Screw System USER Guide

MILESTONE #2

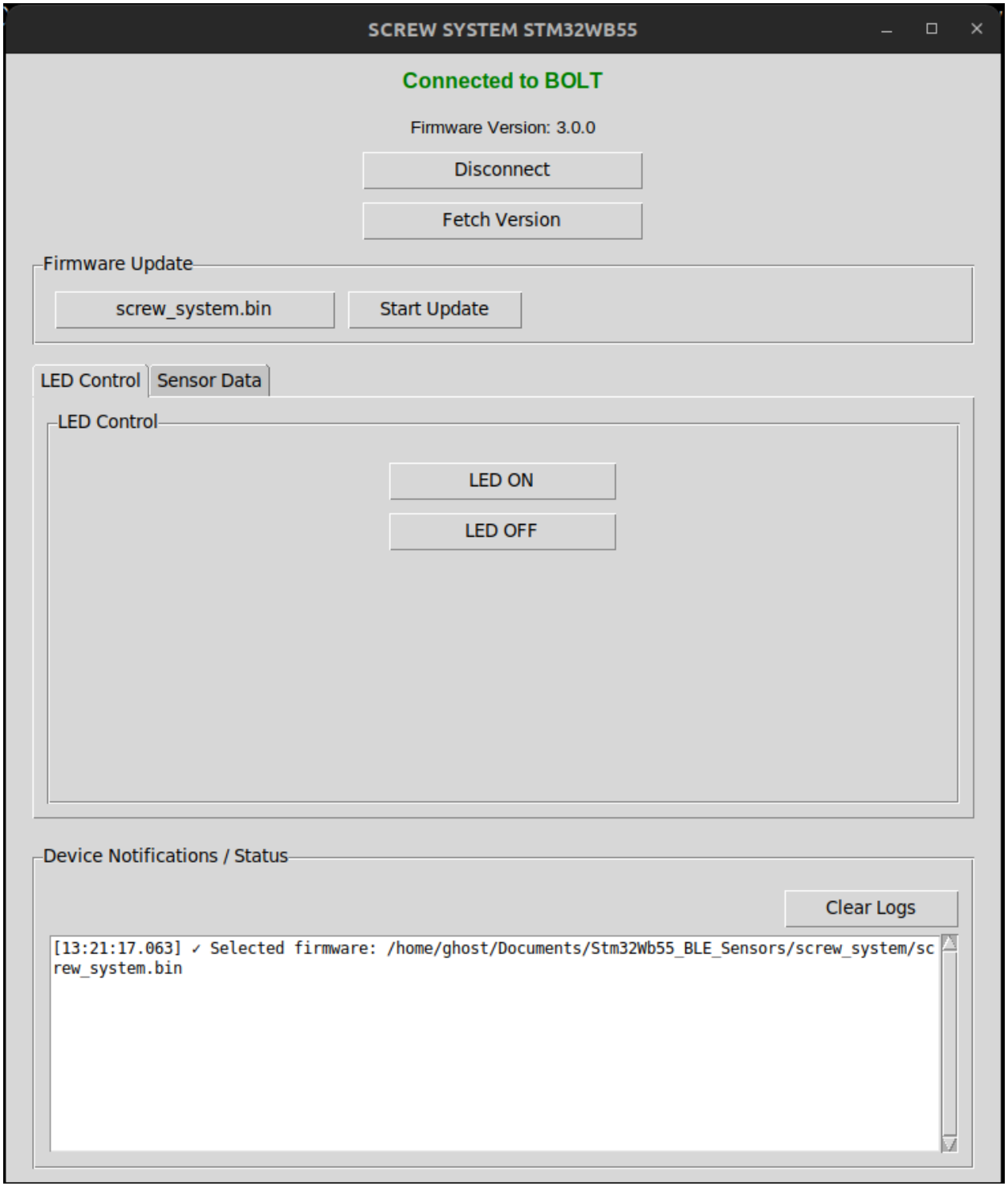
Python Script Guide

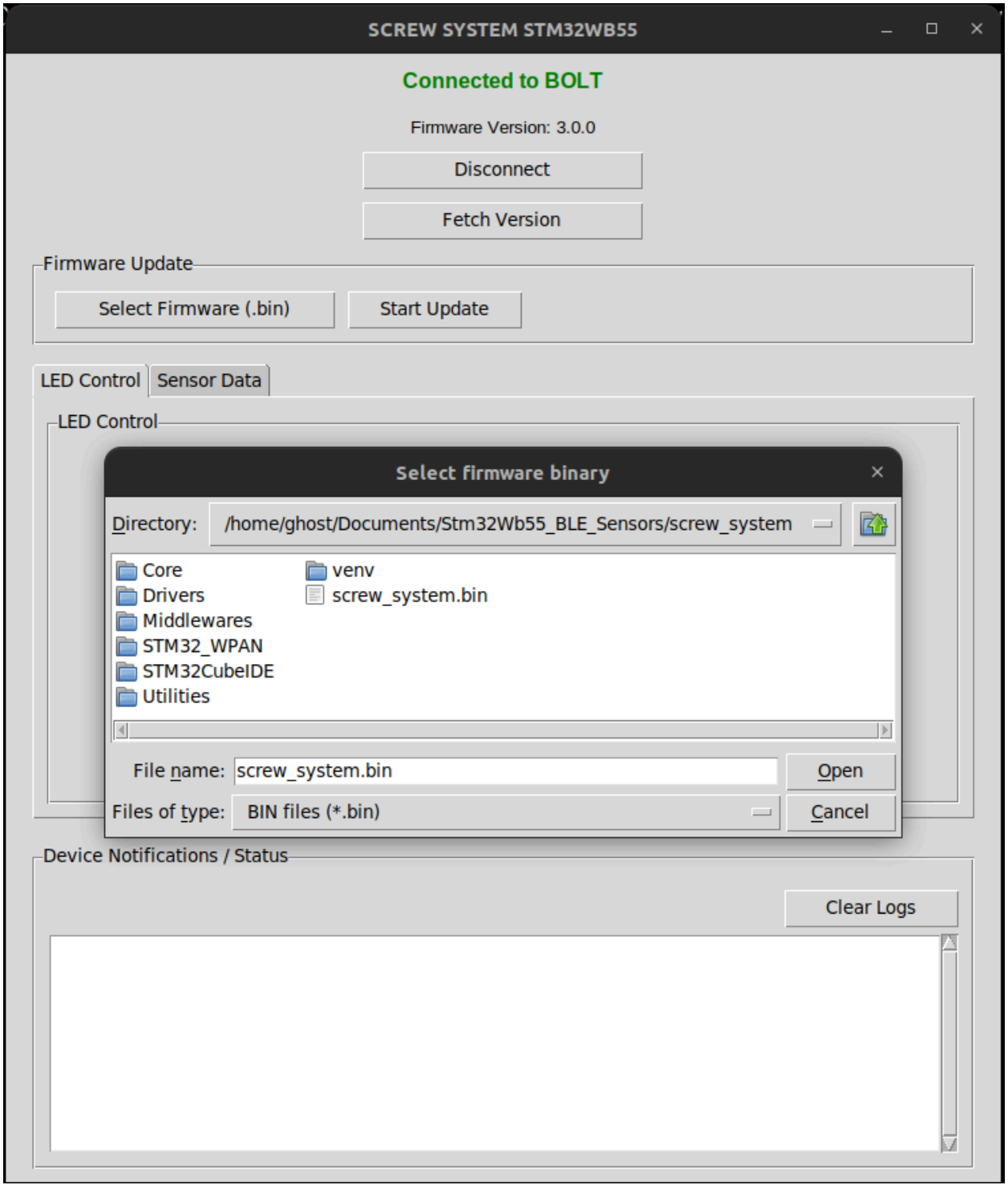
1. Double-click the file ScrewSystem.py → it should run directly (if .py files are associated with Python).

   OR

   Open Command Prompt (normal, not admin) → go to your folder → run:

   python ScrewSystem.py
2. On connect you will see tabs saying select the .bin file, so click on it and select the bin file which i shared.
3. After that click on start ota, the application will perform ota check security and then reboot to the new firmware.
4. After that the script will automatically connect to the device and get the new firmware through which you can confirm if your device was updated or not.

