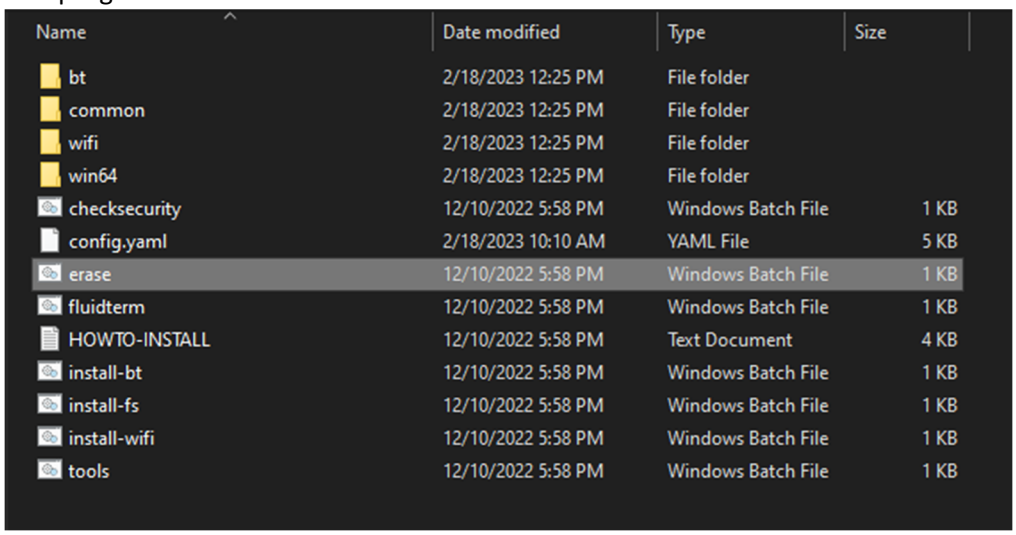
Installing fluidNC on the xPRO V5

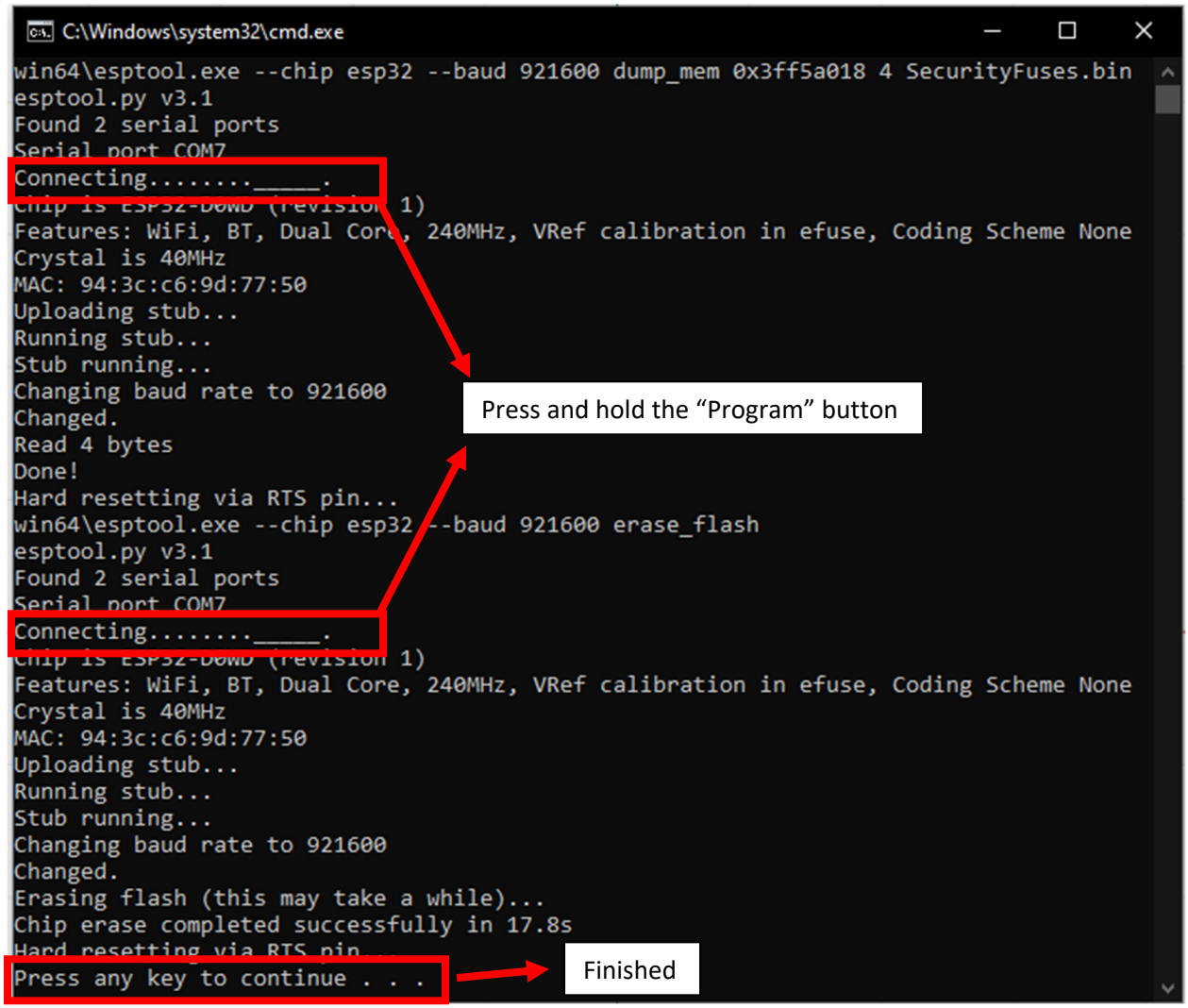
1) Download the latest release of FluidNC (Releases · bdring/FluidNC (github.com))
    a. Fluidnc_v3.6.6-win64.zip or posix.zip (not the source code)
2) Extract FluidNC files
3) Plug in xPRO V5 to computer using a USB to USB-C cable
4) Open FluidNC folder
    a. Run erase.bat
    b. Run install-wifi.bat
    c. Run install-fs.bat and upload config.yaml
5) Run program erase.bat



