

How to use X-NUCLEO-IDB04A1 (BlueNRG evaboard) + NUCLEO-L053R8 and BlueNRG APP for Android and iOS (Apple)

[BlueNRG X-Nucleo-IDB04A1 and NUCLEO-L053R8 resources](#)

[BlueNRG DK 1.6.0](#)

[BlueNRG_V2.0_draft_CubeL0_141014 – SW resource for STM32L0xx MCU](#)

[Plug the X-NUCLEO-IDB04A1 on NUCLEO-L053R8](#)

[Install the SensorDemoProject.bin on NUCLEO-L053R8](#)

[Install the APP on ANDROID end/or on iOS \(APPLE\)](#)

[SensorDemoProject source code](#)

BlueNRG X-Nucleo-IDB04A1 and NUCLEO-L053R8 resources

The resources of **X-Nucleo-IDB04A1** are [here](#).

Details:

- BlueNRG IC
- BALF-NRG-01D3 integrated balun
- 16 MHz Crystal
- 32kHz Crystal for sleep mode management
- PCB meander antenna
- UFL connector – not mounted by default
- Power consumption monitoring

The resources of **NUCLEO-L053R8** are [here](#).

Details:

- STM32™ microcontroller with LQFP64 package
- Two types of extension resources
 - Arduino Uno Revision 3 connectivity
 - STMicroelectronics Morpho extension pin headers for full access to all STM32 I/Os
- mbed-enabled (mbed.org)
- On-board ST-LINK/V2-1 debugger/programmer with SWD connector selection-mode switch to use the kit as a standalone ST-LINK/V2-1
- Flexible board power supply
 - USB VBUS or external source(3.3 V, 5 V, 7 - 12 V)
 - Power management access point
- Three LEDs
 - USB communication (LD1), user LED (LD2), power LED (LD3)
- Two push buttons: USER and RESET
- USB re-enumeration capability: three different interfaces supported on USB
 - Virtual Com port
 - Mass storage
 - Debug port
- Supported by wide choice of Integrated Development Environments (IDEs) including IAR™, Keil®, GCC-based IDEs

BlueNRG DK 1.6.0 that is here

First install on your PC the application software setup of BlueNRG DK 1.6.0 that is [here](#).

BlueNRG_V2.0_draft_CubeL0_141014 - SW resource for STM32L0xx MCU

Second unzip the install the: **BlueNRG_V2.0_draft_CubeL0_141014.7z**

Plug the X-NUCLEO-IDB04A1 on NUCLEO-L053R8

See below.



Install the SensorDemoProject.bin on NUCLEO-L053R8

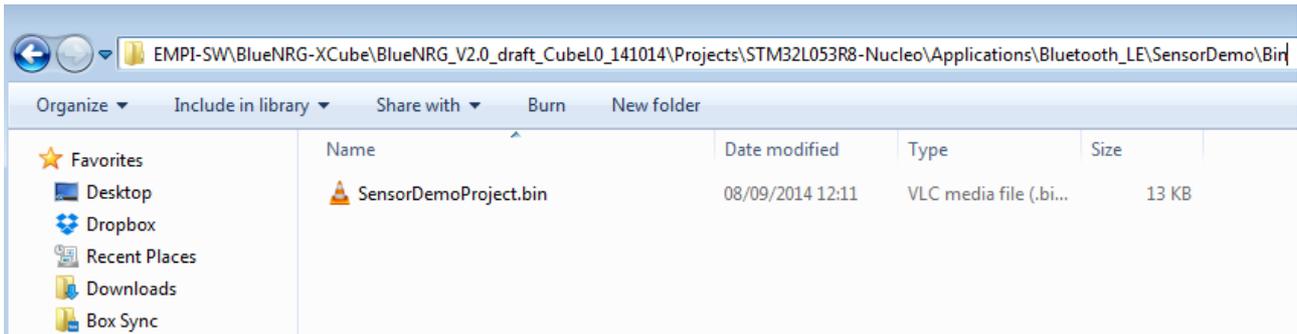
Install on NUCLEO-L053R8 the:

SensorDemoProject.bin

that is here:

C:\...\BlueNRG_V2.0_draft_CubeL0_141014\Projects\STM32L053R8-Nucleo\Applications\Bluetooth_LE\SensorDemo\Bin

See below.

