

SX1276mbedshield

cmonaton

August 2019

1 Matériel

Carte nucleo F411RE + SX1276 mbed shield



Figure 1: nucleo f411RE



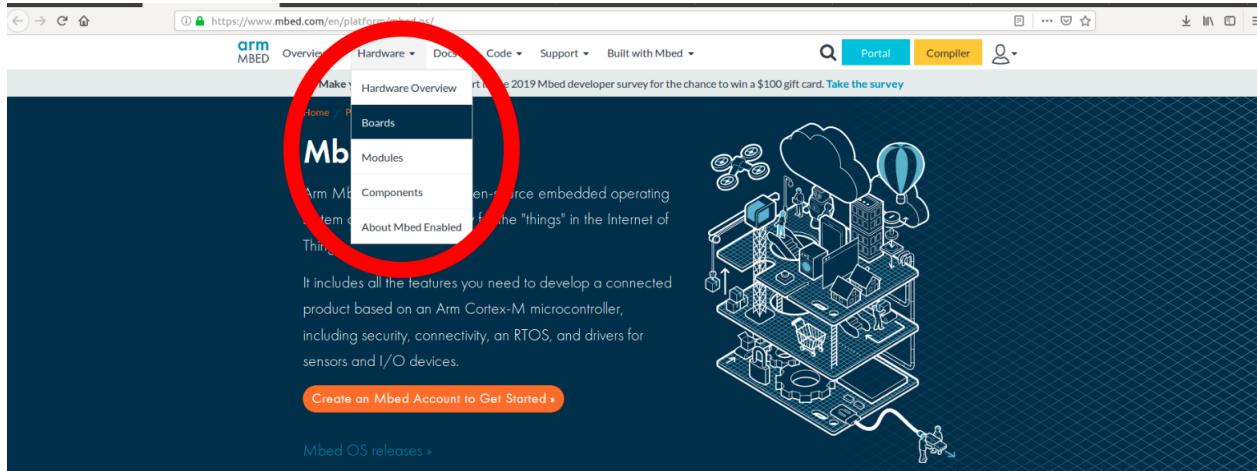
Figure 2: SX1276 mbed shield

Branchez l'antenne LoRa avant d'alimenter la carte sinon la carte grille

2 Générer un binaire pour la carte

Se créer un compte sur arm mbed : [https://www.mbed.com/en/platform/
mbed-os/](https://www.mbed.com/en/platform/mbed-os/)

Dans l'onglet *Boards*



Mbed OS Features

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Modular

Necessary libraries are included automatically on your device, allowing you to concentrate on writing application code.

Secure

Multilayer security helps to protect your IoT solution, from isolated security domains through to Mbed TLS for secure communications.

[More Mbed OS features >](#)

Connected

We give you a wide range of communications options with drivers for Bluetooth Low Energy, Thread, 6LoWPAN, Mobile IoT (LPWA), Ethernet and WiFi.

Checher la carte nucleo F411RE
Puis l'ajouter au compilateur :



Board Partner



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Overview

The STM32 Nucleo board provides an affordable and flexible way for users to try out new ideas and build prototypes with any STM32 microcontroller line, choosing from the various combinations of performance, power consumption and features.

The Arduino™ connectivity support and ST Morpho headers make it easy to expand the functionality of the STM32 Nucleo open development platform with a wide choice of specialized shields.

The STM32 Nucleo board does not require any separate probe as it integrates the ST-Link/V2-1 debugger/programmer.

[1. Overview](#)

[2. Microcontroller features](#)

[3. Nucleo features](#)

[4. Board pinout](#)

[5. Supported shields](#)

[6. Getting started](#)

[7. Technical references](#)

[8. Known limitations](#)

[9. Tips and Tricks](#)

Ouvrir le compilateur :

NUCLEO-F411RE

Affordable and flexible platform to ease prototyping using a STM32F411RET6 microcontroller.