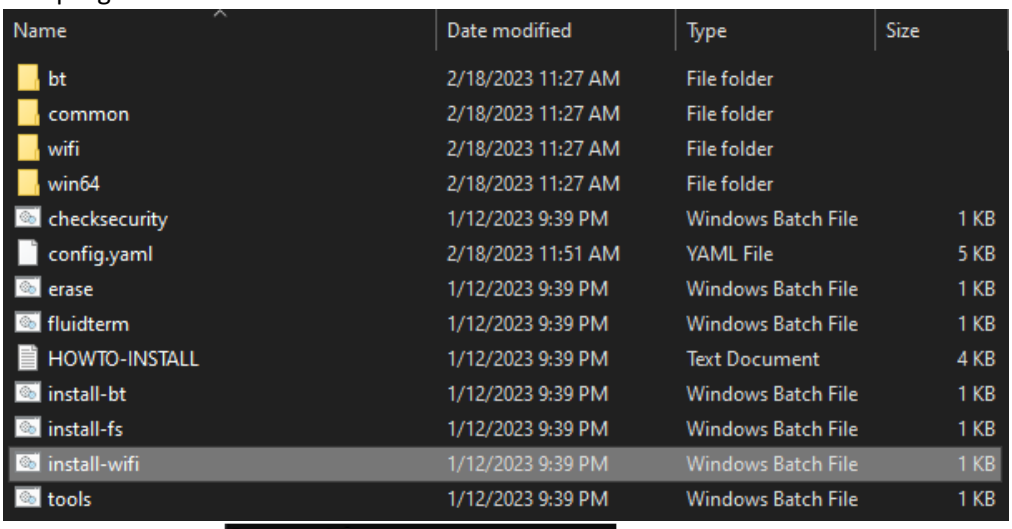
Name	Date modified	Type	Size
bt	2/18/2023 12:25 PM	File folder	
common	2/18/2023 12:25 PM	File folder	
wifi	2/18/2023 12:25 PM	File folder	
win64	2/18/2023 12:25 PM	File folder	
checksecurity	12/10/2022 5:58 PM	Windows Batch File	1 KB
config.yaml	2/18/2023 10:10 AM	YAML File	5 KB
erase	12/10/2022 5:58 PM	Windows Batch File	1 KB
fluidterm	12/10/2022 5:58 PM	Windows Batch File	1 KB
HOWTO-INSTALL	12/10/2022 5:58 PM	Text Document	4 KB
install-bt	12/10/2022 5:58 PM	Windows Batch File	1 KB
install-fs	12/10/2022 5:58 PM	Windows Batch File	1 KB
install-wifi	12/10/2022 5:58 PM	Windows Batch File	1 KB
tools	12/10/2022 5:58 PM	Windows Batch File	1 KB

6) Each time you see `Connecting.....____.` , **press and hold the programming button** until the load starts

