Melange Systems Private Limited
*Wireless controls in action*

# TarangMini SM20LR03 Code loading User Guide

Document Version: 01 Initial Release

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## Download and install the STM32 CubeProgrammer application software

This section provides instructions for downloading and installing the STM32 CubeProgrammer. If the TarangMini SM20LR03 module is not automatically detected when it is attached to your computer, you may also need to install the USB drivers.

## Requirements

To program TarangMini SM20LR03 module with STM32 CubeProgrammer application software, you must connect the **TarangMini demo board** [USB adapter board] to your computer. Programming requires below piece of external hardware:

- USB A-Mini Cable

## Install STM32 CubeProgrammer application software

1. Navigate to https://www.st.com/en/development-tools/stm32cubeprog.html#overview&secondary=st-news-highlights
2. Select the latest version of the software from the dropdown list and click on the Get software to download file.



3. When the file finishes downloading, run the executable file and follow the steps in the STM32 CubeProgrammer setup Wizard.

## Install USB drivers

The required USB drivers are automatically installed the first time you connect a TarangMini Demo board to your computer. If the board drivers do not automatically install, use the following instructions to install the board drivers manually.

1. Go to the FTDI drivers page: https://www.ftdichip.com/Drivers/VCP.htm
2. Locate the correct driver for your operating system
3. For the Windows operating systems, click the **setup executable** link. A zip file Downloads.

| Operating System | Release Date | Processor Architecture | | | | | | | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | x86 (32-bit) | x64 (64-bit) | PPC | ARM | MIPSII | MIPSIV | SH4 | |
| Windows* | 2017-08-30 | 2.12.28 | 2.12.28 | - | - | - | - | - | WHQL Certified. Includes VCP and D2XX. Available as a setup executable. Please read the Release Notes and Installation Guides. |
| Linux | - | - | - | - | - | - | - | - | All FTDI devices now supported in Ubuntu 11.10, kernel 3.0.0-19 Refer to TN-101 if you need a custom VCP VID/PID in Linux VCP drivers are integrated into the kernel. |
| Mac OS X 10.3 to 10.8 | 2012-08-10 | 2.2.18 | 2.2.18 | 2.2.18 | - | - | - | - | Refer to TN-105 if you need a custom VCP VID/PID in MAC OS |
| Mac OS X 10.9 and above | 2019-12-24 | - | 2.4.2 | - | - | - | - | - | This driver is signed by Apple |
| Windows CE 4.2-5.2** | 2012-01-06 | 1.1.0.20 | - | - | 1.1.0.20 | 1.1.0.10 | 1.1.0.10 | 1.1.0.10 | |
| Windows CE 6.0/7.0 | 2016-11-03 | 1.1.0.22 CE 6.0 CAT CE 7.0 CAT | - | - | 1.1.0.22 CE 6.0 CAT CE 7.0 CAT | 1.1.0.10 | 1.1.0.10 | 1.1.0.10 | For use of the CAT files supplied for ARM and x86 builds refer to AN_319 |
| Windows CE 2013 | 2015-03-06 | 1.0.0 | | | 1.0.0 | | | | VCP Driver Support for WinCE2013 |

4. Right click the zip and select Extract All. A folder displays with the setup file
5. Double click the setup file to run it
6. Follow the steps in the installation wizard.

