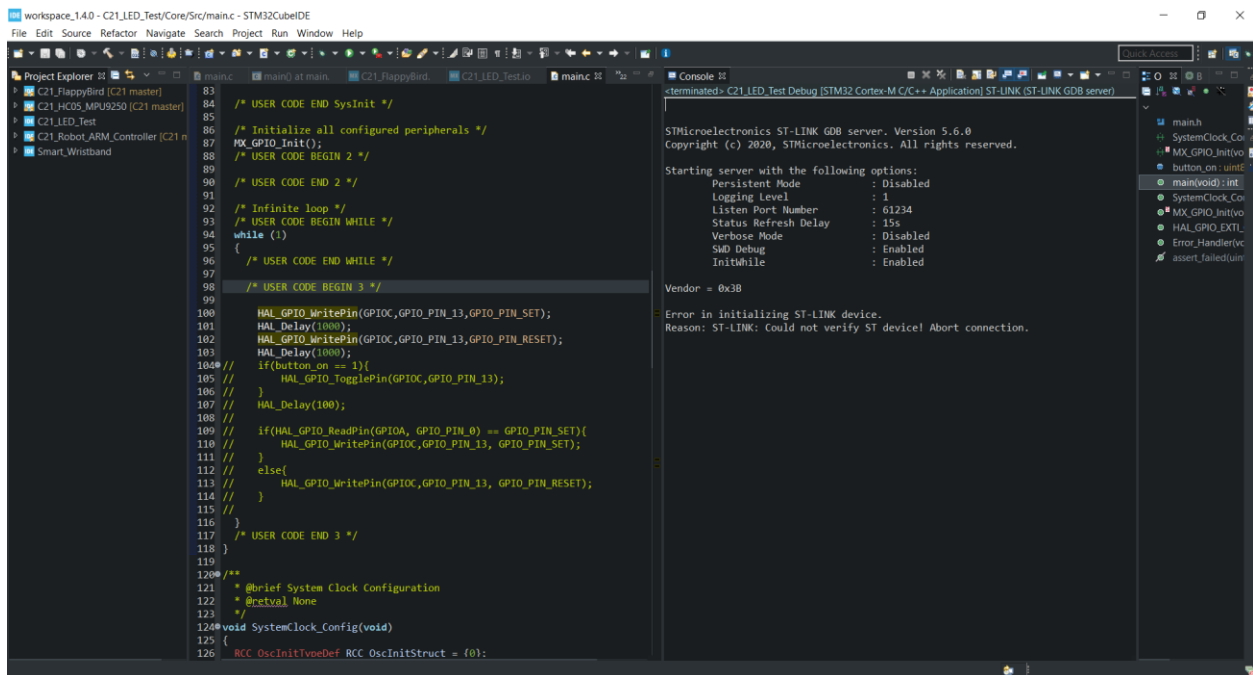


# Hướng dẫn fix bug không nạp được code trên board BluePill fake:

Board Fake trên thị trường thì rất là nhiều, có thể là loại CKSF103, loại ghi ST nhưng ruột là cái gì đó không biết, thì nếu các bạn gặp phải trường hợp bị bug như sau:



Thì các bạn đã mua phải board fake.

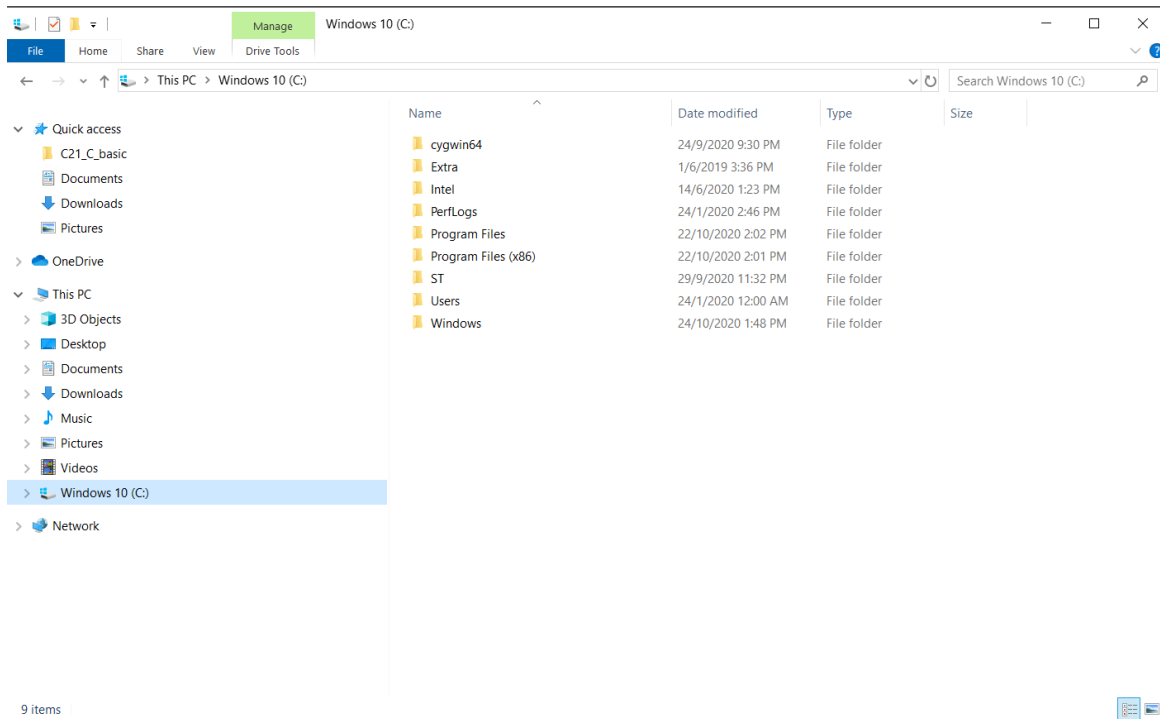
Nguyên nhân lỗi này là do STM32CubeIDE là phần mềm chính chủ của ST, và chế độ debug của nó chỉ nhận diện chip real, để sửa chúng ta cần chuyển sang debugger OpenOCD để sử dụng OpenOCD là tool debug nguồn mở nên ta có thể config nó chạy ở mode không xác nhận chip chính chủ ST.

