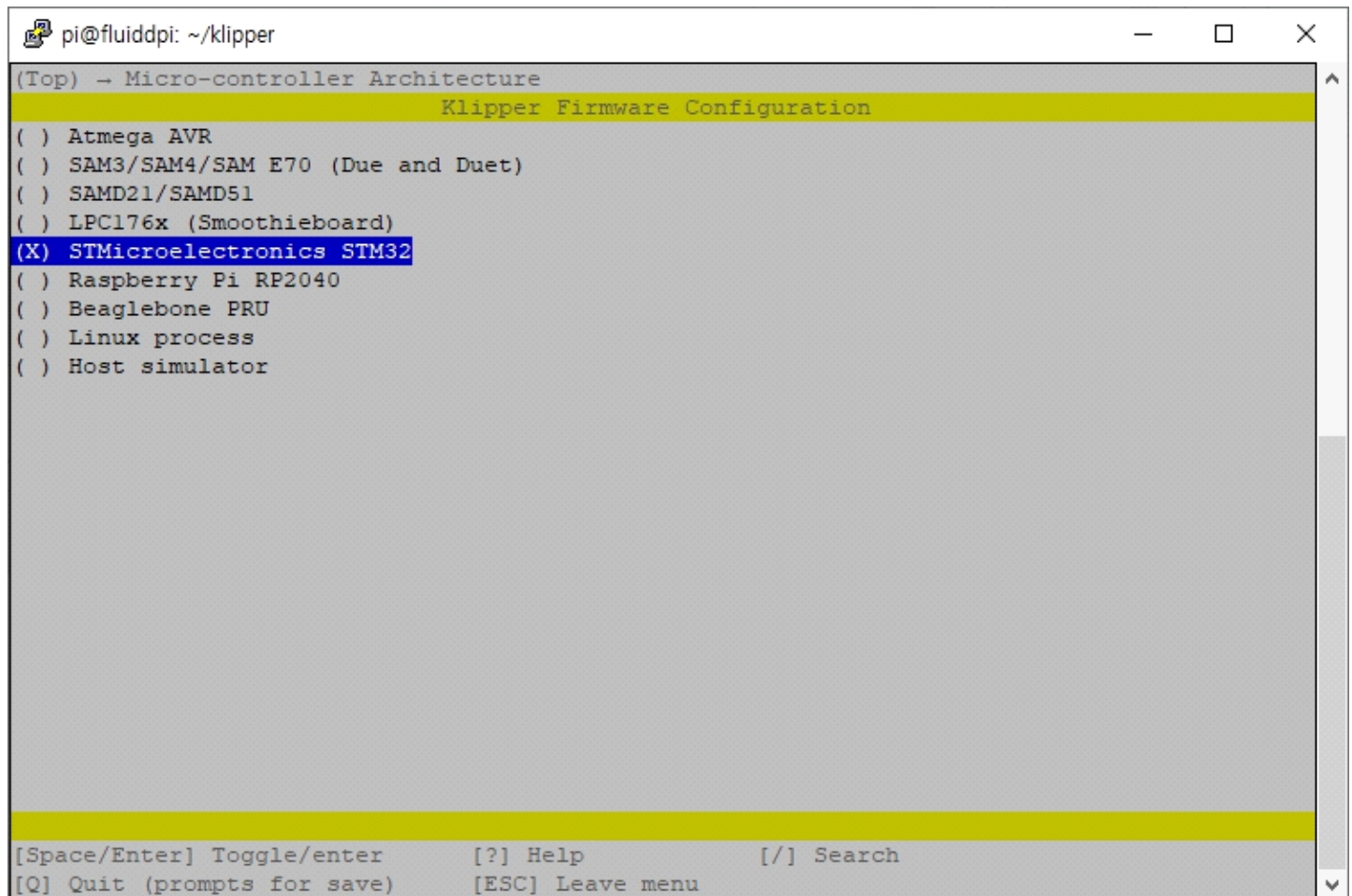# Building and flashing the micro-controller