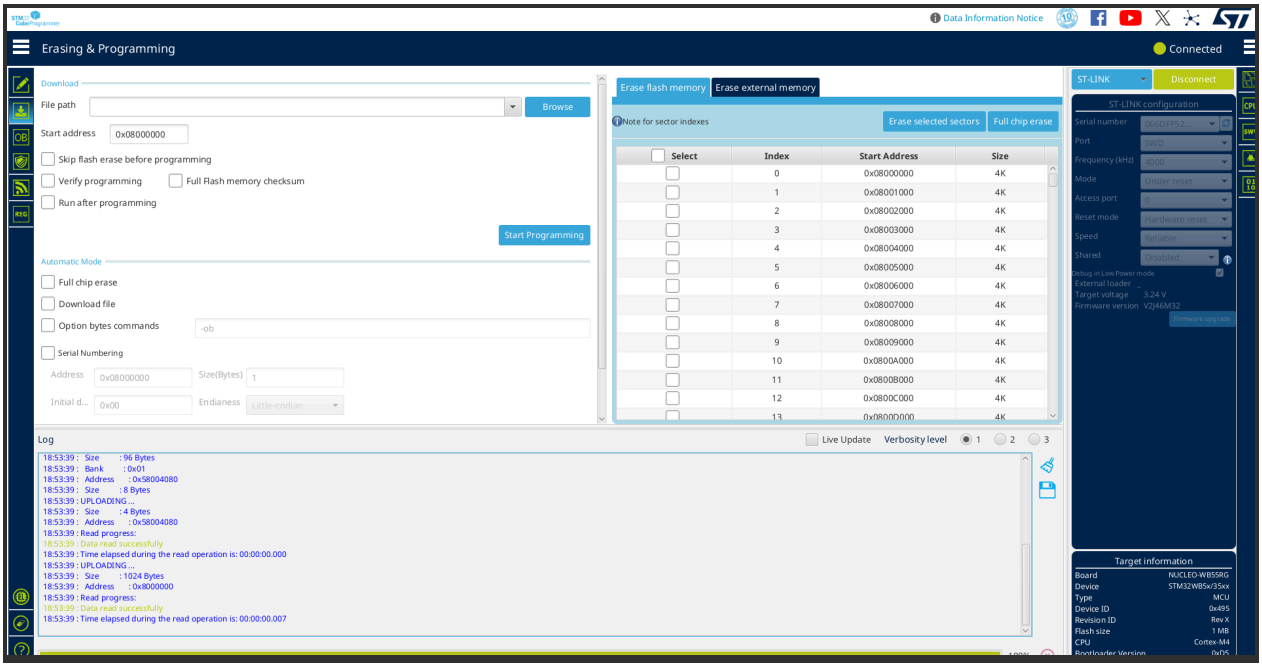

SCREW SYSTEM STM32WB55
Connected to BOLT
Firmware Version: 3.0.0
Disconnect
Fetch Version
Firmware Update
screw_system.bin
Start Update
LED Control
Sensor Data
LED Control
LED ON
LED OFF
Device Notifications / Status
Clear Logs
[13:21:17.063] ✓ Selected firmware: /home/ghost/Documents/Stm32Wb55_BLE_Sensors/screw_system/screw_system.bin


SCREW SYSTEM STM32WB55
Connected to BOLT
Firmware Version: 3.0.0
Disconnect
Fetch Version
Firmware Update
Select Firmware (.bin)
Start Update
LED Control
Sensor Data
LED Control
Select firmware binary
Directory:
/home/ghost/Documents/Stm32Wb55_BLE_Sensors/screw_system
Core
Drivers
Middlewares
STM32_WPAN
STM32CubeIDE
Utilities
venv
screw_system.bin
File name:
screw_system.bin
Open
Files of type:
BIN files (*.bin)
Cancel
Device Notifications / Status
Clear Logs

Firmware Flashing Guide(One time)

Look at the screenshot below this is where you need to go when you open the stm32cube programmer application,

1. Click on connect device, after successful connection.
2. On the left side you can see the option Erasing & programming which is indicated by the down word arrow. Click on that you will see the interface shown below.
3. Browse to directory where you have downloaded the files which i shared with you.
4. There will be two binary files the first one needs to flash is BLE_ota.bin.
5. This is a one time process, so select this file, after that you can see there is option below the file path name start address and there is the box,
    a. `0x08000000`
6. `Put the above number in the box. After that click on start programming. Wait for programming. Dont click anything else besides it.`



`Notes:`

1. `I have changed some security related things in the ota bootloader thats why i will be sharing a new ble_ota binary to upload its a one time process you wont need to do this.`

2. `For the application you dont need to program it anymore as you will update that from the python script.`