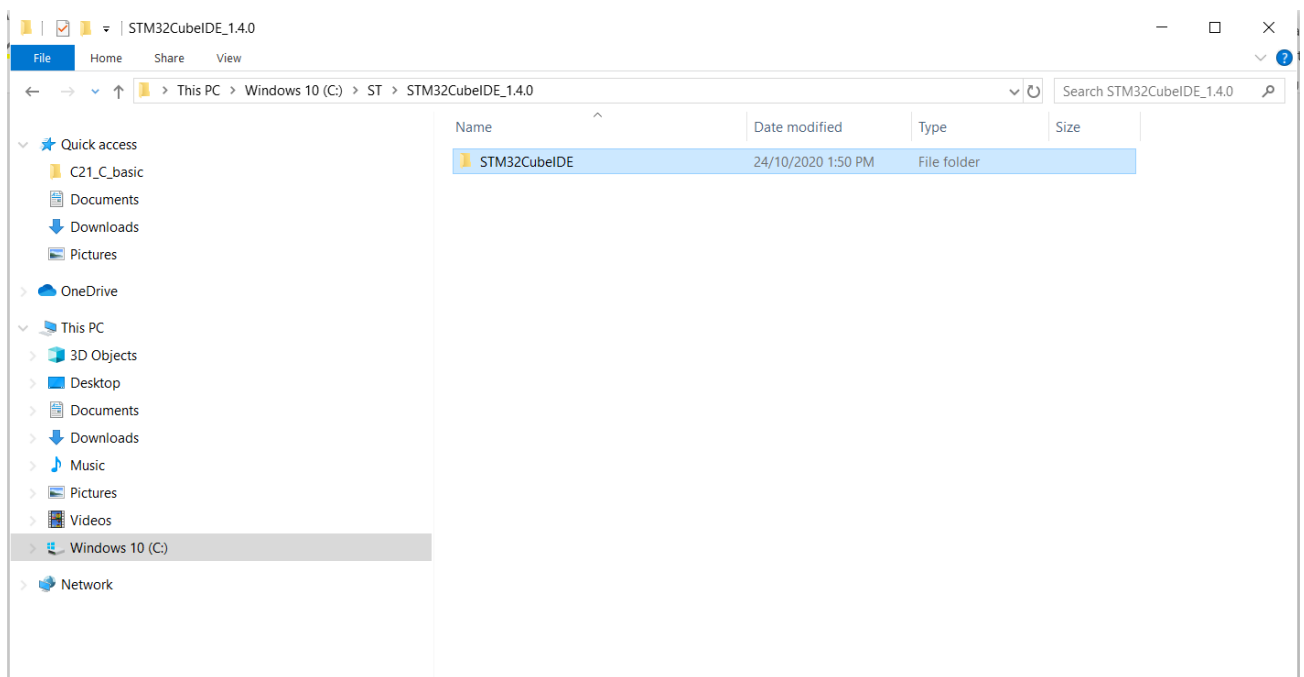
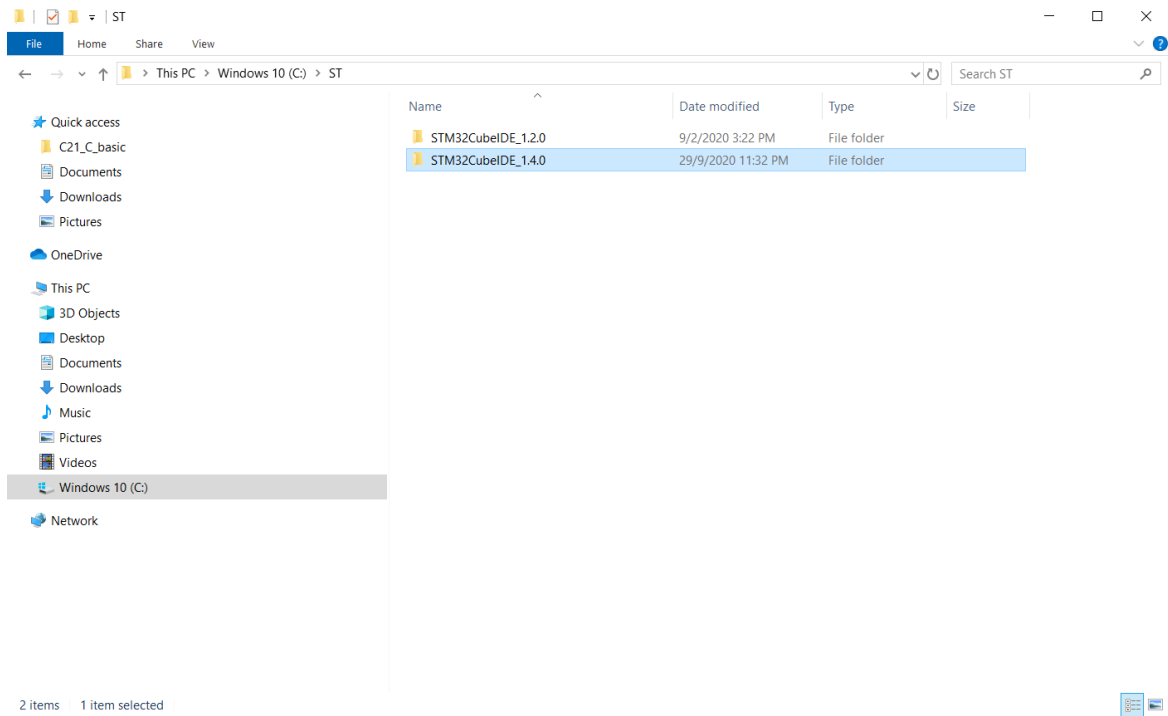
Để OpenOCD xác nhận chip, các bạn cần thêm một dòng vào config của OpenOCD:

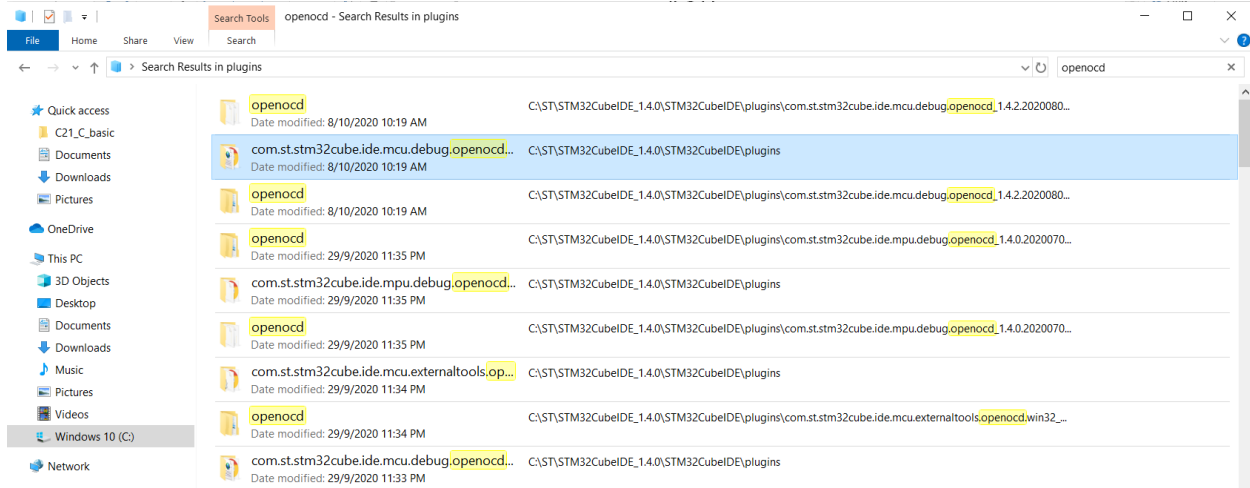
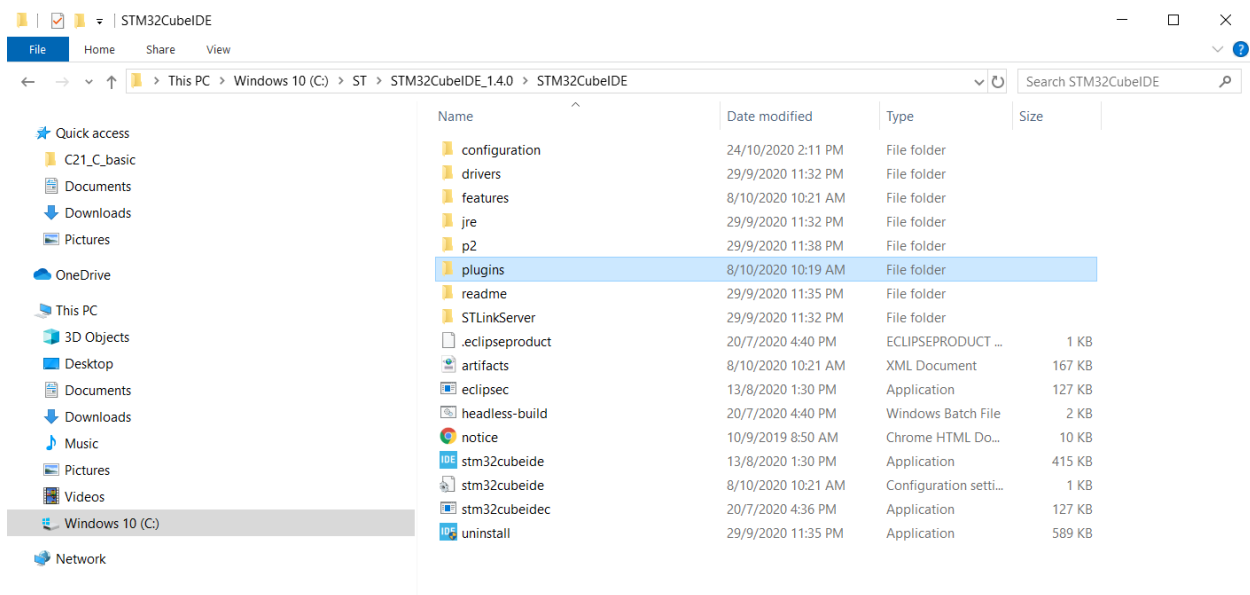
Địa chỉ thường thấy của file config này là:

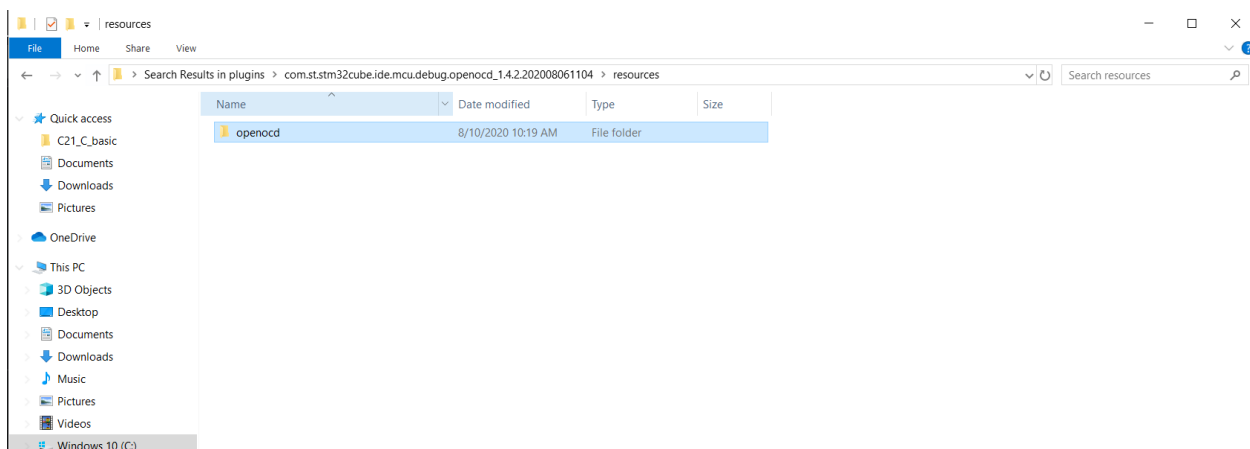
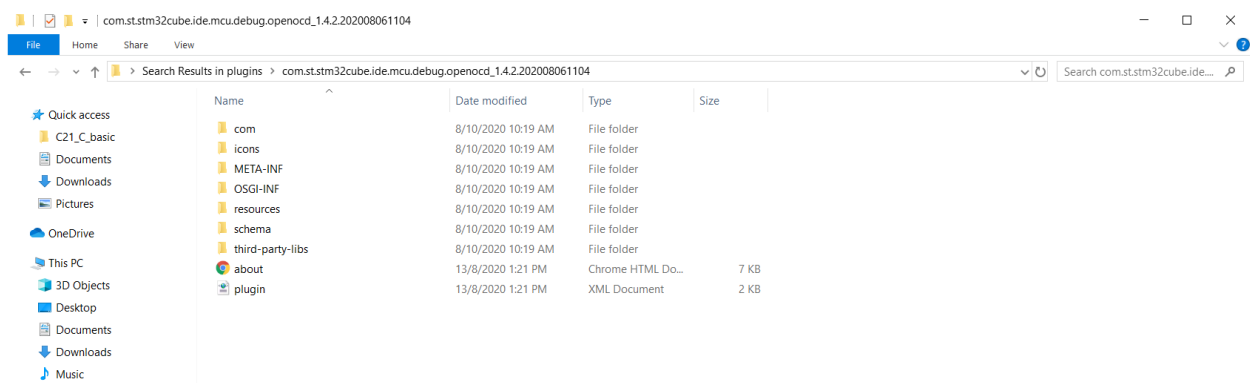
C:\ST\STM32CubeIDE\_1.4.0\STM32CubeIDE\plugins\com.st.stm32cube.ide.mcu.debug.openocd\_1.4.2.2-02008061104\resources\openocd\st\_scripts\target\stm32f1x.cfg

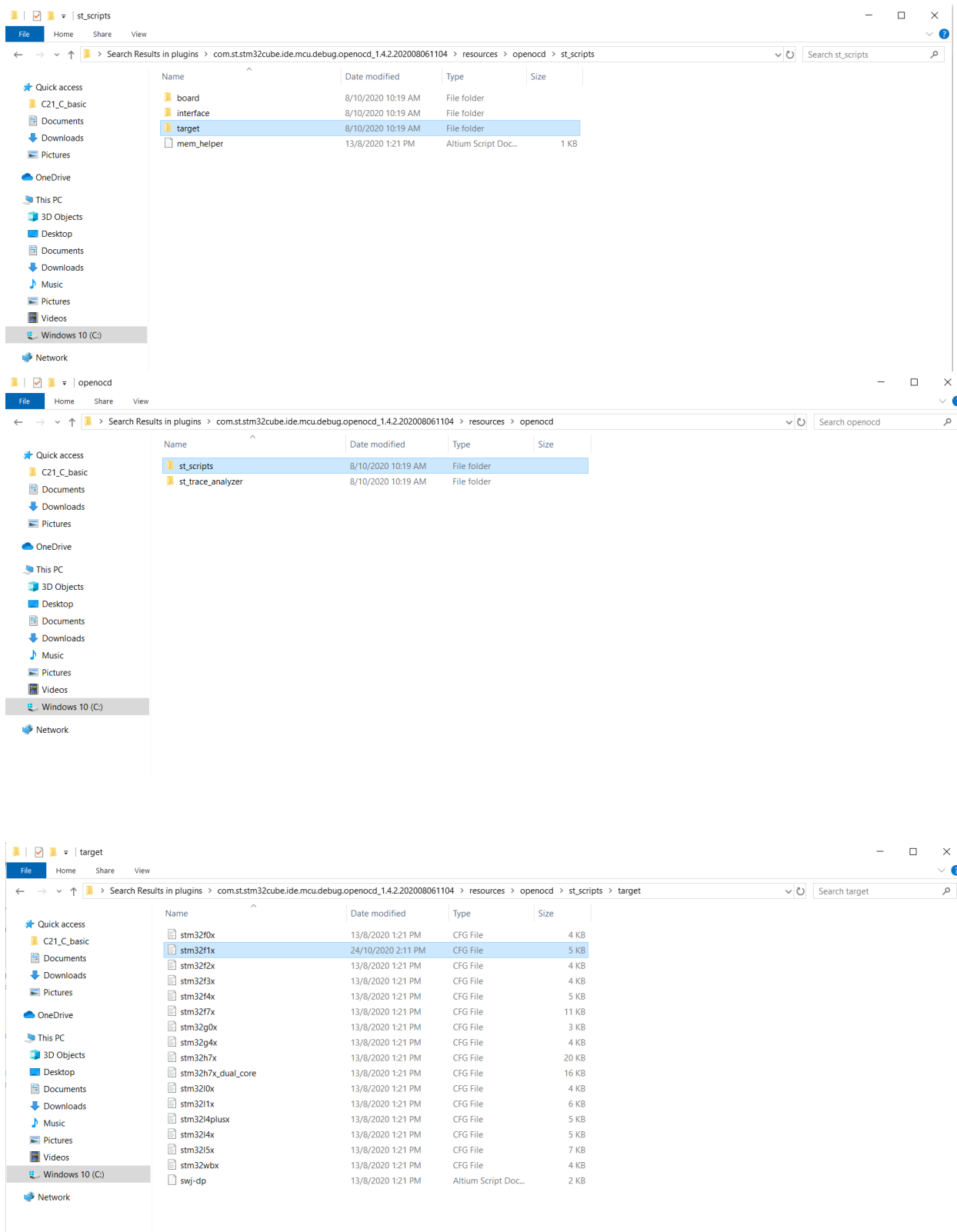
Sau đây là hành trình đi tìm cái file này của mình :->



