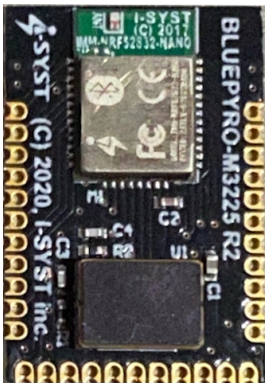
USER GUIDE

Bluepyro-M3225



Version 1.0

Revision history

Version	Date	Note	Contributor(s)	Approver
1.0	15 April 2021	Initial version	Ho Manh Tai	Nguyen Hoang Hoan

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Contents

1. Introduction

This document shows step-by-step to install Android Studio to develop Android apps with Bluepyro-M3225

1.1 Required components

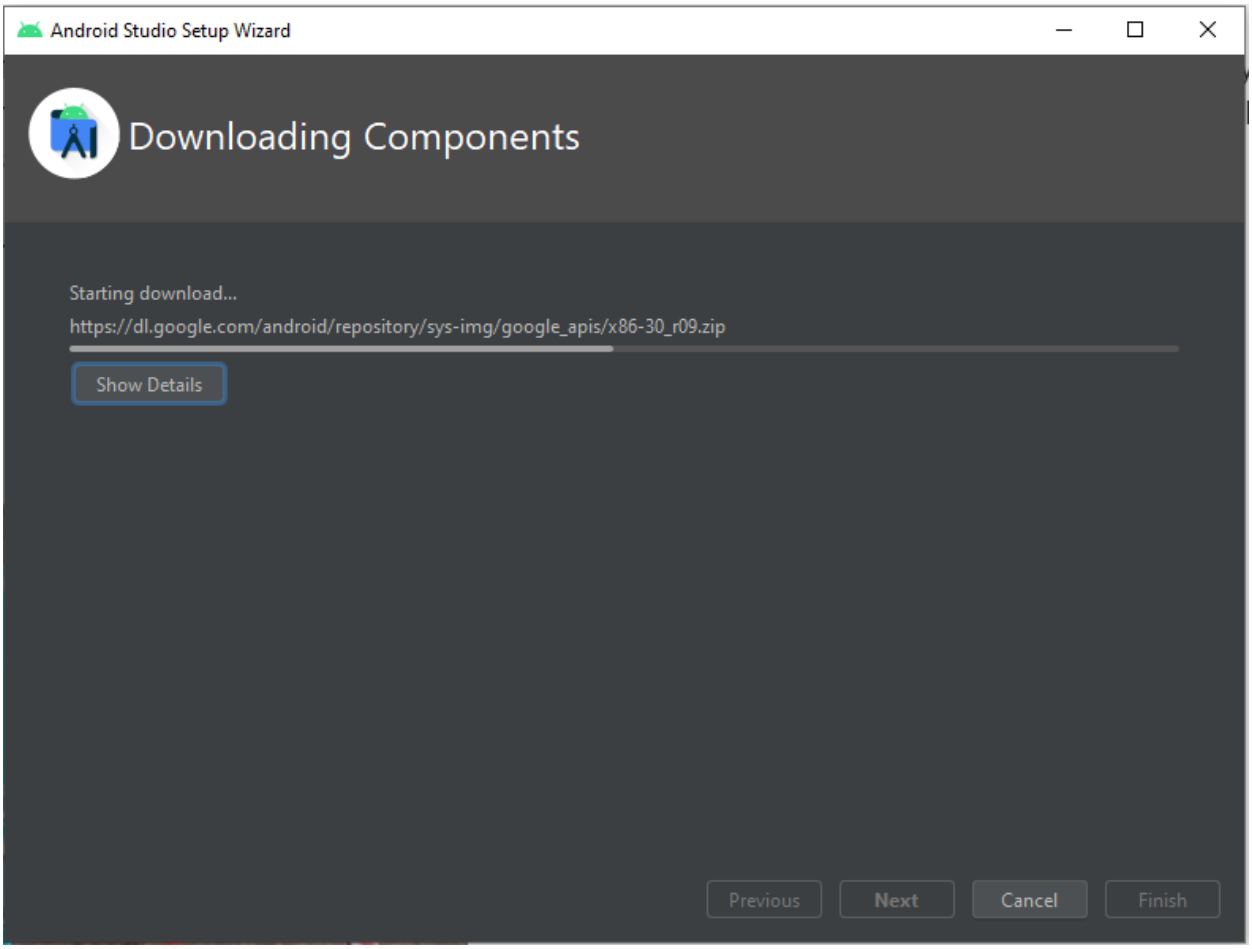
The following are needed for a full development environment Bluepyro-M3225:

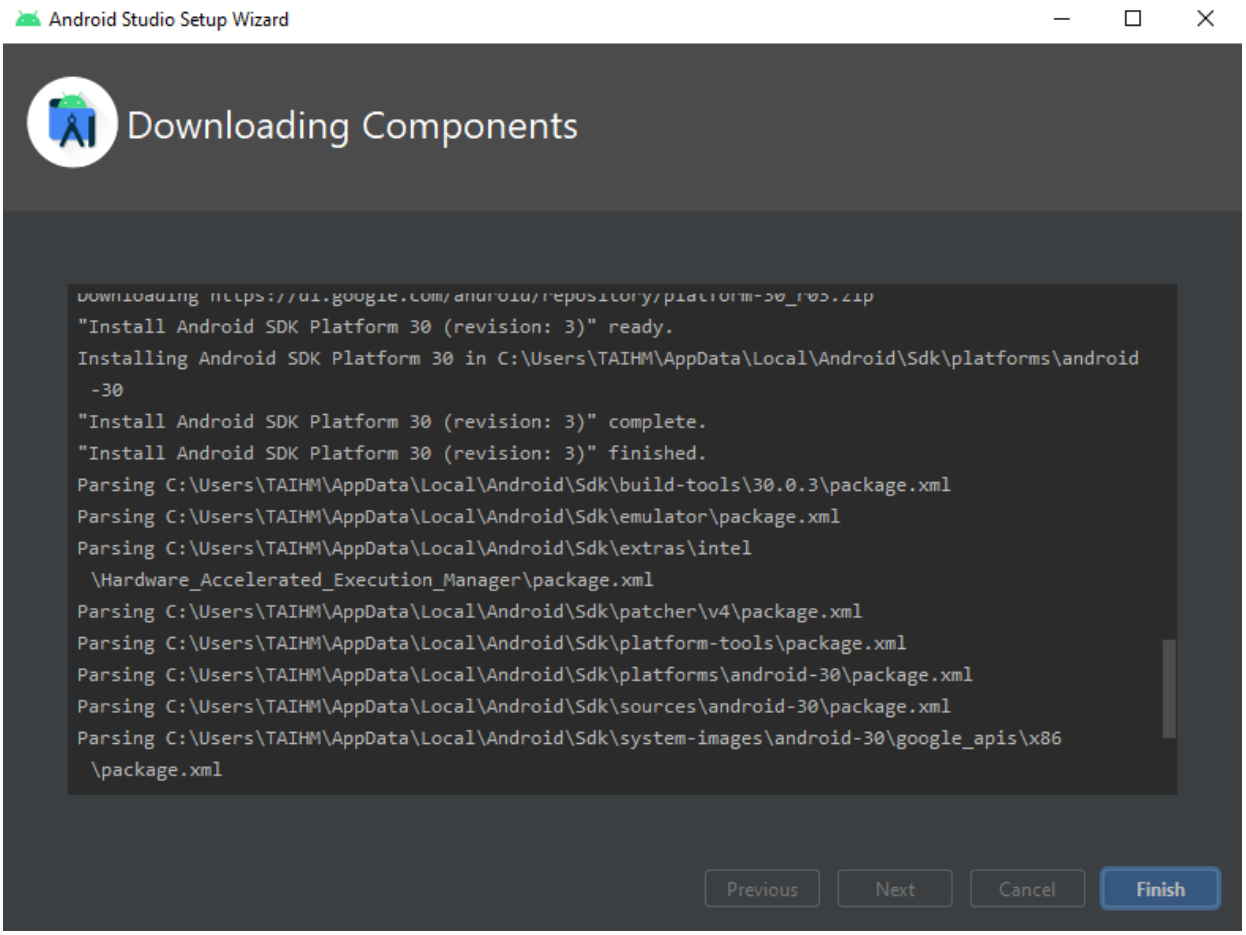
- Android Studio
- Eclipse
- Download source code Android app and firmware at I-SYST/BluePyro: BluePyro (github.com)