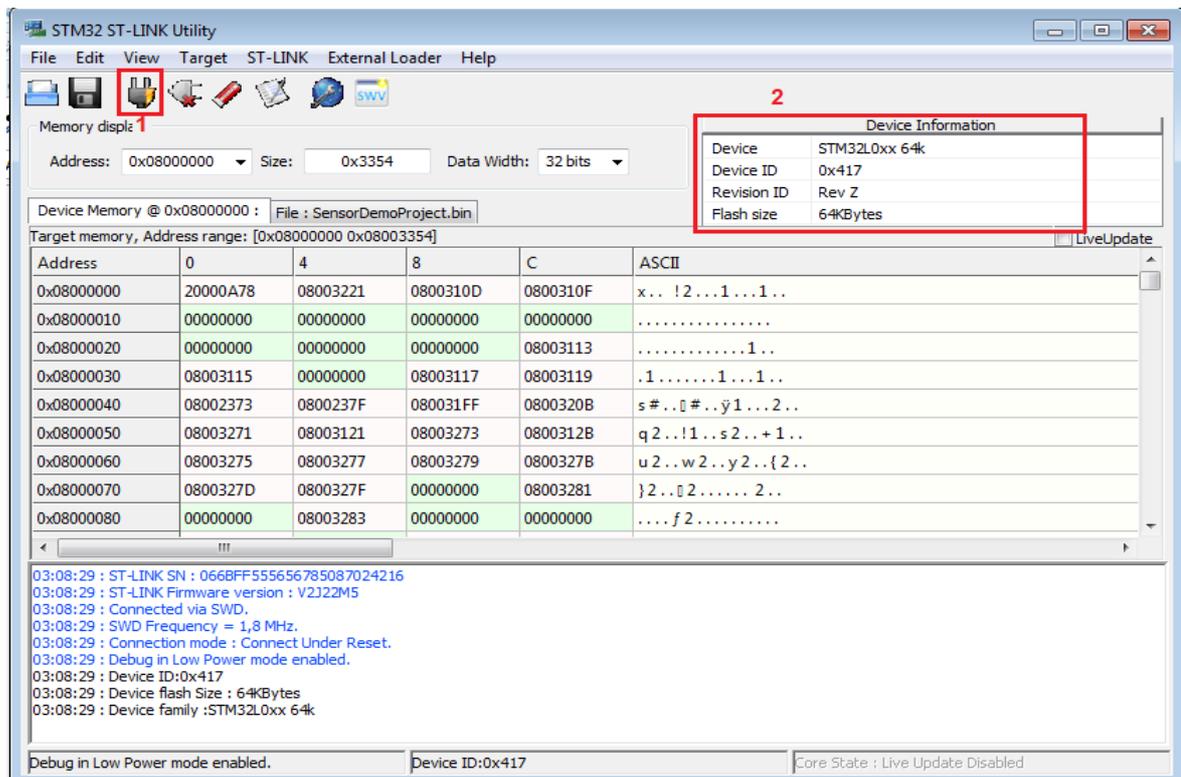


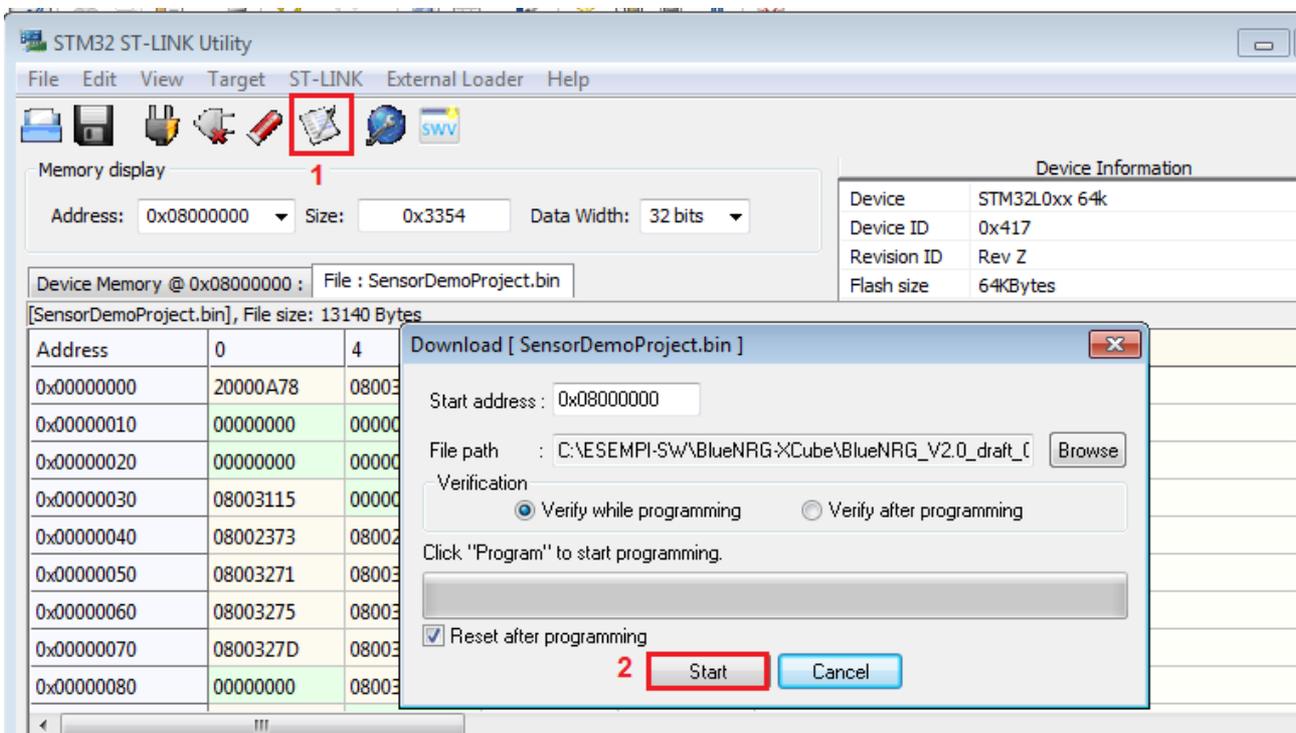
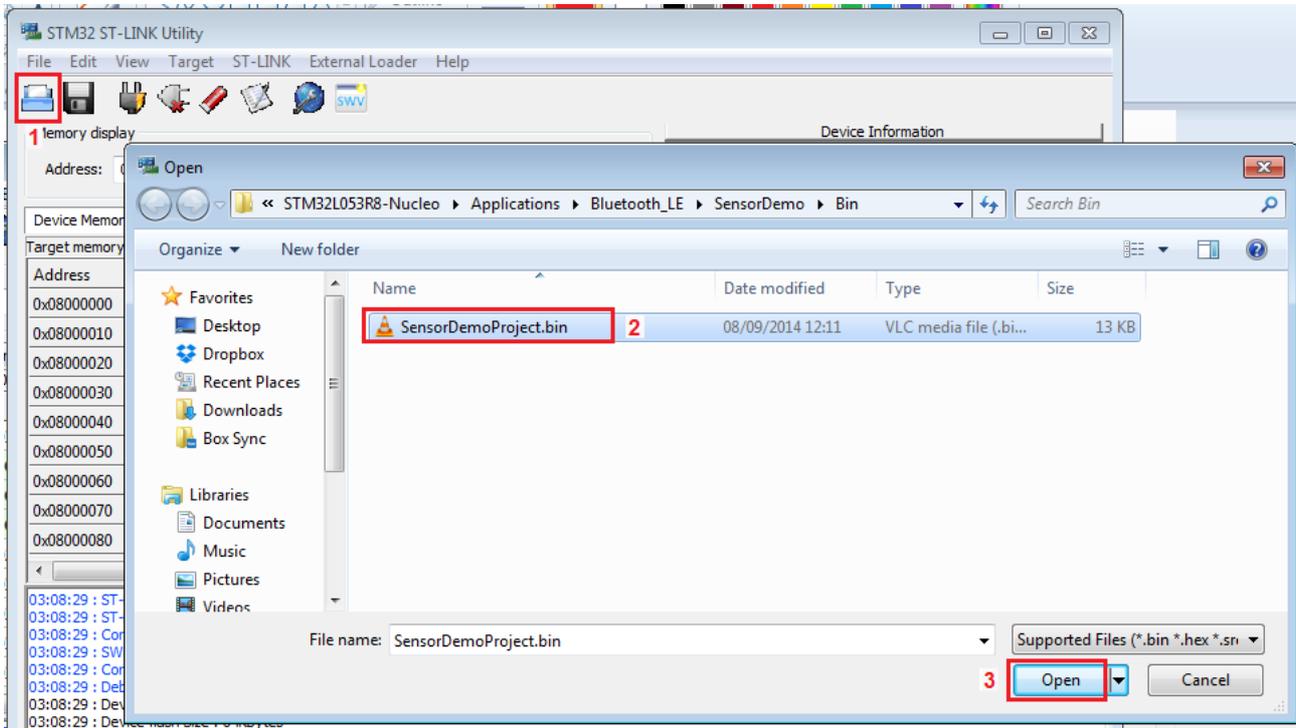
For install on the **NUCLEO-L053R8** the **SensorDemoProject.bin** use the: **ST-LINK_UTILITY** that is [here](#).

Connect the **NUCLEO_L053R8** to PC and run the **ST-LINK_UTILITY**.