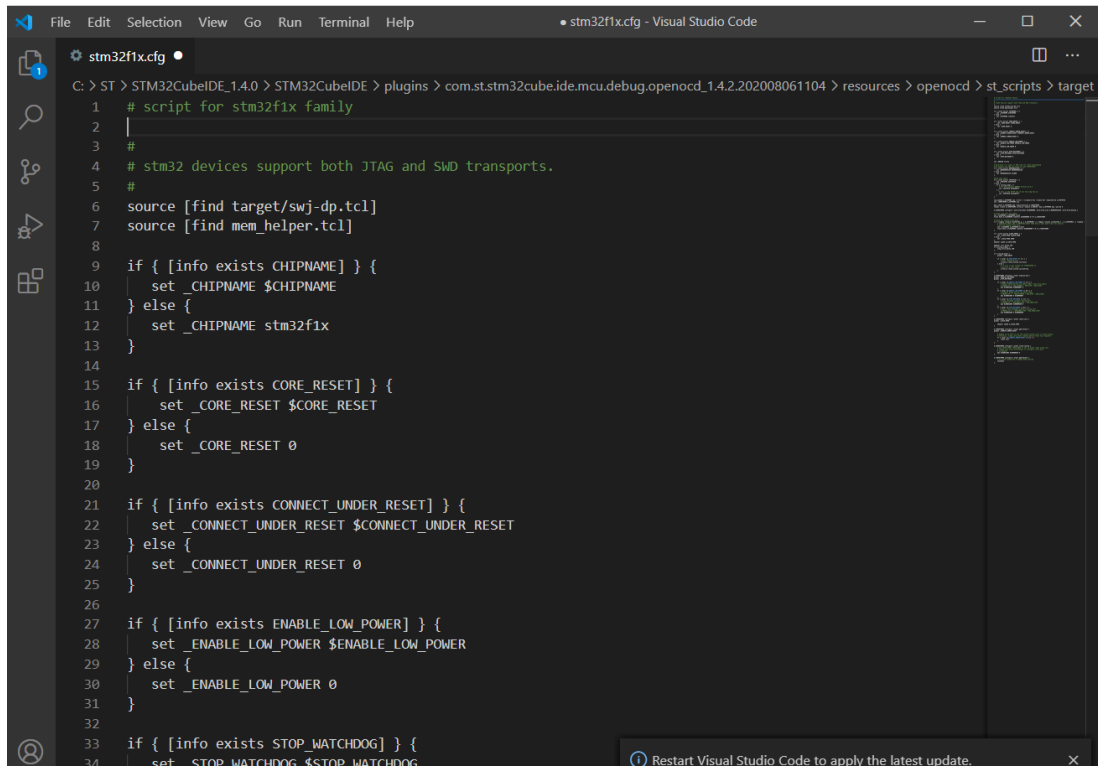








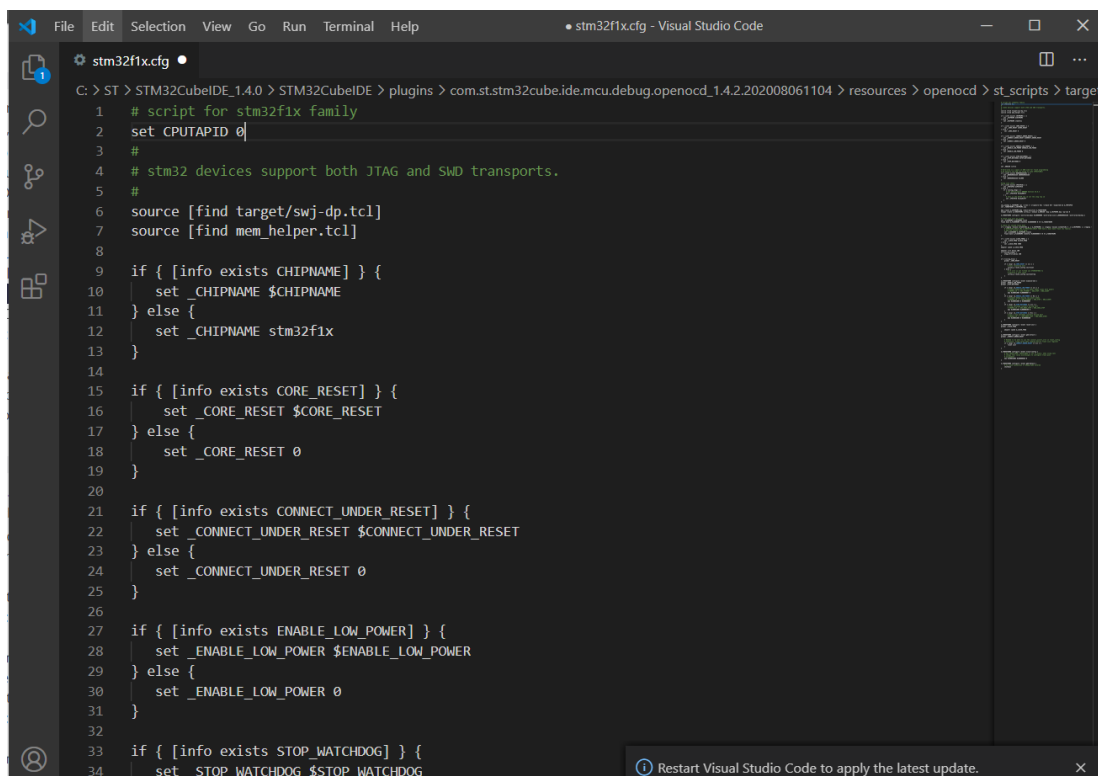
Đến đây là tới được nơi cần tới rồi, tiếp theo ta sẽ sửa một chút:



```
C: > ST > STM32CubeIDE_1.4.0 > STM32CubeIDE > plugins > com.st.stm32cube.ide.mcu.debug.openocd.1.4.2.202008061104 > resources > openocd > st_scripts > target

1 # script for stm32f1x family
2 |
3 #
4 # stm32 devices support both JTAG and SWD transports.
5 #
6 source [find target/swj-dp.tcl]
7 source [find mem_helper.tcl]
8
9 if { [info exists CHIPNAME] } {
10 |   set _CHIPNAME $CHIPNAME
11 | } else {
12 |   set _CHIPNAME stm32f1x
13 | }
14
15 if { [info exists CORE_RESET] } {
16 |   set _CORE_RESET $CORE_RESET
17 | } else {
18 |   set _CORE_RESET 0
19 | }
20
21 if { [info exists CONNECT_UNDER_RESET] } {
22 |   set _CONNECT_UNDER_RESET $CONNECT_UNDER_RESET
23 | } else {
24 |   set _CONNECT_UNDER_RESET 0
25 | }
26
27 if { [info exists ENABLE_LOW_POWER] } {
28 |   set _ENABLE_LOW_POWER $ENABLE_LOW_POWER
29 | } else {
30 |   set _ENABLE_LOW_POWER 0
31 | }
32
33 if { [info exists STOP_WATCHDOG] } {
34 |   set _STOP_WATCHDOG $STOP_WATCHDOG
```

Thêm vào dòng “set CPUAPID 0”