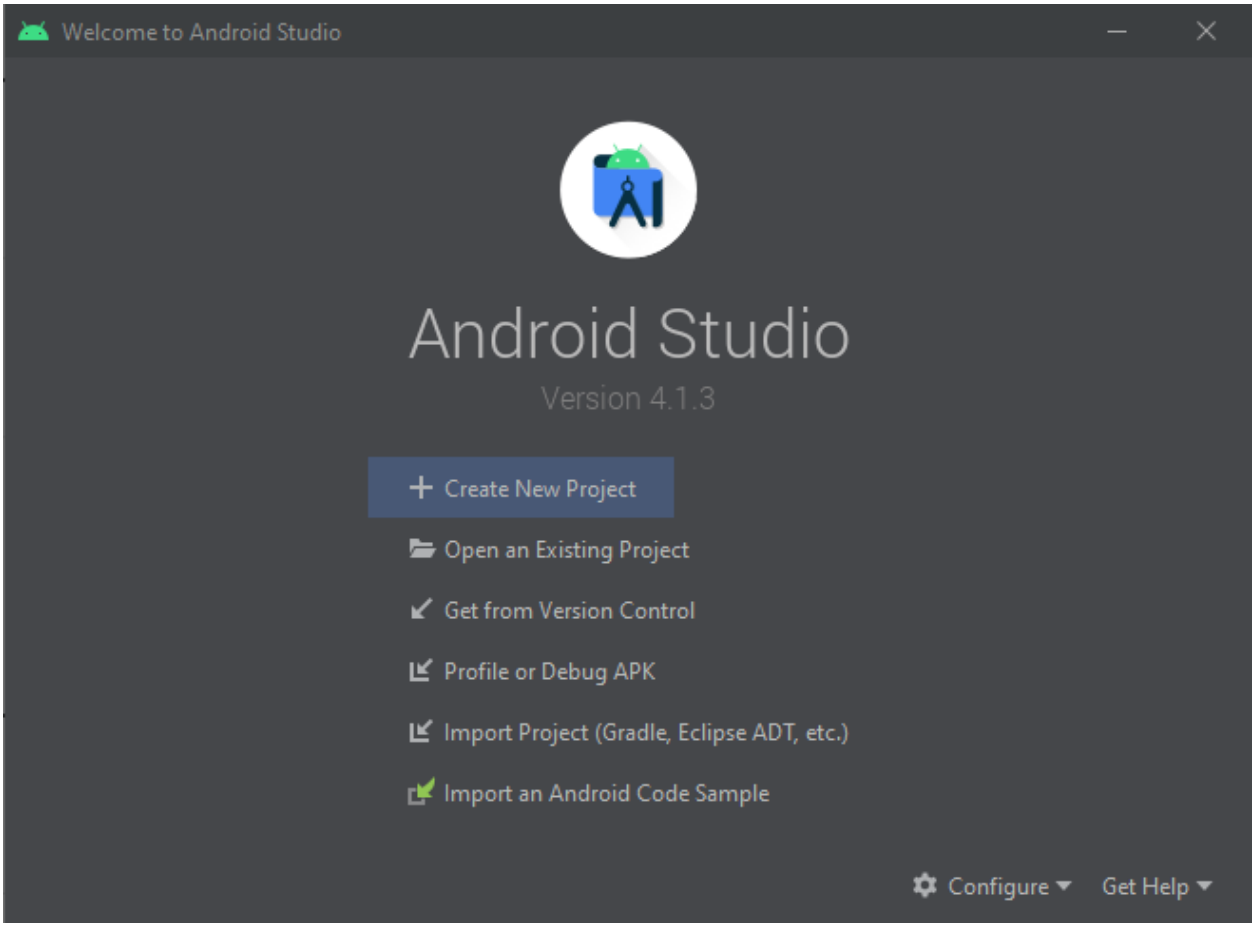
2. Installation

2.1. Install Android Studio

Download and install Android Studio to develop Android apps using Bluepyro-M3225 at the following link: https://developer.android.com/studio/
Download Android Studio and SDK tools | Android Developers
Follow the link below to install Android Studio: https://developer.android.com/studio/install
Install Android Studio | Android Developers

