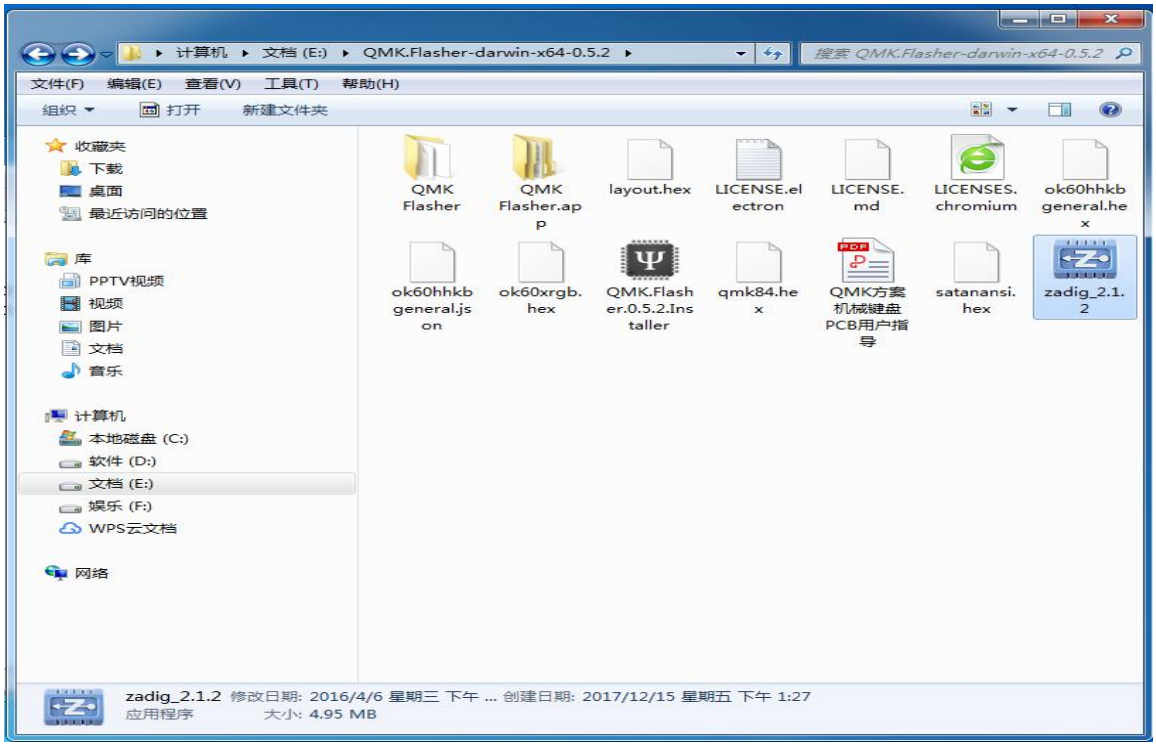
Note:QMK tool can only offline flash .hex file made by QMK editor.

Please decompress the file "QMK.Flasher-darwin-x64-0.5.2"on your computer.

1. Install USB driver "Zadig" for bootloader on the computer.(Windows system.)

(1) Connect the Keyboard to computer,press the metal button on the back of the PCBA(Please disconnect other keyboards powered by Atmega32u4.)

In file "QMK.Flasher-darwin-x64-0.5.2",find "zadig.2.1.2" icon,then click it.