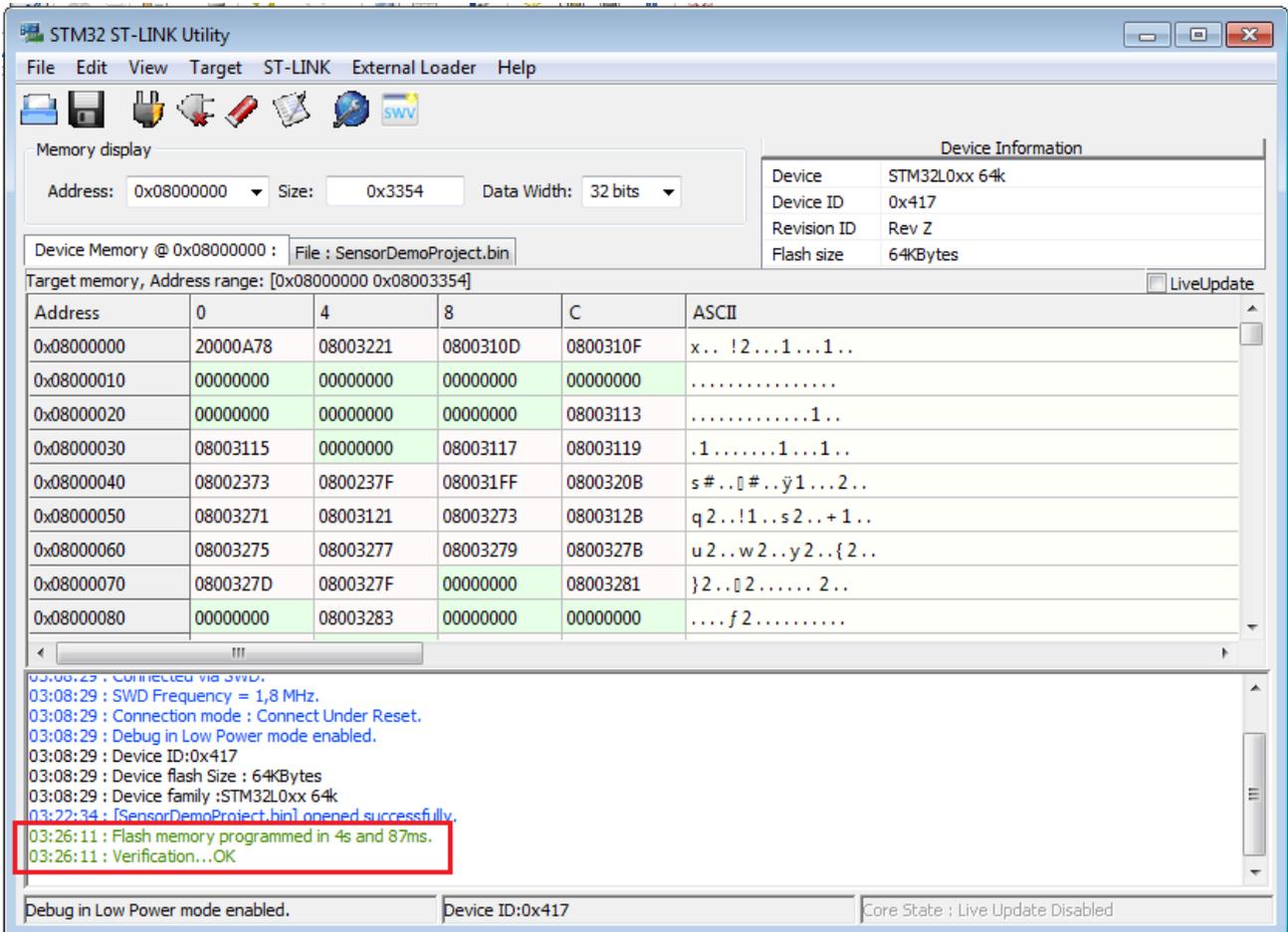
Press on the plug icon (1), you must see in the Device information box, the name of the MCU (2).

See below.