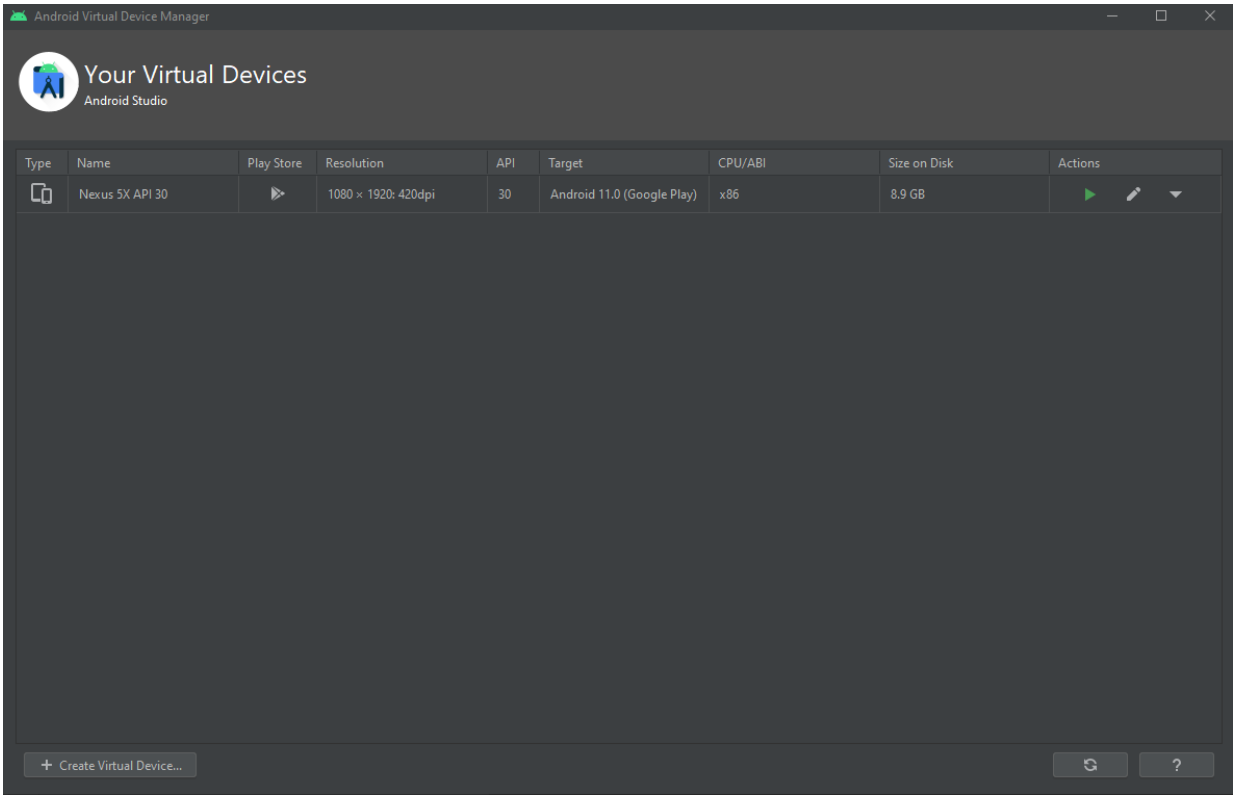






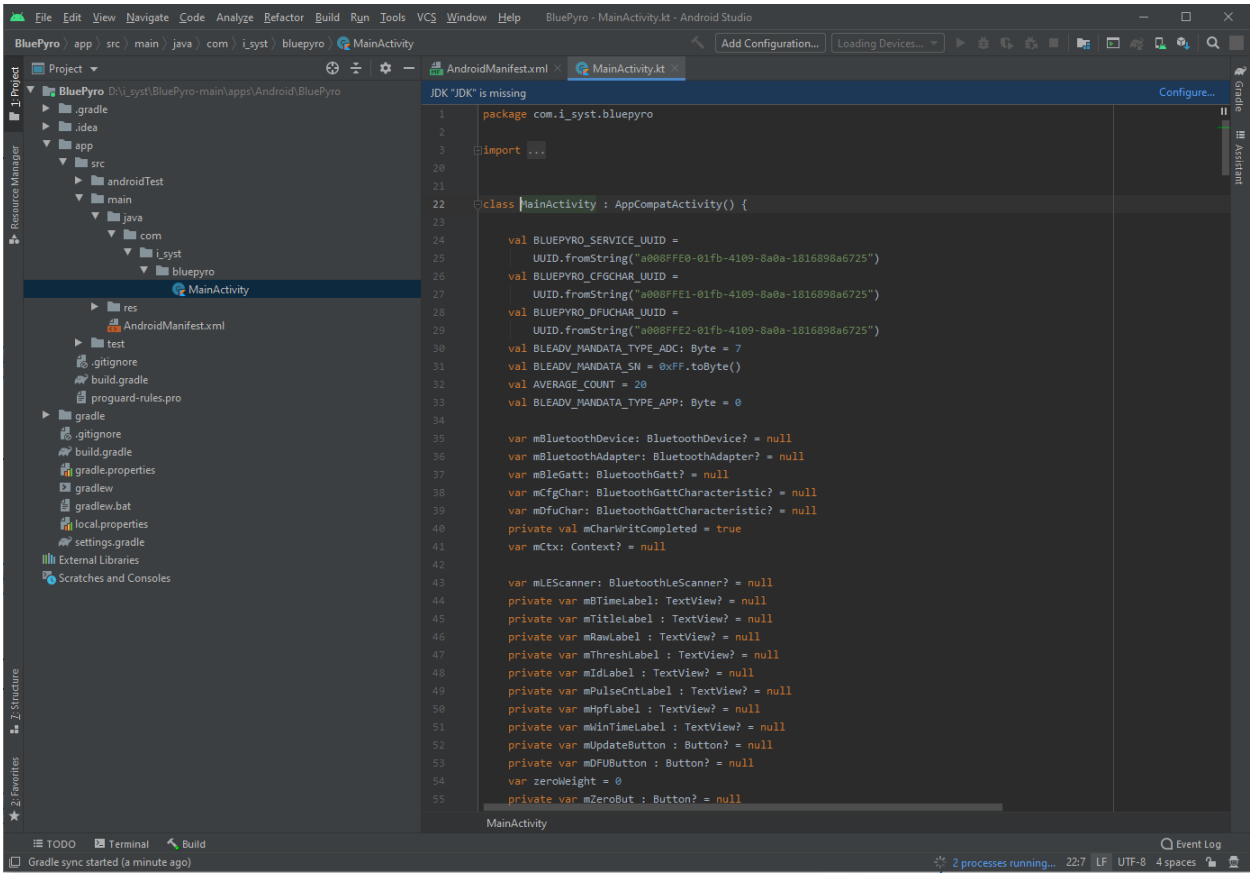
2.2. Create new virtual device

After finishing installation Android Studio, create a new Android virtual device in AVD Manager

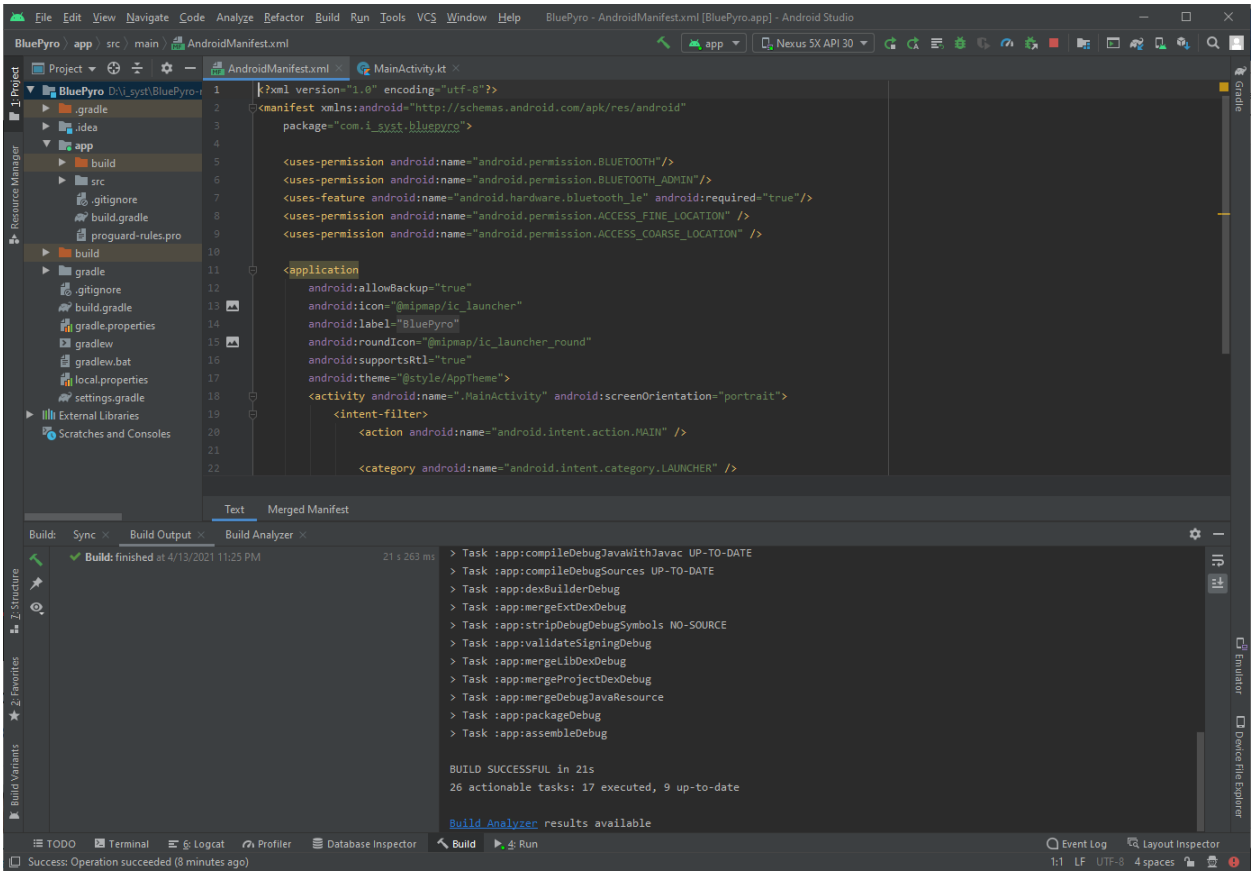


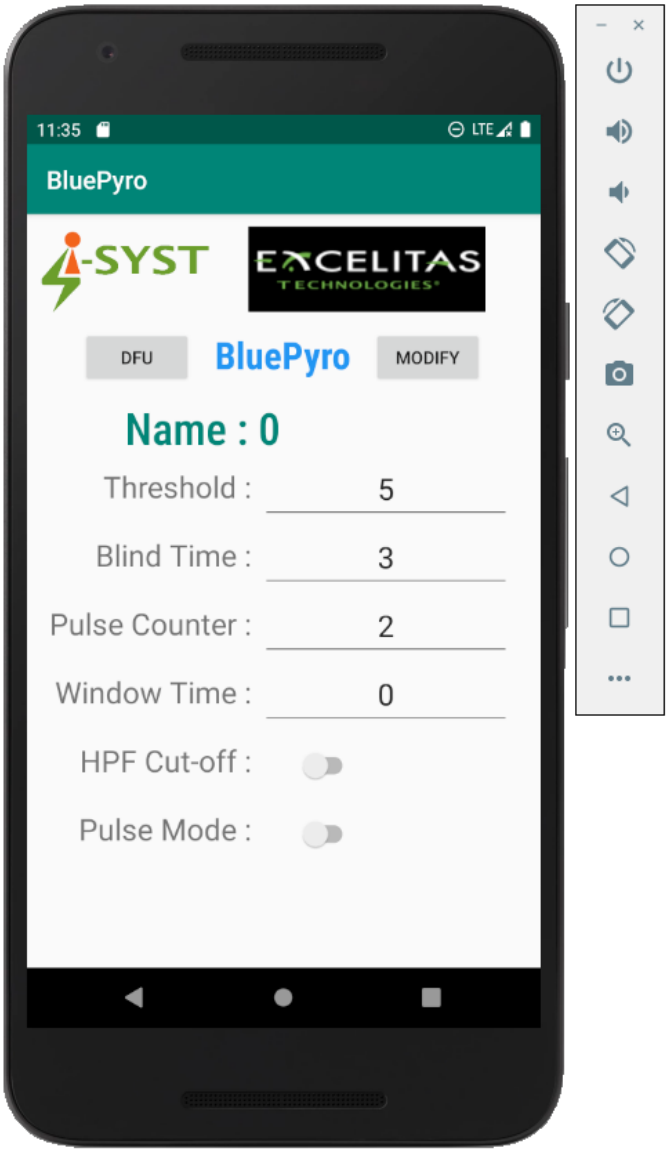
2.3. Import Android Project

Download source code Android app at https://github.com/I-SYST/BluePyro
Import Android project BluePyro



