

CC 2640R2 Starter Guide

Table of contents

CC 2640 R2 2

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What the board is?

The CC2640R2F from Texas Instruments is a Bluetooth Low Energy (BLE) wireless microcontroller. It is a development board so,

Downloading PreRequisistes

1. Go to the website <https://www.ti.com/tool/SIMPLELINK-CC2640R2-SDK>
2. Here, after scrolling a little down, you can see a box called SIMPLELINK-CC2640R2-SDK — SimpleLink™ CC2640R2 software development kit. Click the Download Options button.
3. Now, click on the Windows Installer for SimpleLink CC2640R2 SDK to download the SDK and Windows Installer for CCS IDE for the CCS 9.0.
4. Alternatively, use this link for SDK (https://dr-download.ti.com/secure/software-development/software-development-kit-sdk/MD-6b60X4Uuh0/5.30.00.03/simplelink_cc2640r2_sdk_5_30_00_03.exe) and this link for the IDE (https://dr-download.ti.com/software-development/ide-configuration-compiler-or-debugger/MD-J1VdearkvK/9.1.0.00010/CCS9.1.0.00010_win64.zip)

Here (https://dev.ti.com/tirex/explore/node?node=A_ADDuSZNqZ-L1vQpWZLVpEA_com.ti.SIMPLELINK_CC2640R2_SDK_krol.2c_LATEST) is a brief guide from Simple Link Academy.

Here (https://dev.ti.com/tirex/explore/node?node=A_AK8JBqQgTVTBgcAJOnmHWQ_com.ti.SIMPLELINK_CC2640R2_SDK_krol.2c_LATEST&search=project%20zero) is the code for project zero for reference purposes



Project Zero is a demo project to showcase the BLE Capabilities of the Chip. An app called "BLE Scanner" by BluePixels Technologies must be installed for the same.

Simple Link Academy is a great place to check out for the tutorials of the board.

Installation

1. First, install the Code Composer Studio. Make sure that it is Version 9.0. Since the latest versions might not work with it. Also, make sure that if Custom Installation option is selected, to download support for the CC 26XX Boards.
2. Second, install the CC 2640R2 SDK. It contains some extra libraries and the example projects for CC 2640R2.
3. Now, open Code Composer and select File -> Import Project -> Code Composer Studio -> CCS Projects
4. Now, in the options to import the project, go to the SDK Directory. Normally, it should be C://Ti//simplelink_cc2640r2_sdk.....
5. Now, inside the folder, go to examples -> rtos -> CC2640R2_LAUNCHXL -> blestack -> project_zero. Now, you should see two project_zero projects detected. Open them.
6. Now, two projects should be imported. One will be the app and the other one will be the stack library.
7. Now, go to Project -> Build All. This should compile and build the .out file, hopefully.
8. Now, go to Run -> Load -> Select Project to Load. In the pop-up, select the app folder between the two and go to the FlashROM_StackLibrary Folder and select the .out file to load. The flashing of the code should happen automatically.
9. If the red light in the board is turned on, it means that the code is being uploaded.
10. Now, use the BLE Scanner App to check for the board and check the various features of it.