cd ~/klipper/
make menuconfig

Firmware Configuration

1.STM32 - STM32F103
2.Bootloader offset - 20Kib bootloader
3.Communication interface - USB (on PA11/PA12)

```
pi@fluiddpi: ~/klipper                                            —    □    ✕
(Top) → Micro-controller Architecture
                    Klipper Firmware Configuration
( ) Atmega AVR
( ) SAM3/SAM4/SAM E70 (Due and Duet)
( ) SAMD21/SAMD51
( ) LPC176x (Smoothieboard)
(X) STMicroelectronics STM32
( ) Raspberry Pi RP2040
( ) Beaglebone PRU
( ) Linux process
( ) Host simulator




[Space/Enter] Toggle/enter        [?] Help          [/] Search
[Q] Quit (prompts for save)       [ESC] Leave menu
```

```
pi@fluiddpi: ~/klipper                                                   —    □    ✕

(Top) → Bootloader offset                                                        ^
                        Klipper Firmware Configuration
( ) 8KiB bootloader
(X) 20KiB bootloader
( ) 28KiB bootloader
( ) 32KiB bootloader
( ) 34KiB bootloader (Chitu v6 Bootloader)
( ) 64KiB bootloader
( ) 2KiB bootloader (HID Bootloader)
( ) 4KiB bootloader
( ) 16KiB bootloader (HID Bootloader)
( ) No bootloader




[Space/Enter] Toggle/enter        [?] Help              [/] Search
[Q] Quit (prompts for save)       [ESC] Leave menu                               v
```

```
pi@fluiddpi: ~/klipper                                                   —    □    ✕

(Top) → Communication interface                                                  ^
                        Klipper Firmware Configuration
(X) USB (on PA11/PA12)
( ) Serial (on USART1 PA10/PA9)
( ) CAN bus (on PA11/PA12)




[Space/Enter] Toggle/enter        [?] Help              [/] Search
[Q] Quit (prompts for save)       [ESC] Leave menu                               v
```
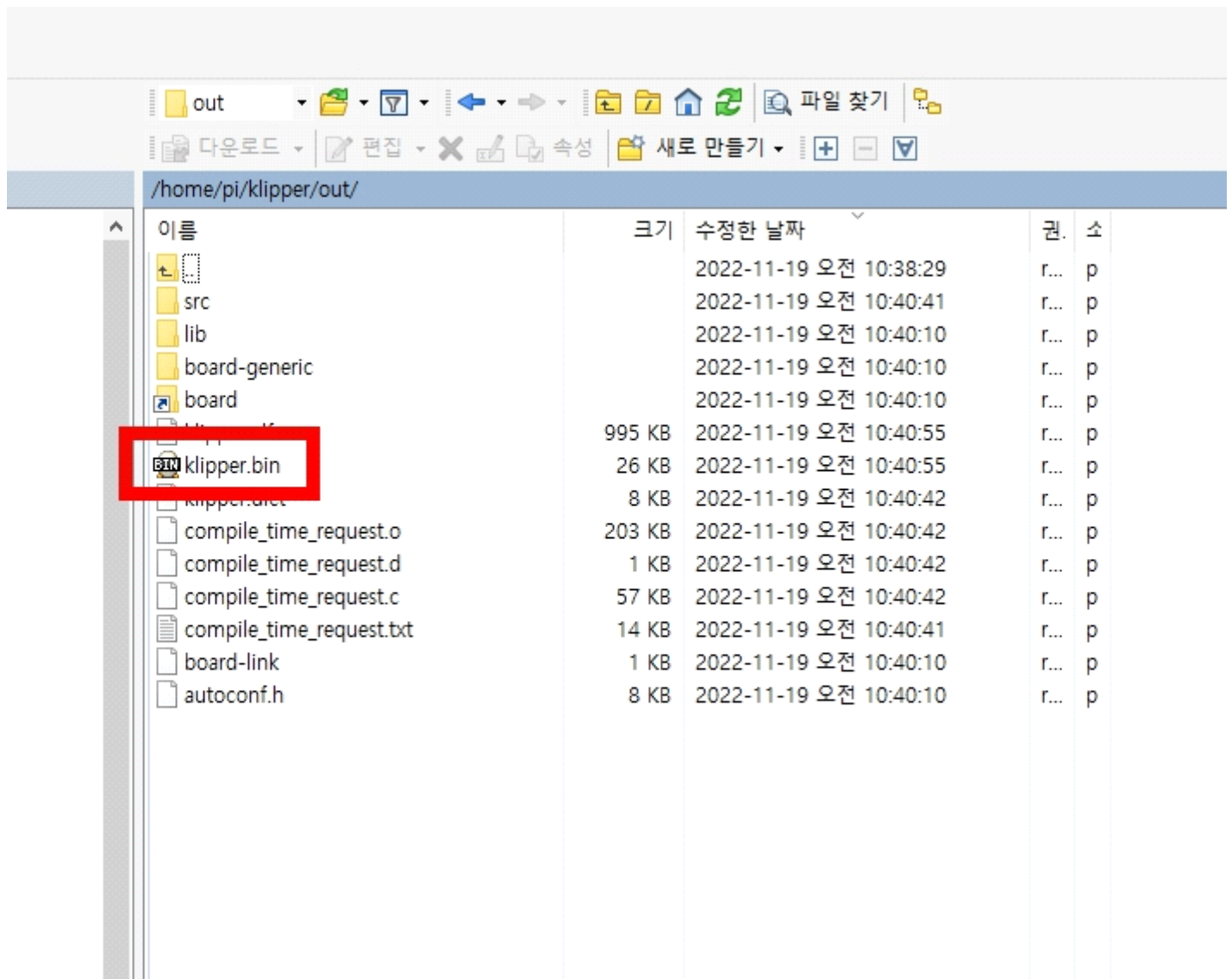
download
klipper.bin -> firmware.bin

Copy firmware.bin to the root directory of Micro-SD card, NOTE: !!if there is a "old_fw.bin" in the SD card, delete it first!!
Power off the printer and plug the Micro-SD card into socket on control board
Power on the printer, push the power button and wait about 30 seconds
(https://github.com/ZONESTAR3D/Z9/tree/main/Z9V5/Z9V5-MK1/6.%20Firmware)

Next Step is
https://www.klipper3d.org/Installation.html

```
login as: pi
pi@192.168.0.26's password:
Linux fluiddpi 5.15.32-v7+ #1538 SMP Thu Mar 31 19:38:48 BST 2022 armv7l

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat Nov 19 01:32:30 2022 from 192.168.0.24

SSH is enabled and the default password for the 'pi' user has not been changed.
This is a security risk - please login as the 'pi' user and type 'passwd' to set
 a new password.


/dev/serial/by-id/usb-Klipper_stm32f103xe_150019000800004C3243504E-if00
```