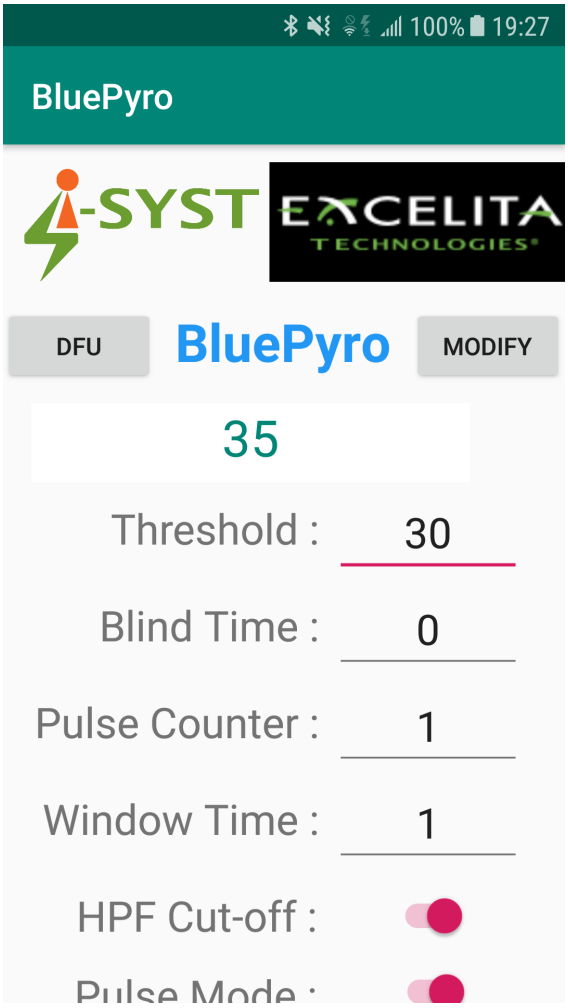
2.4. Run the Bluepyro-M3225 Android App Project with new Virtual device





2.5. Run on real Android device

Now it's ready to run on your Android device to test with Bluepyro-M3225.
Connect your Android device and run the project on your device.
Test the Bluepyro-M3225 device with Bluepyro app on your device.
Now you are freely to develop any android apps with Bluepyro-M3225.



2. Bluepyro-M3225 Firmware development with Eclipse IDE

Please read the installation guide "Eclipse IDE in firmware development with Iosonata" for Eclipse installation at Eclipse IDE in firmware development with IOsonata | I-SYST's Site.

In this section, we will show how to manually develop Bluepyro-M3225 Firmware by Eclipse.

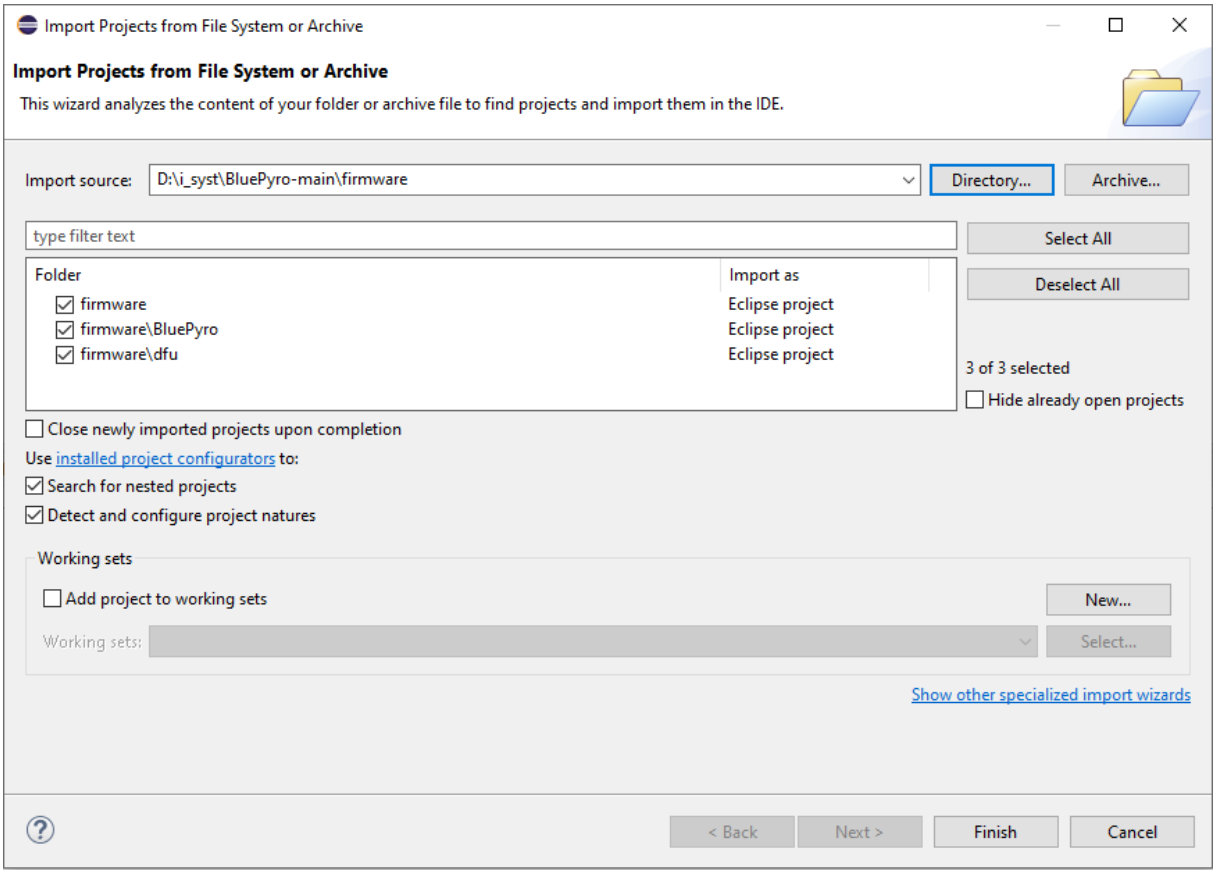
2.1. Download Bluepyro-M3225 Firmware

Download source code Bluepyro-M3225 firmware at:

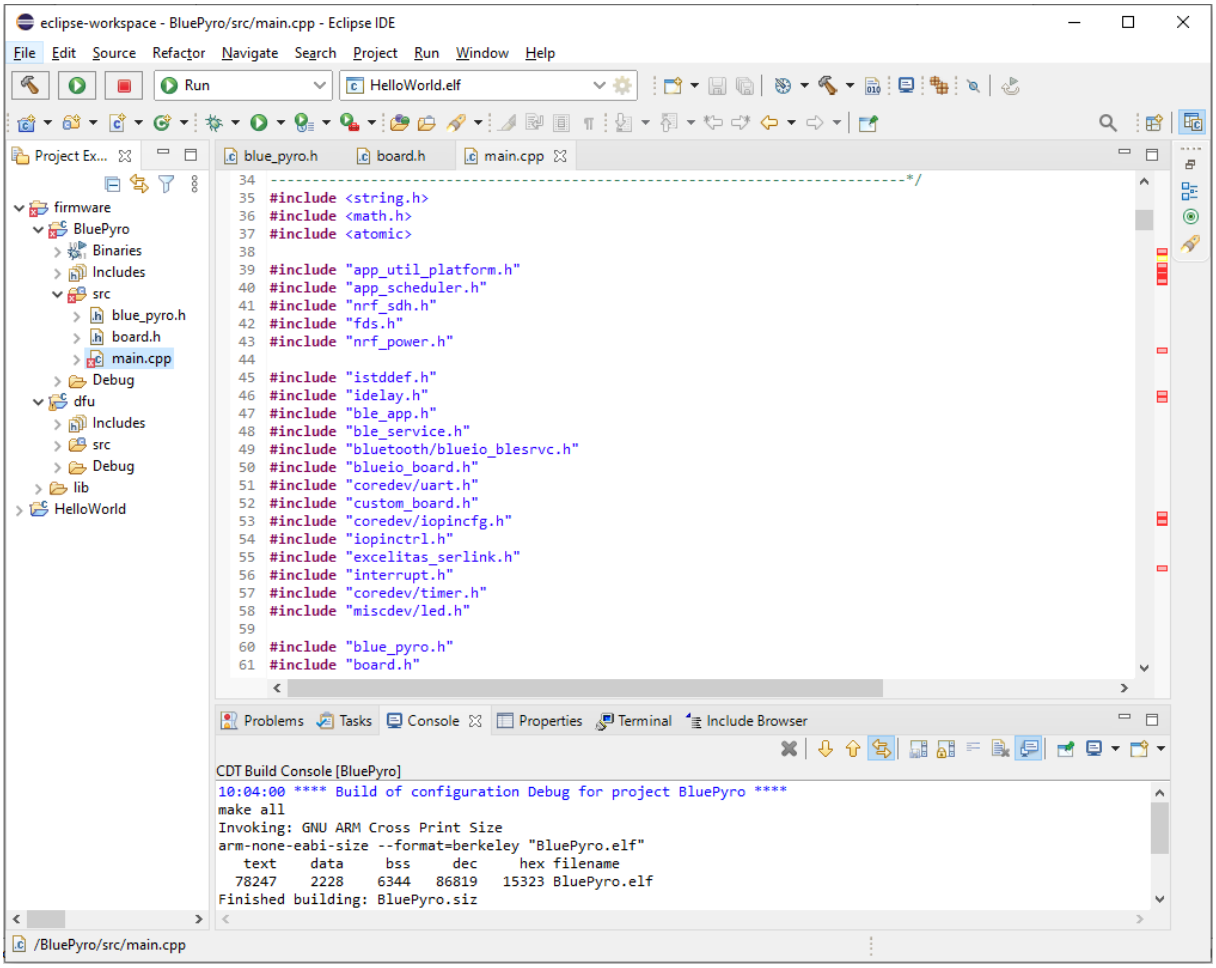
https://github.com/I-SYST/BluePyro

2.2 Import firmware projects to Eclipse

Select Open Projects from File System in File menu
Located the Bluepyro-M3225 Firmware directory.

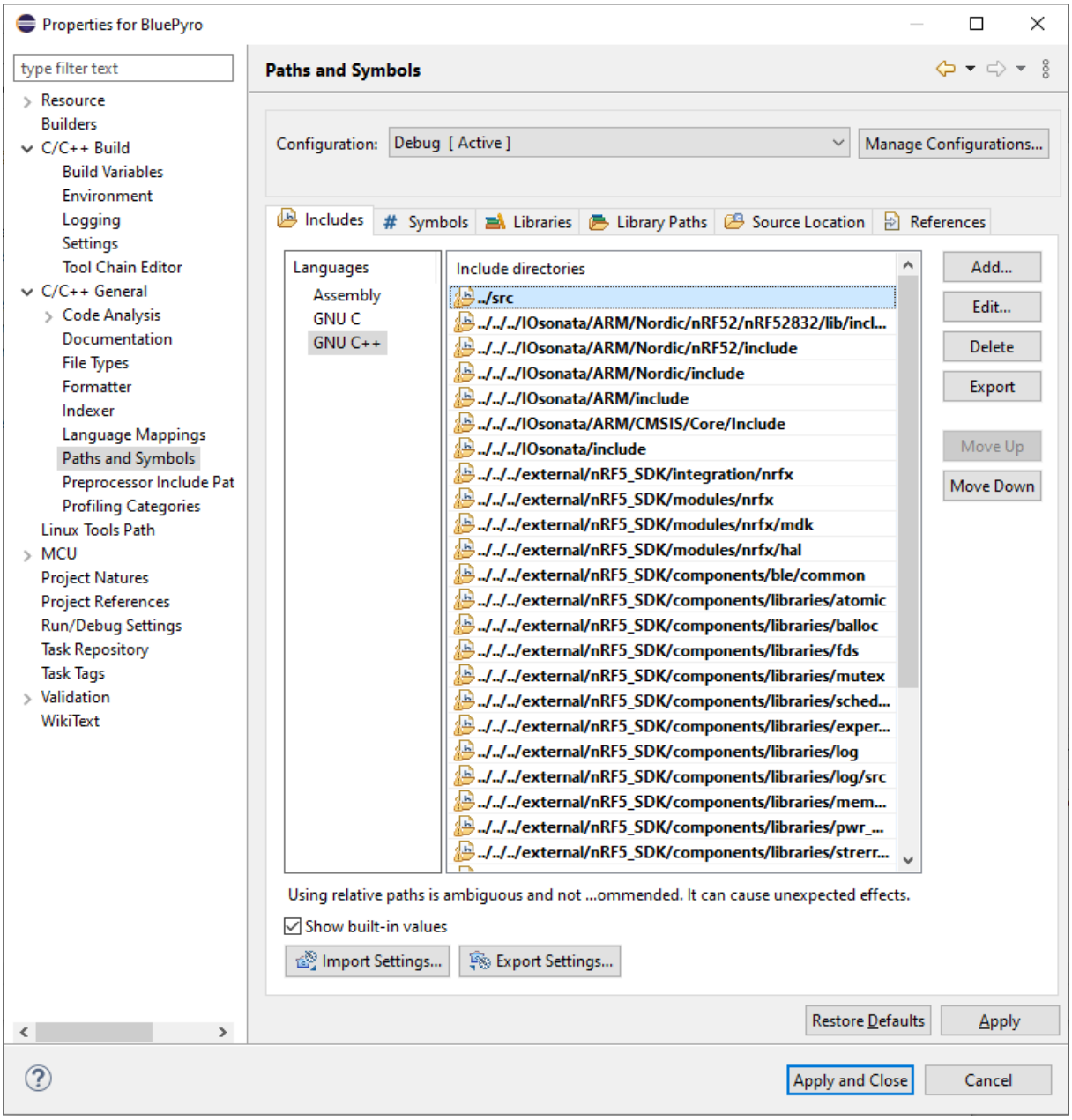


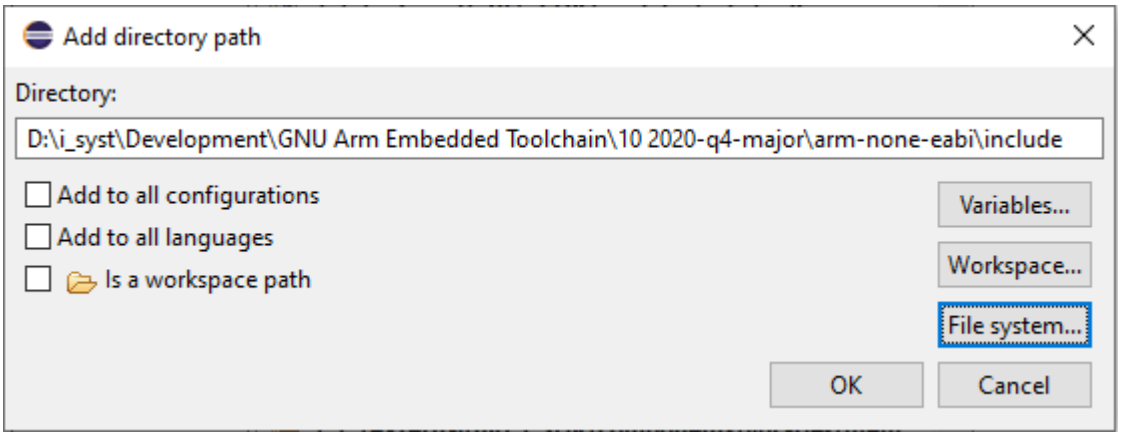
2.3 Build Bluepyro-M3225 Firmware Projects