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Table of Contents
1. Overview
2. Microcontroller features
3. Nucleo features
4. Board pinout
5. Supported shields
6. Getting started
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8. Known limitations
9. Tips and Tricks

nucleo_f411re as the target name.

Board Partner

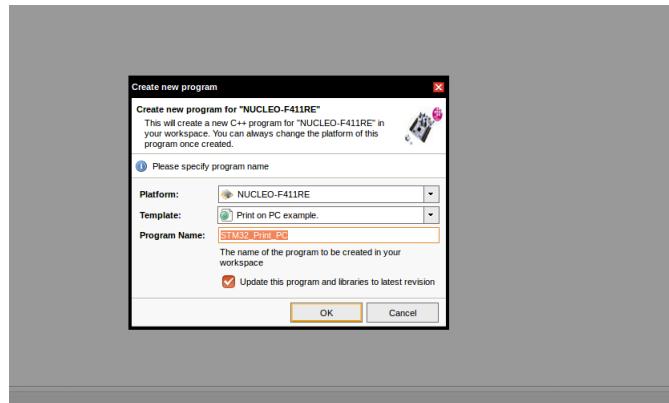
ST

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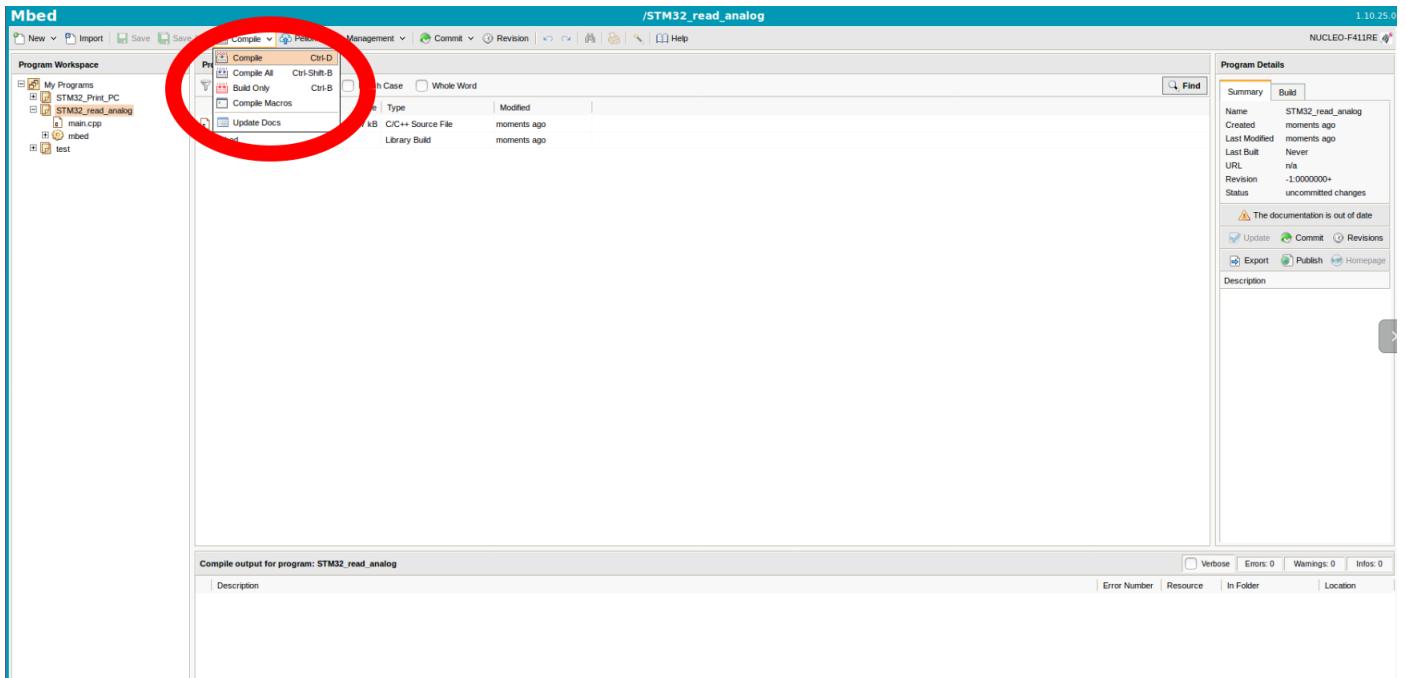
[Open Mbed Compiler](#)

[Buy Now](#)

Choisir un programme dans la liste :



Compilez :



Le fichier binaire est à télécharger.