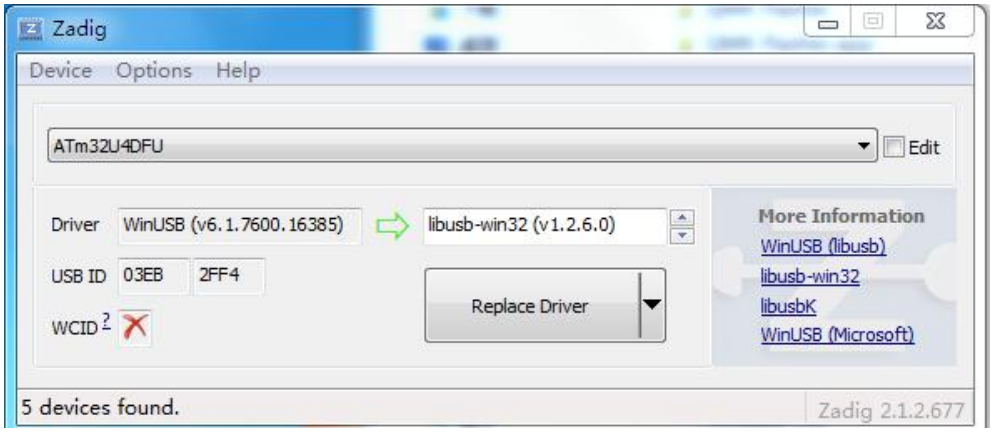


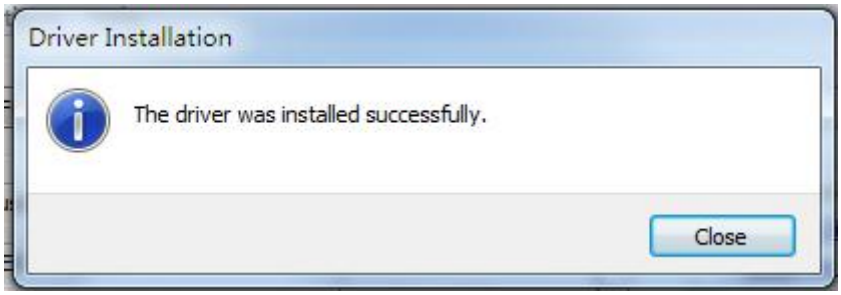
(2) Then following window will appear,Click"Options"---"List all devices"

(3) Then you'll see device "ATm32U4DFU".(Please only select this device.)

Choose "libusb-win32(v1.2.6.0)" at the right side of the blue Arrow, Click "Install Driver" in the below box.Computer will say "Driver has been successfully Installed".

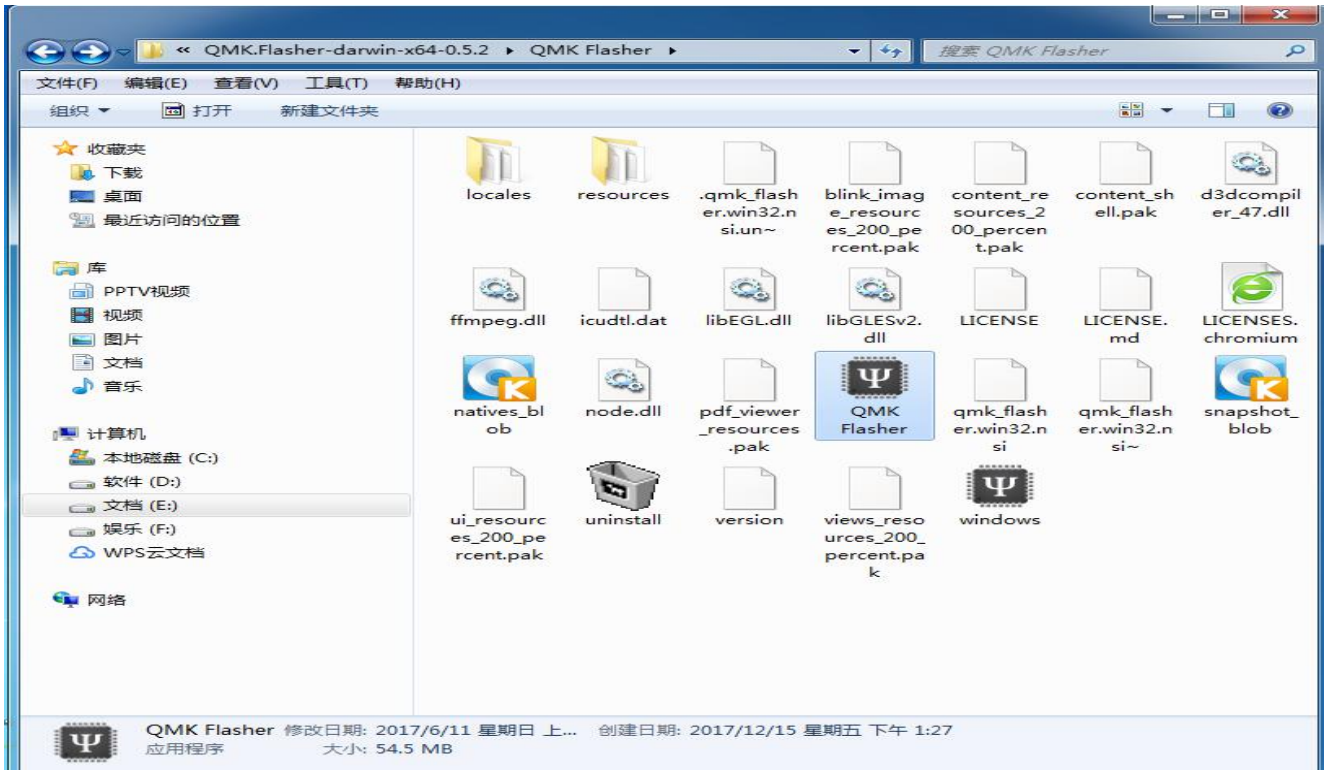
If you're the 2nd time to install driver for Atmega32u4, click "Replce Driver" in the below box.Computer will say "The driver was installed successfully ".