You may need to add some more libraries

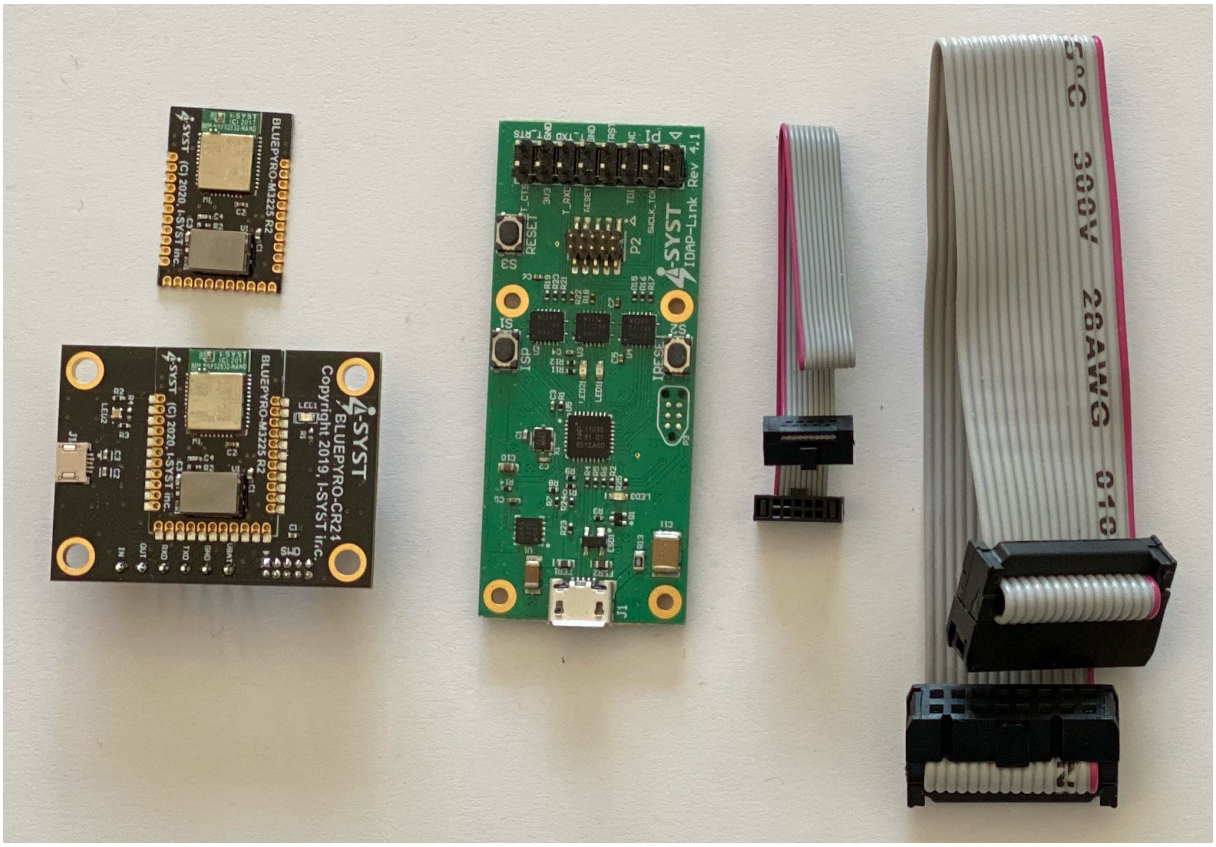
Right click on Bluepyro Project, select Project Properties→ C/C++ General→ Paths and Symbols→ Includes tab. Click Add button: Add directory path, select File system





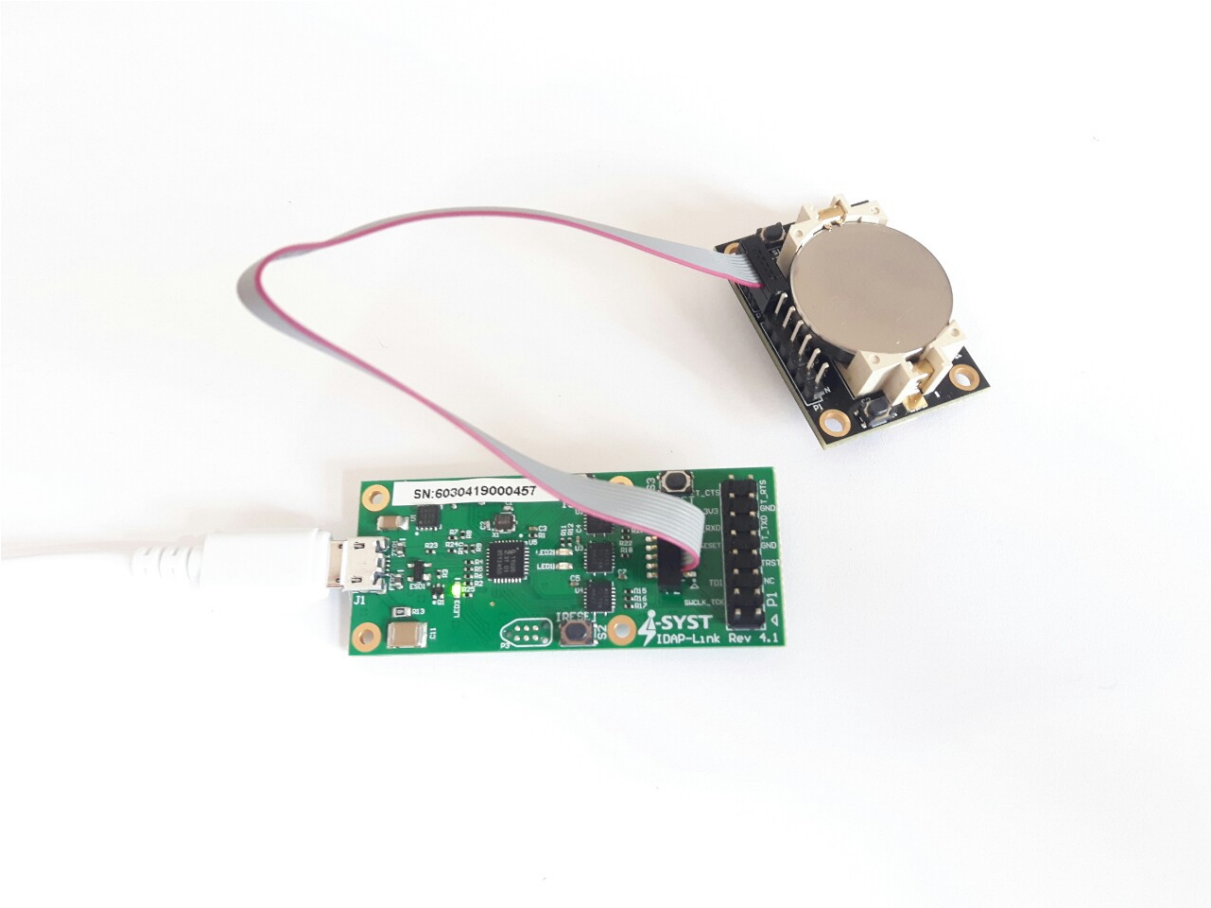
Right click on Bluepyro-M3225 Firmware project, select Build Project . Now you can build and manually develop Bluepyro-M3225 Firmware by yourself.