7) Done properly it should look like this



8) Run program install-wifi.bat



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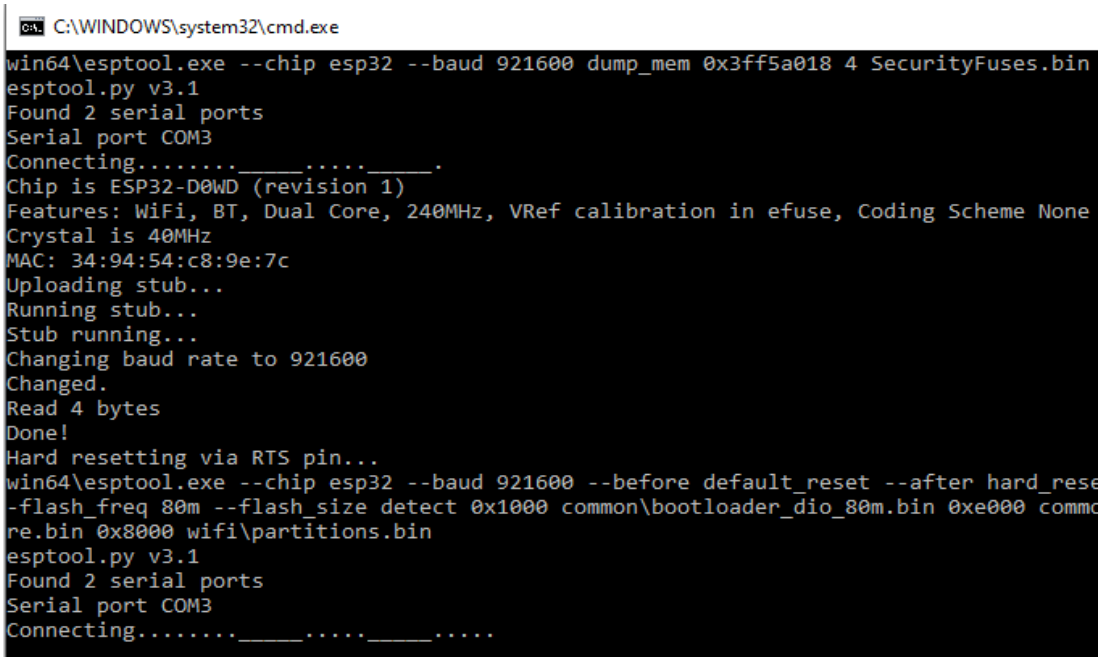
9) Each time you see `Connecting.....____.`, **press and hold the programming button** until the load starts



```
C:\WINDOWS\system32\cmd.exe
win64\esptool.exe --chip esp32 --baud 921600 dump_mem 0x3ff5a018 4 SecurityFuses.bin
esptool.py v3.1
Found 2 serial ports
Serial port COM3
Connecting.....____.....____.
Chip is ESP32-D0WD (revision 1)
Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse, Coding Scheme None
Crystal is 40MHz
MAC: 34:94:54:c8:9e:7c
Uploading stub...
Running stub...
Stub running...
Changing baud rate to 921600
Changed.
Read 4 bytes
Done!
Hard resetting via RTS pin...
win64\esptool.exe --chip esp32 --baud 921600 --before default_reset --after hard_rese
-flash_freq 80m --flash_size detect 0x1000 common\bootloader_dio_80m.bin 0xe000 commo
re.bin 0x8000 wifi\partitions.bin
esptool.py v3.1
Found 2 serial ports
Serial port COM3
Connecting.....____.....____.....
```

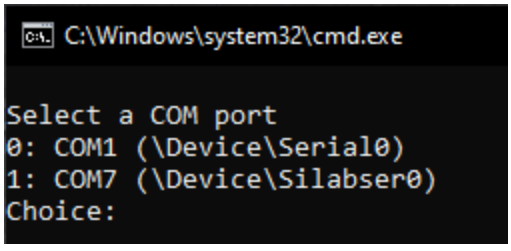
10) Done properly it should look like this

```
Serial port COM3
Connecting........_____..
Chip is ESP32-D0WD (revision 1)
Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse, Coding Scheme None
Crystal is 40MHz
MAC: 34:94:54:c8:9e:7c
Uploading stub...
Running stub...
Stub running...
Changing baud rate to 921600
Changed.
Configuring flash size...
Auto-detected Flash size: 4MB
Flash will be erased from 0x00001000 to 0x00005fff...
Flash will be erased from 0x0000e000 to 0x0000ffff...
Flash will be erased from 0x00010000 to 0x0019dfff...
Flash will be erased from 0x00008000 to 0x00008fff...
Compressed 17120 bytes to 11841...
Wrote 17120 bytes (11841 compressed) at 0x00001000 in 0.5 seconds (effective 270.3 kbit/s)...
Hash of data verified.
Compressed 8192 bytes to 47...
Wrote 8192 bytes (47 compressed) at 0x0000e000 in 0.2 seconds (effective 410.7 kbit/s)...
Hash of data verified.
Compressed 1627648 bytes to 971786...
Wrote 1627648 bytes (971786 compressed) at 0x00010000 in 16.5 seconds (effective 790.2 kbit/s)...
Hash of data verified.
Compressed 3072 bytes to 129...
Wrote 3072 bytes (129 compressed) at 0x00008000 in 0.1 seconds (effective 304.2 kbit/s)...
Hash of data verified.
```