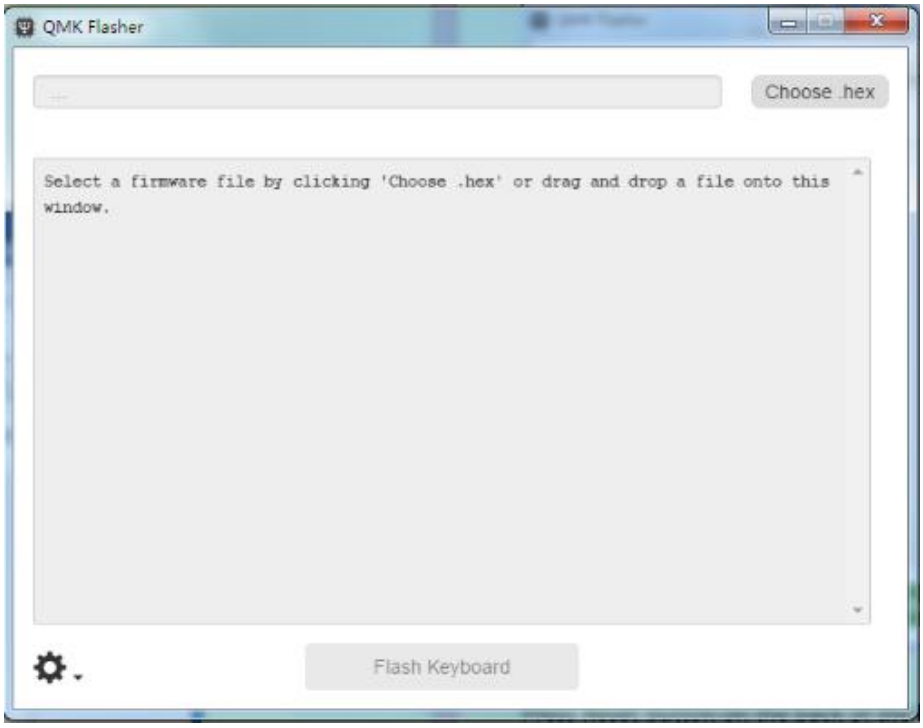


2.Reflash the keyboard.

(1) Enter file“QMK.Flasher-darwin-x64-0.5.2”--“QMK Flasher”,find a icon named “QMK Flasher”,Click it.

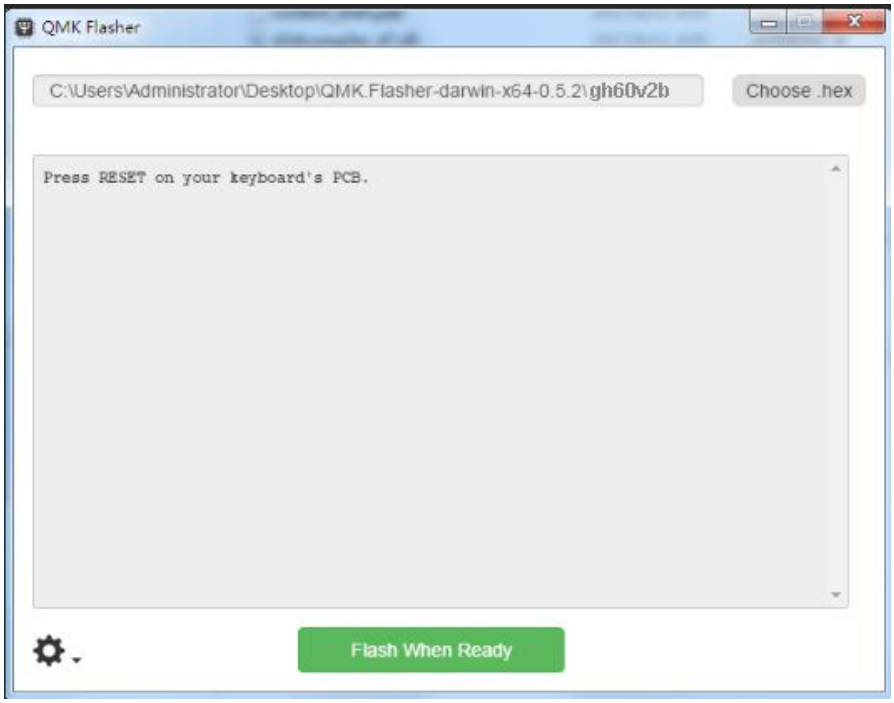


(2)Then following window will appear,Click box “Choose hex”