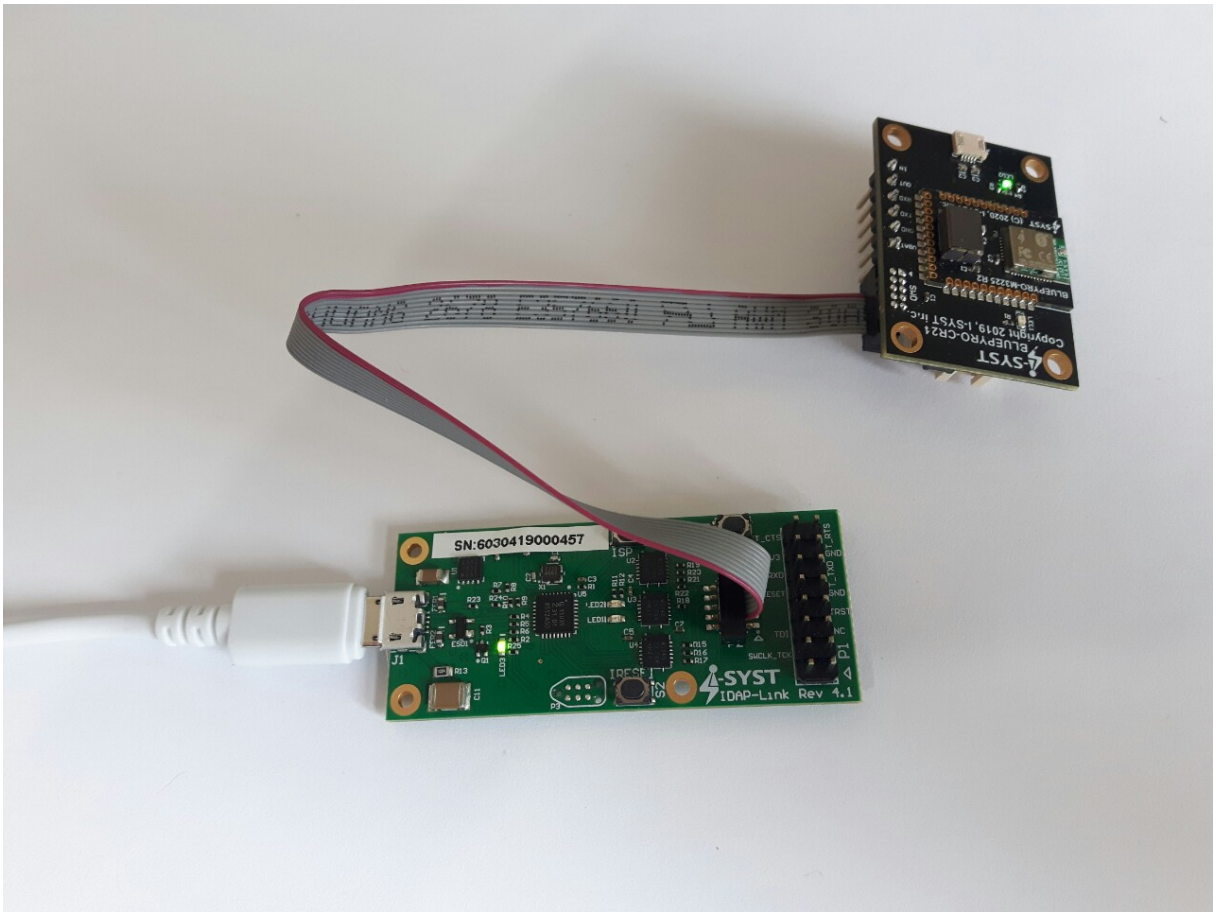
2.4 Connect Bluepyro-M3225 device



Prepare Bluepyro-M3225 development kit as the figure above include Bluepyro-M3225 board, IDAP-Link.

Connect Bluepyro-M3225 to computer.