# Hardware overview

This section provides information about the steps required to work with TarangMini Demo board [USB adapter board].
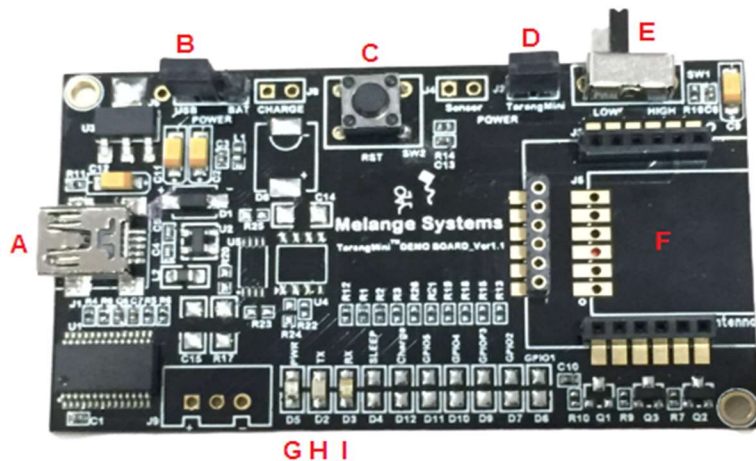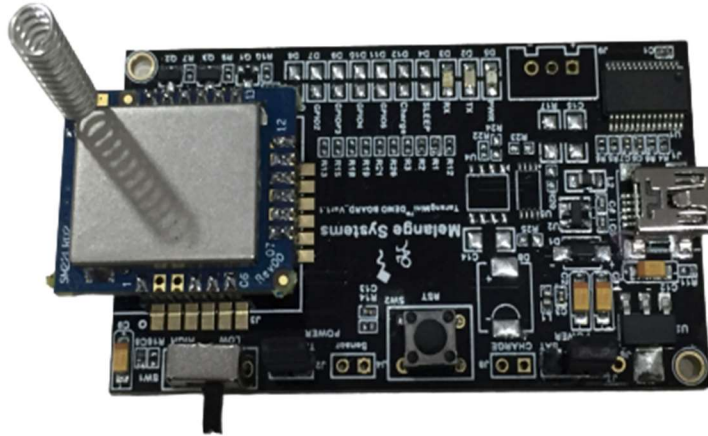
# General features



Image: TarangMini Demo board [USB adapter board]