3 Télécharger un firmware sur la carte

Avec le logiciel STM32Cube programmer

3.1 Installation de STM32 cube programmer

Ce logiciel permet de télécharger le code sur la carte.

Note: Il semble impossible d'installer ce programme sous Ubuntu 18.04.3 LTS
Sur Ubuntu 16.04.6 LTS

- Avant de lancer l'installer :

```
sudo apt-get install openjfx
```

- Se créer un compte et télécharger le logiciel à :

```
https://www.st.com/en/development-tools/stm32cubeprog.html
```

- Téléchargez STSW-LINK007 à :

```
https://www.st.com/en/development-tools/stsw-link007.html
```

- Ajouter des règles dans /etc/udev/rules.d

```

cd /extraction_path/stsw-link007/AllPlatforms/StlinkRulesFilesForLinux

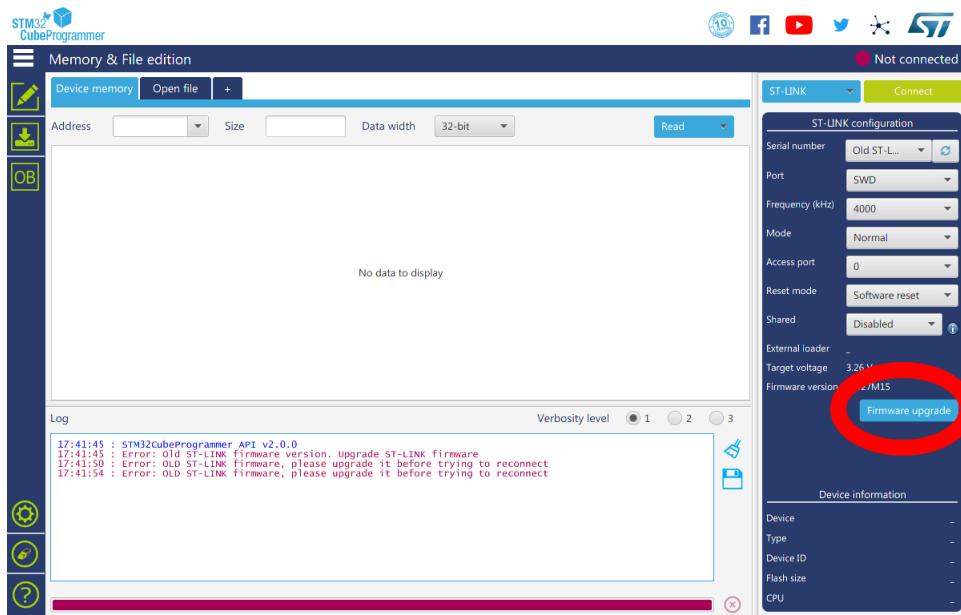
sudo cp *.* /etc/udev/rules.d

sudo udevadm control --reload-rules #ou rebooter le PC

```

3.2 Si nécessaire

- Installer libusb
- sudo apt-get install libusb-1.0
- upgrader STlink :



3.3 Téléchargement du firmware

1. Connecter la carte : Parfois la carte ne peut plus se connecter au PC pour flasher le code. Explication : le FW bloque le port de STLINK Solution : Maintenir appuyé le bouton reset de la carte au moment de la connection avec STM32Cube Programmer
2. A côté de "device memory" dans un onglet selon l'image, ajouter un fichier et "Download" un fichier .elf ou .bin