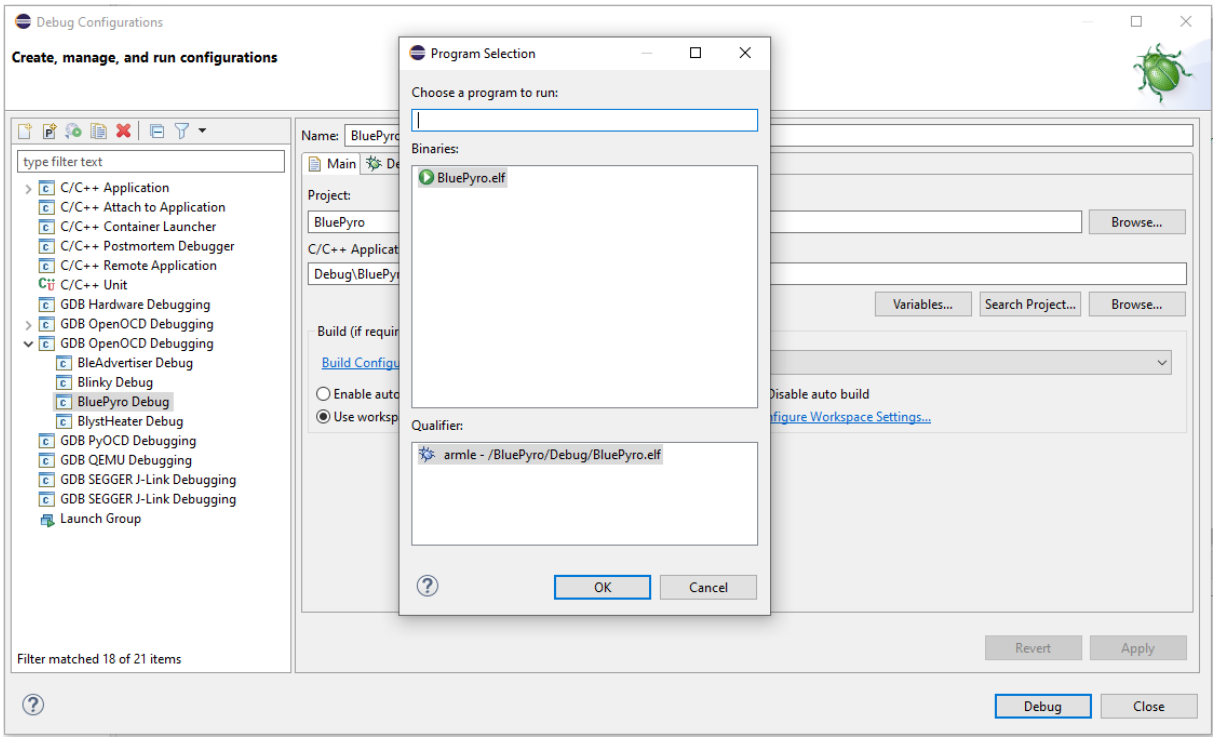


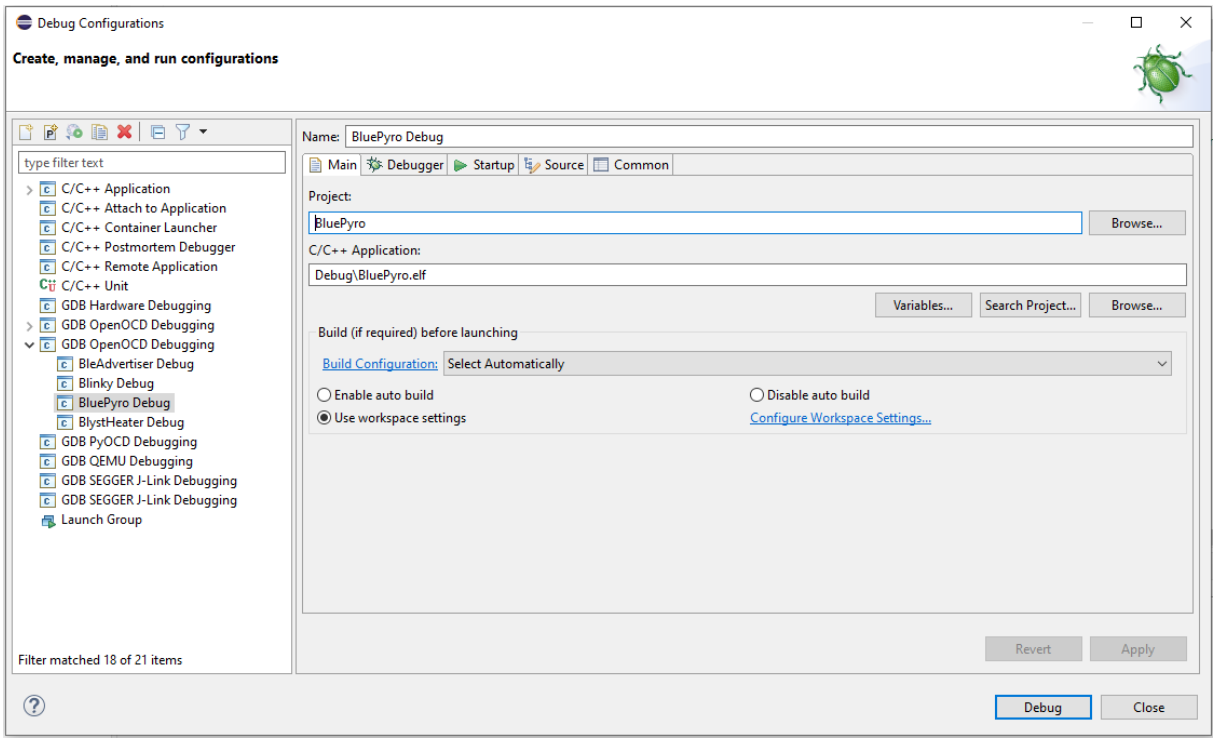


2.5 Debug Configurations

In order to debug the Bluepyro-M3225 firmware, we have to set the Debug Configurations as following:

In the Main tab, select C/C++ Application by clicking Search Project. Select BluePyro.elf file.



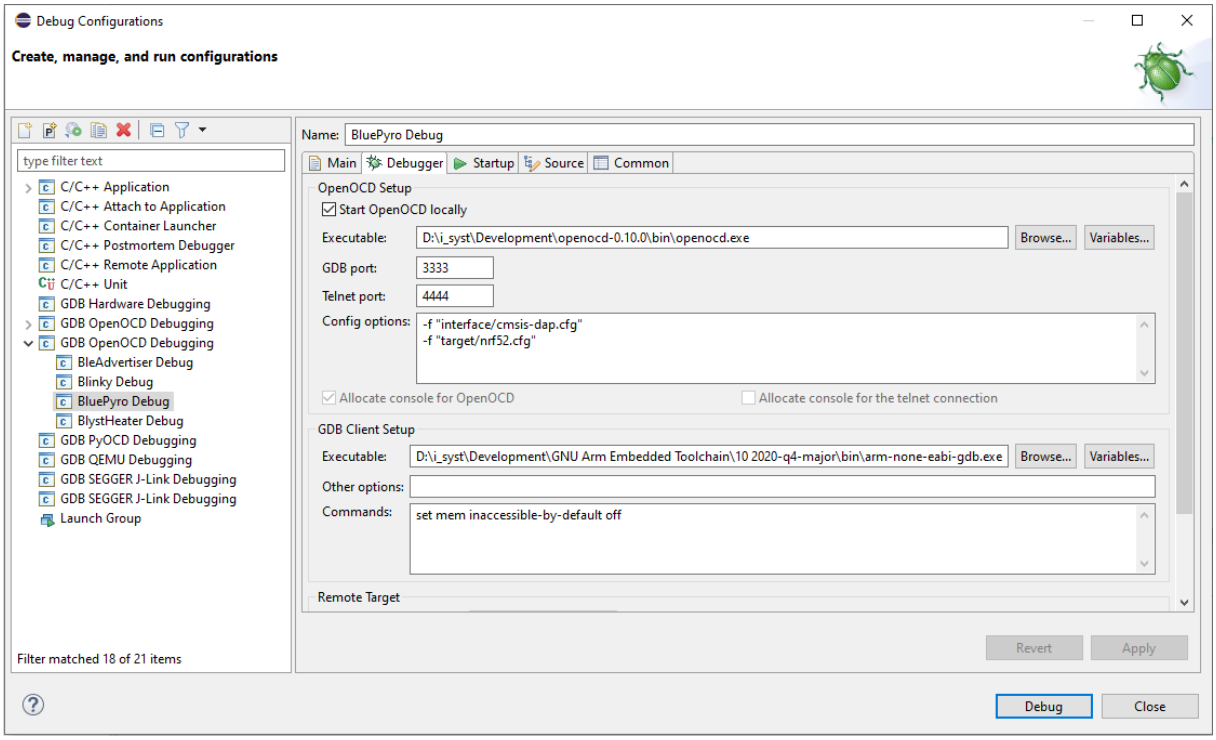


In the Debugger tab, set the Executable by browsing to the OpenOCD executable file.

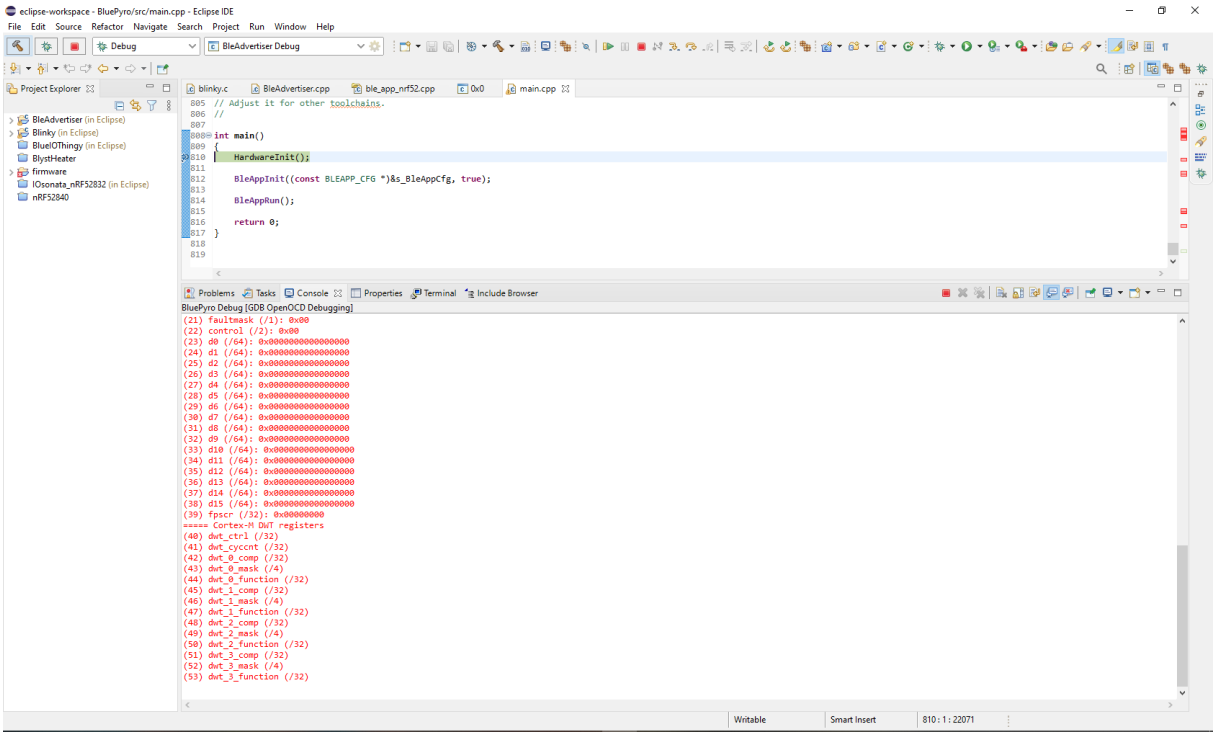
Set the Config Option:

-f "interface/cmsis-dap.cfg"

-f "target/nrf52.cfg"



Then click Debug button.



After you start the debugger, it will stop at main(). Now you can debug the firmware by clicking the

step button (F5, F6) to trace your source code line by line.

2.6 Flashing Firmware

Click Run button to run the firmware on your device.

Note:

Make sure that the softdevice is flashed first. Using Use IDAPnRFProg to flash NRF softdevice using IDAP-Link. Download here [IDAP-Link/M - Browse /Windows at SourceForge.net]

Run IDAPnRFProg by following command line:

```
$.\IDAPnRFProg.exe  .\external\nRF5_SDK\components\softdevice\s132\
hex\s132_nrf52_7.2.0_softdevice.hex
```