A. USB Mini Connector
B. Jumper- USB Mode
C. Reset Button
D. Jumper- TarangMini Mode
E. Jumper- Boot Mode
F. TarangMini SM20LR03 Module socket connector
G. Status LED- Power
H. Status LED- TXD
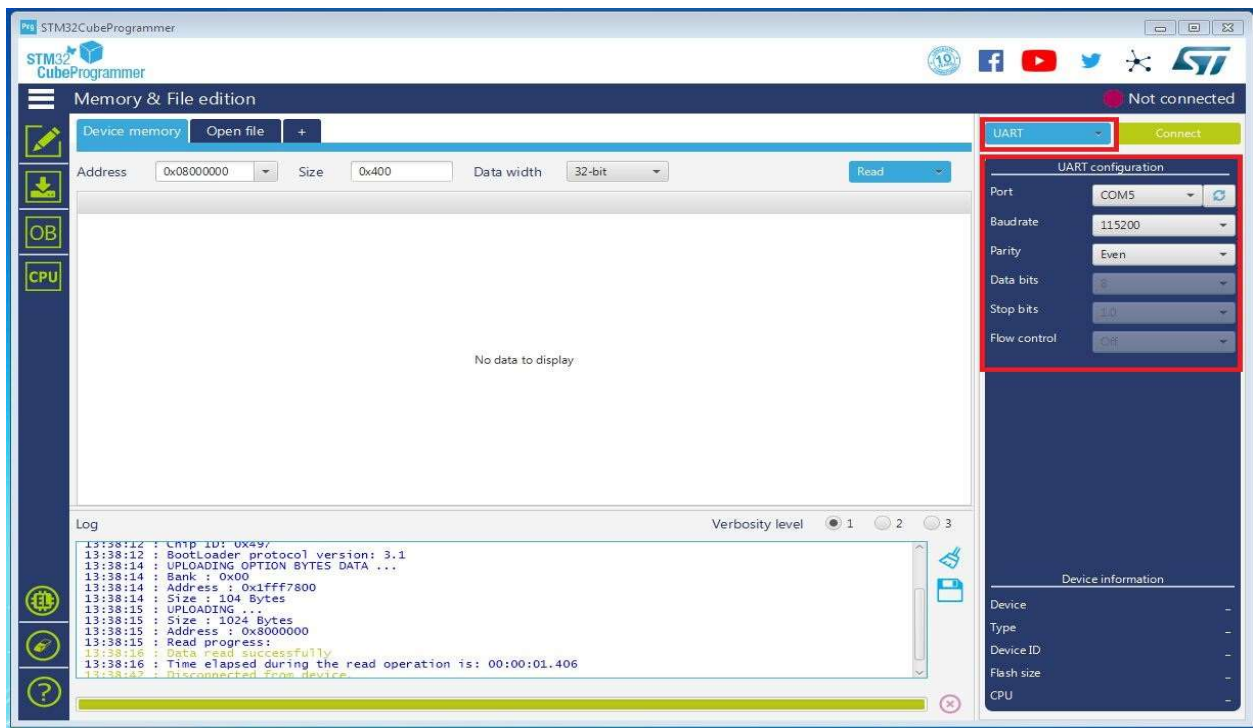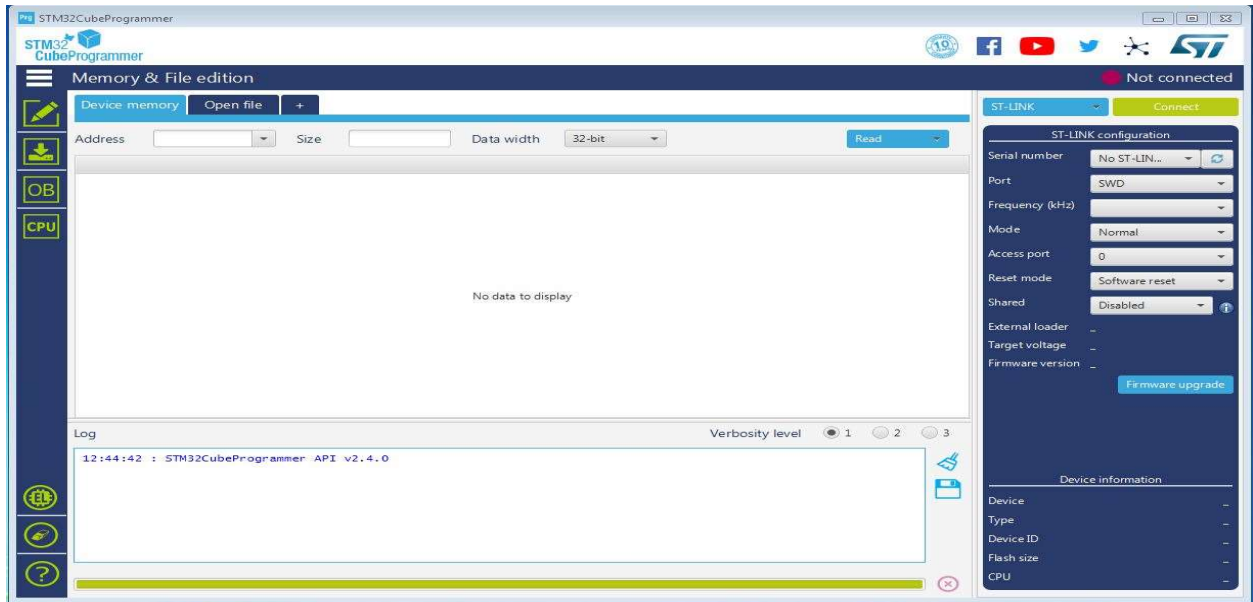I. Status LED- RXD