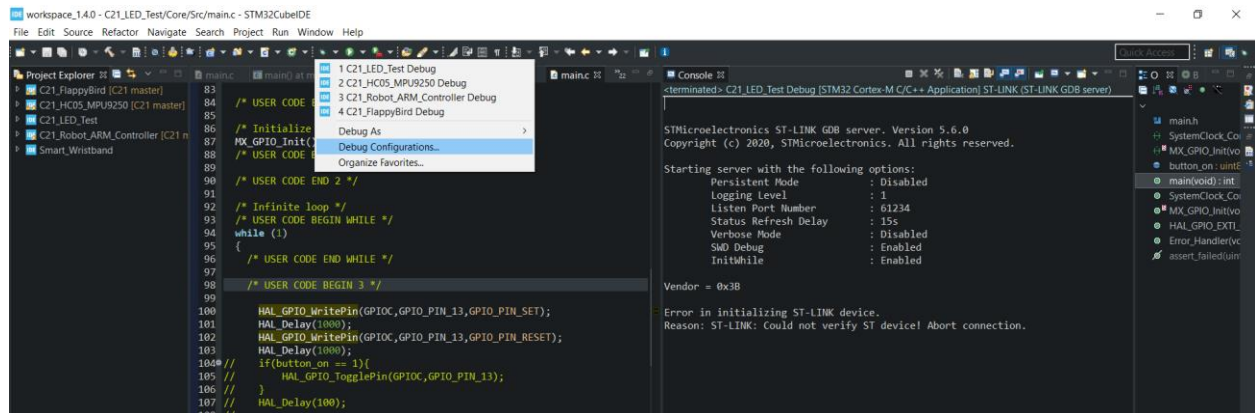


```
C: > ST > STM32CubeIDE_1.4.0 > STM32CubeIDE > plugins > com.st.stm32cube.ide.mcu.debug.openocd.1.4.2.202008061104 > resources > openocd > st_scripts > target

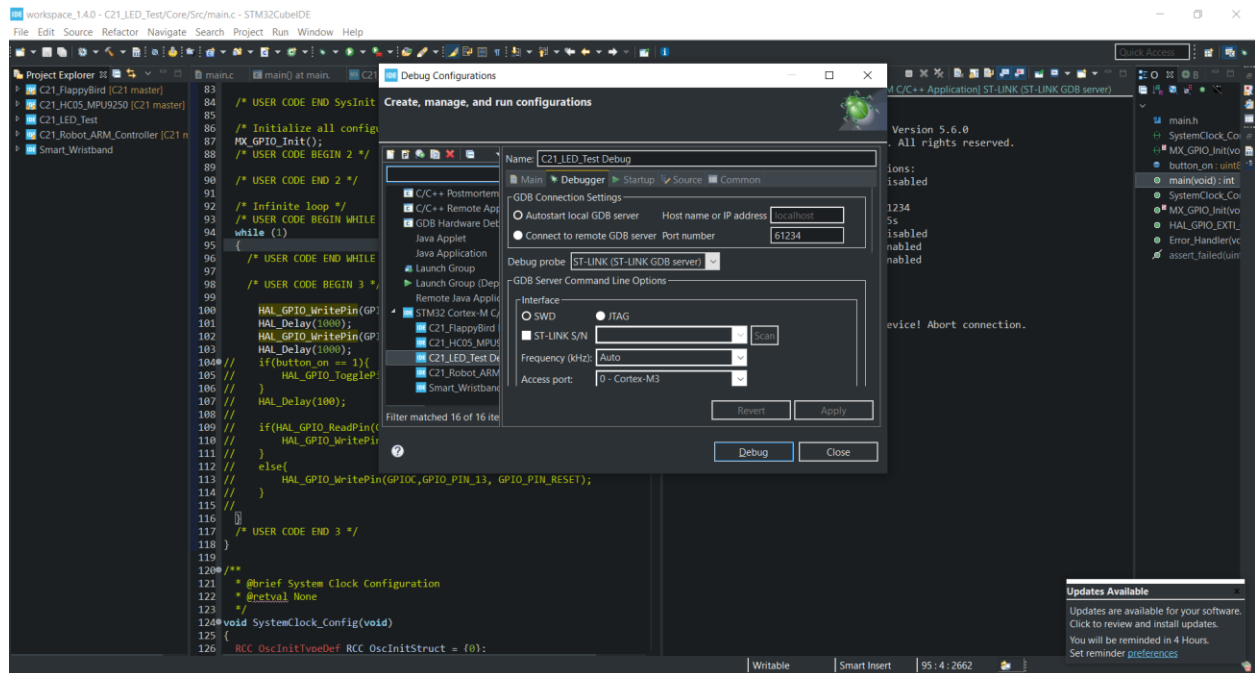
1 # script for stm32f1x family
2 set CPUAPID 0
3 #
4 # stm32 devices support both JTAG and SWD transports.
5 #
6 source [find target/swj-dp.tcl]
7 source [find mem_helper.tcl]
8
9 if { [info exists CHIPNAME] } {
10 |   set _CHIPNAME $CHIPNAME
11 | } else {
12 |   set _CHIPNAME stm32f1x
13 | }
14
15 if { [info exists CORE_RESET] } {