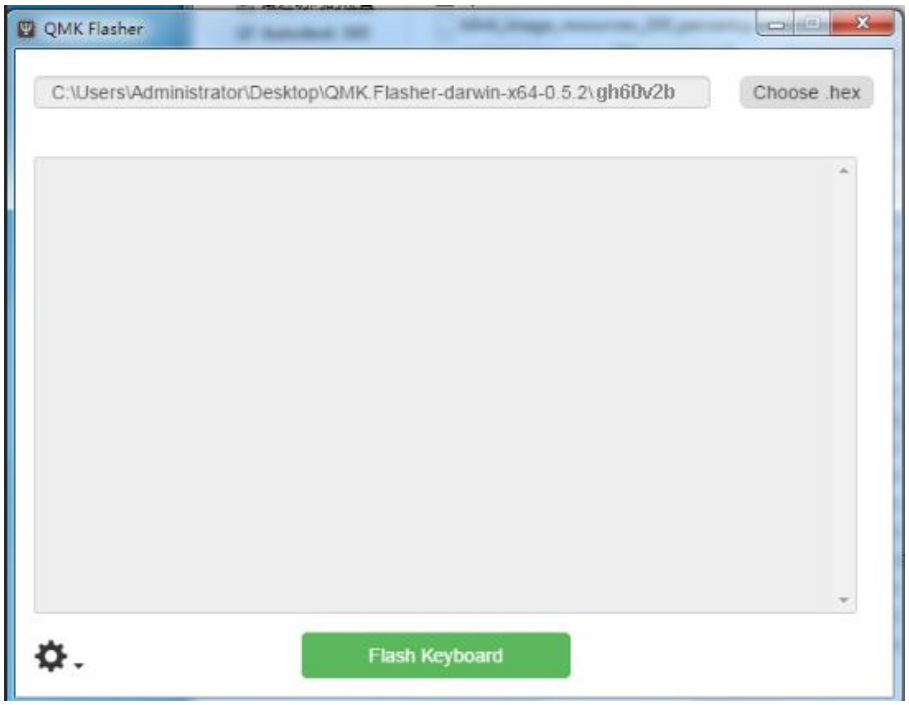


(3)Go to file “QMK.Flasher-darwin-x64-0.5.2”,choose a file named “gh60v2b.hex”

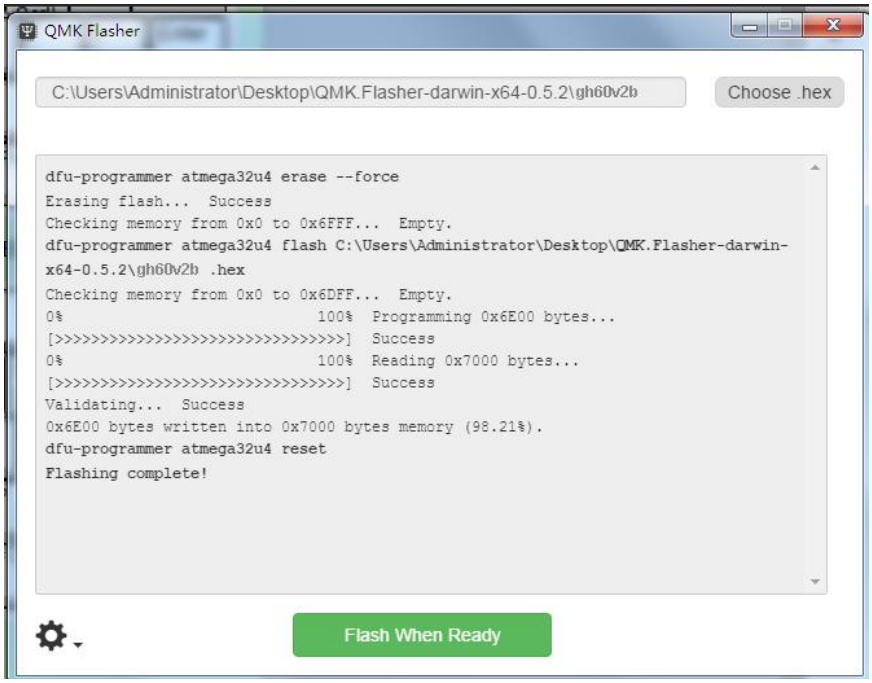
Following window will appear



(4) You can see"Press RESET on your keyboard's PCB".Turn over the keyboard,through a hole to press the metal button for about 2 seconds.(or press "Fn+Z" to reset it.) --Then wait for a long time,till "Press RESET on your keyboard's PCB" disappear.(as following window),
Click "Flash Keyboard"