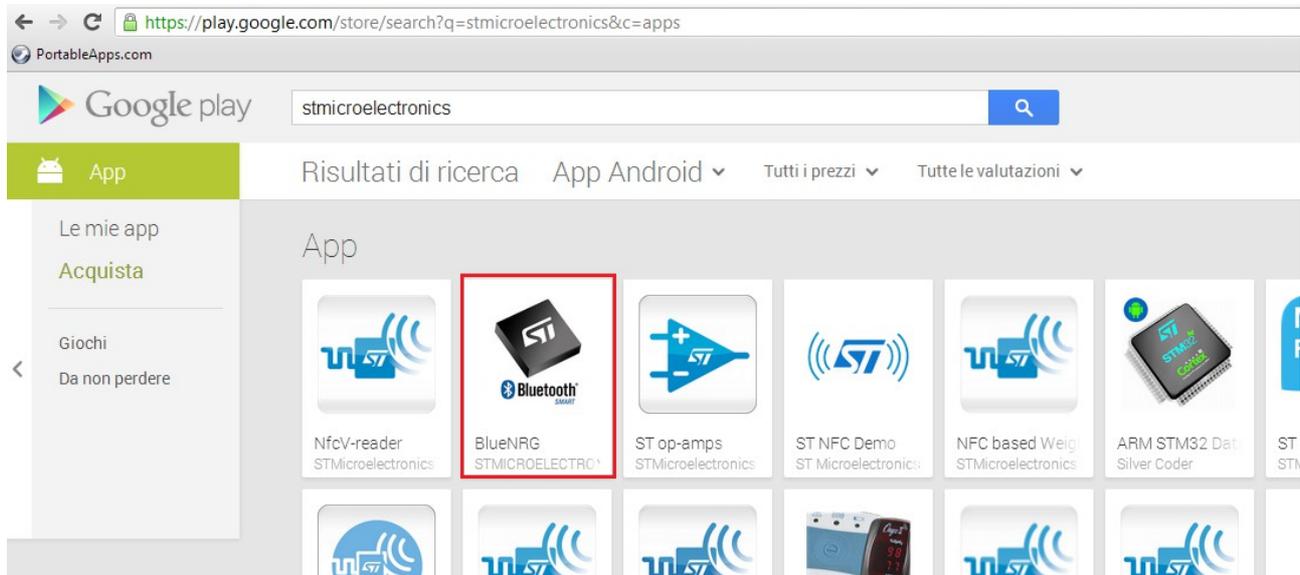


You must see the sentences that are in the red box below.



Install the APP on ANDROID end/or on iOS (APPLE)

For **ANDROID** search the BlueNRG APP in the [GOOGLE PLAY](https://play.google.com/store/search?q=stmicroelectronics&c=apps) store and install it, see the red box below.

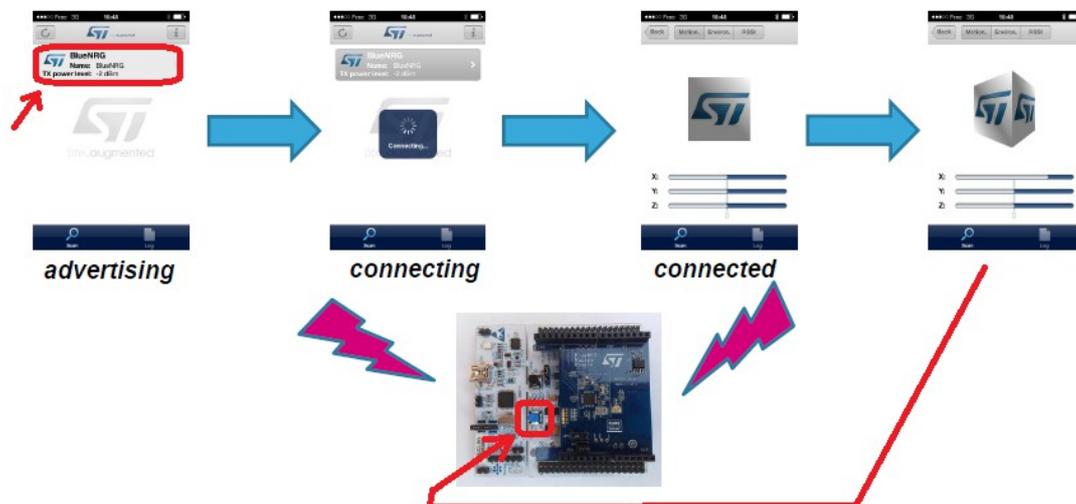


For iOS (Apple) enter in App Store and search BlueNRG and install it.

Run the APP, press the **blue button** present on the NUCLEO-L053R8 board you must see the **STM-Cube** icon that **rotate** of one step at any pressure of the blue button. See below

ATTENTION:

The BlueNRG request the Bluetooth 4.x on your SmartPhone or Tablet.



SensorDemoProject source code

The SensorDemoProject source code is here:

C:\...\BlueNRG_V2.0_draft_CubeL0_141014\Projects\STM32L053R8-Nucleo\Applications\Bluetooth_LE\SensorDemo

The project is ready to use in:

KEIL

IAR

ATOLLIC

And it is also present a readme.txt

See below.