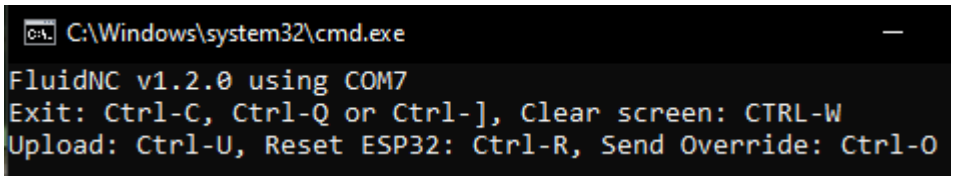
11) Close the programming window and run install-fs.bat
    Repeat steps 9 through 10 to complete the programming.

    To upload a new configuration file.

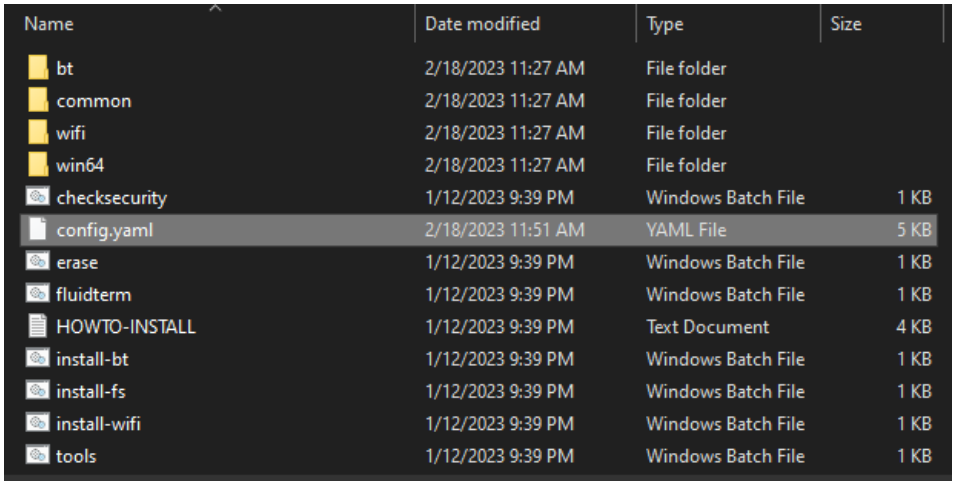
    1) Plug in xPRO V5 to computer using a USB to USB-C cable
    2) Open FluidNC file, and open FluidTerm.bat
    3) Select the com port that is named (\Device\Silabser0)



    4) Press CTRL+U to start and upload.



5) Navigate to the new YAML file, select the file, select open



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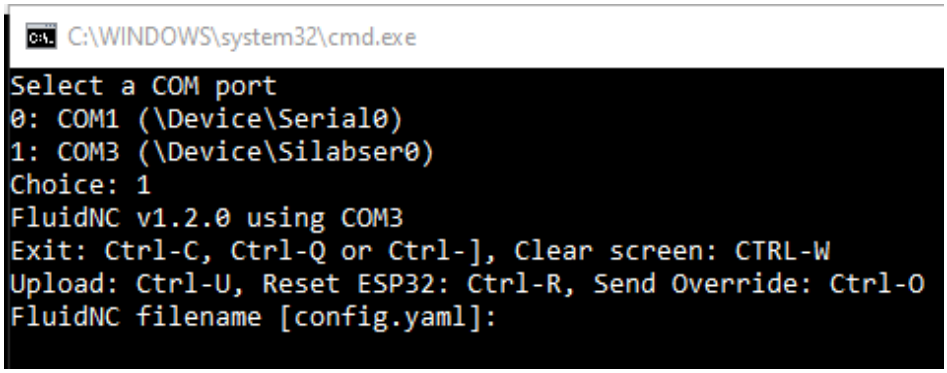
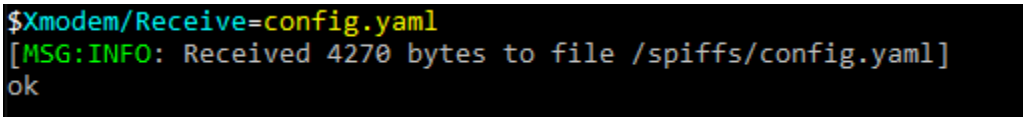
6) You should see this:



7) Press Enter to start upload
8) If successful it will look like this:
   a.


   b. Note: by default FluidNC looks for the config.yaml file name, if you name the file something else you will need to update the configuration field in fluidNC