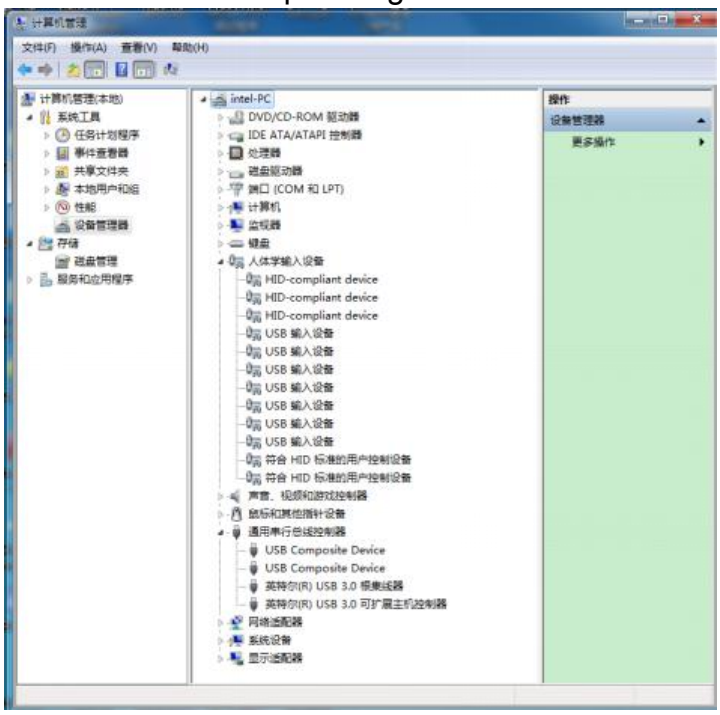


(5) The follwing window indicates Flashing process and Completion.

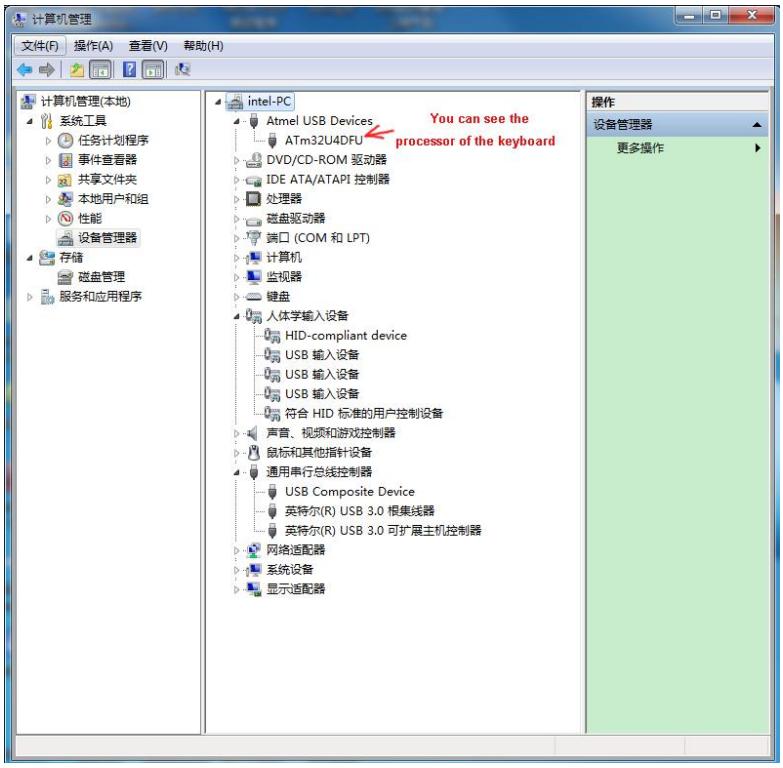


(6)Click the “x” on the right top side to close this window.
You can test the result and compare “gh60V2a with default “gh60V2b” function.

Following is reference only
Monitoring the USB driver:
Computer---Management-Device Manager
When you connect the PCBA with the computer,the following window will flash.
The window before pressing Reset button



The window after pressing Reset button



You can monitor these 2 windows when you flash the PCBA.