16 |   set _CORE_RESET $CORE_RESET
17 | } else {
18 |   set _CORE_RESET 0
19 | }
20
21 if { [info exists CONNECT_UNDER_RESET] } {
22 |   set _CONNECT_UNDER_RESET $CONNECT_UNDER_RESET
23 | } else {
24 |   set _CONNECT_UNDER_RESET 0
25 | }
26
27 if { [info exists ENABLE_LOW_POWER] } {
28 |   set _ENABLE_LOW_POWER $ENABLE_LOW_POWER
29 | } else {
30 |   set _ENABLE_LOW_POWER 0
31 | }
32
33 if { [info exists STOP_WATCHDOG] } {
34 |   set _STOP_WATCHDOG $STOP_WATCHDOG
```

Vào lại STM32CubeIDE:

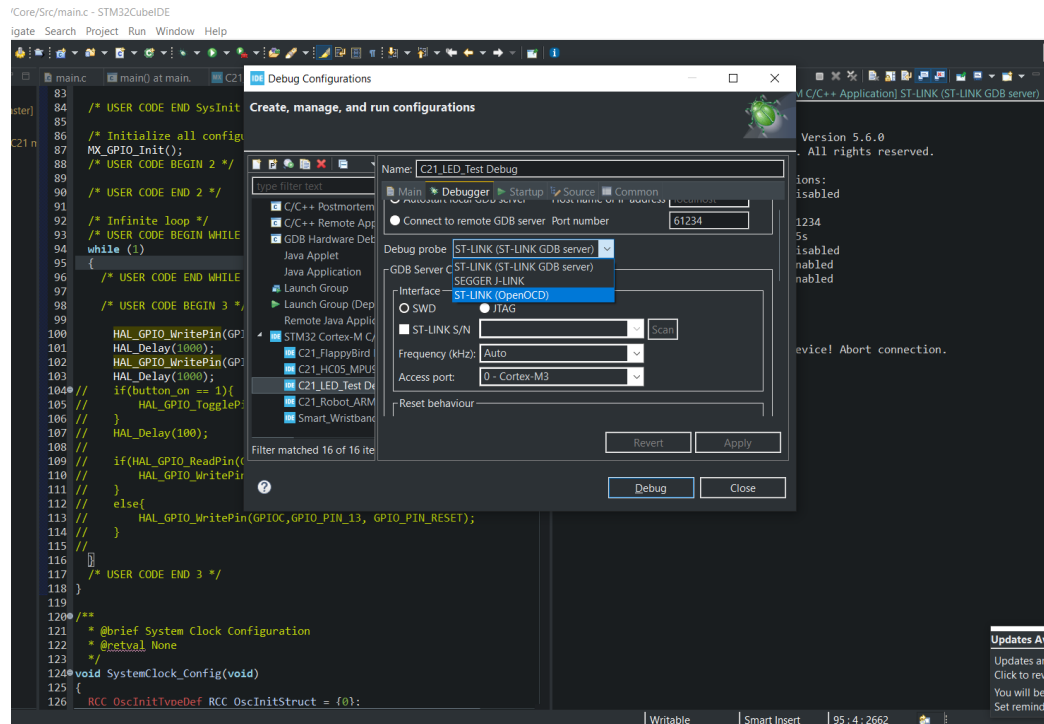
## Chọn debug configuration:



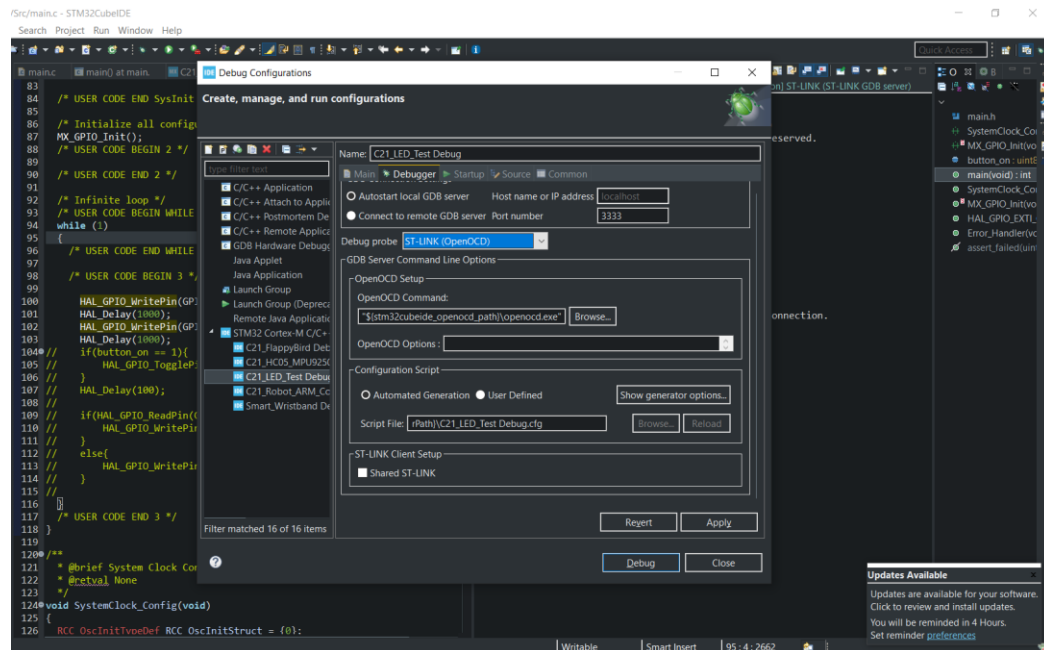
## Chọn STLink OCD:







Nhấn debug:



Thành công thì sẽ như thế này:

Giao diện debug được bật lên:

workspace\_14.0 - C21\_LED\_Test/Core/Src/main.c - STM32CubeIDE

File Edit Source Refactor Navigate Search Project Run Window Help

Debug | Project Explorer | main.c | main0 at main | C21\_FlappyBird | stm321xx\_itc | stm321xx\_hal.c | main0 at main | C21\_LED\_Testio | main.c

Project Explorer: C21\_LED\_Test Debug [STM32 Cortex-M C/++ Application] ST-LINK (OpenOCD)

main.c

```
63  /*  
64  int main(void)  
65  {  
66      /* USER CODE BEGIN 1 */  
67      /* USER CODE END 1 */  
68      /* MCU Configuration-----*/  
69      /* Reset of all peripherals, Initializes the Flash interface and the Systick. */  
70      HAL_Init();  
71      /* USER CODE BEGIN Init */  
72      /* USER CODE END Init */  
73      /* Configure the system clock */  
74      /*  
75      /*  
76      /*  
77      /*  
78      /*  
79      /*  
80      /*
```

Console | Problems | Expressions | Debugger Console | Memory

C21\_LED\_Test Debug [STM32 Cortex-M C/++ Application] ST-LINK (OpenOCD)

Info : Target voltage: 3.188527  
Info : Unable to match requested speed 8000 kHz, using 4000 kHz  
Info : Unable to match requested speed 8000 kHz, using 4000 kHz  
Info : clock speed 4000 kHz  
Info : stlink\_dap\_op\_connect(connect)  
Info : SMD DPIDR 0x2ba01477  
Info : STM32F103C8Tx.cpu: hardware has 6 breakpoints, 4 watchpoints  
Info : starting gdb server for STM32F103C8Tx.cpu on 3333  
Info : Listening on port 3333 for gdb connections  
Info : accepting 'gdb' connection on tcp/3333  
target halted due to debug-request, current mode: Thread  
xPSR: 0x21000000 pc: 0x08000542 msp: 0x20004fde  
Info : Unable to match requested speed 8000 kHz, using 4000 kHz  
Info : Unable to match requested speed 8000 kHz, using 4000 kHz  
Info : device id = 0x20036410  
Info : flash size = 64kbytes  
target halted due to debug-request, current mode: Thread  
xPSR: 0x21000000 pc: 0x08000542 msp: 0x20004fde  
Info : Unable to match requested speed 8000 kHz, using 4000 kHz  
Info : Unable to match requested speed 8000 kHz, using 4000 kHz  
target halted due to debug-request, current mode: Thread  
xPSR: 0x61000000 pc: 0x2000003a msp: 0x20004fde

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Set reminder preferences

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