## Steps to be followed for TarangMini Demo Board,

1> The TarangMini SM20LR03 module must be in a TarangMini demo board [USB adapter board] connected to your PC with the USB cable.
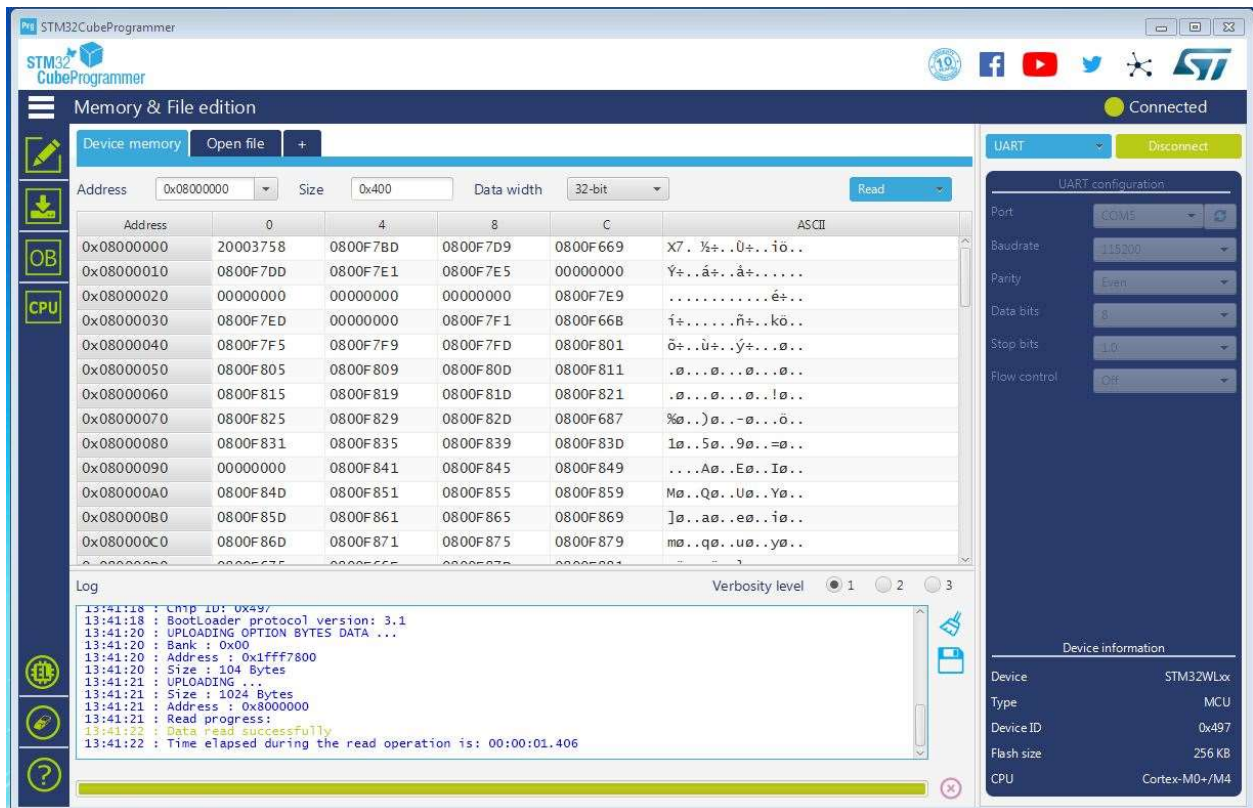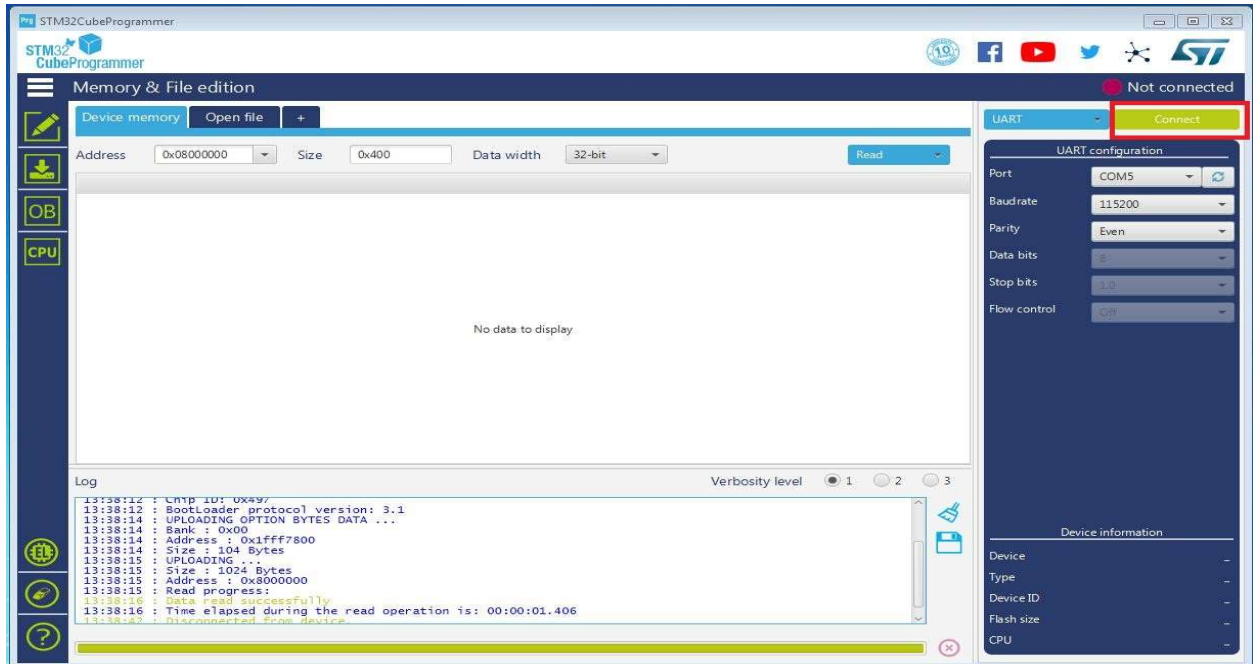


2> Insert the TarangMini SM20LR03 module
3> Select the Boot switch to High
4> Apply reset on the board
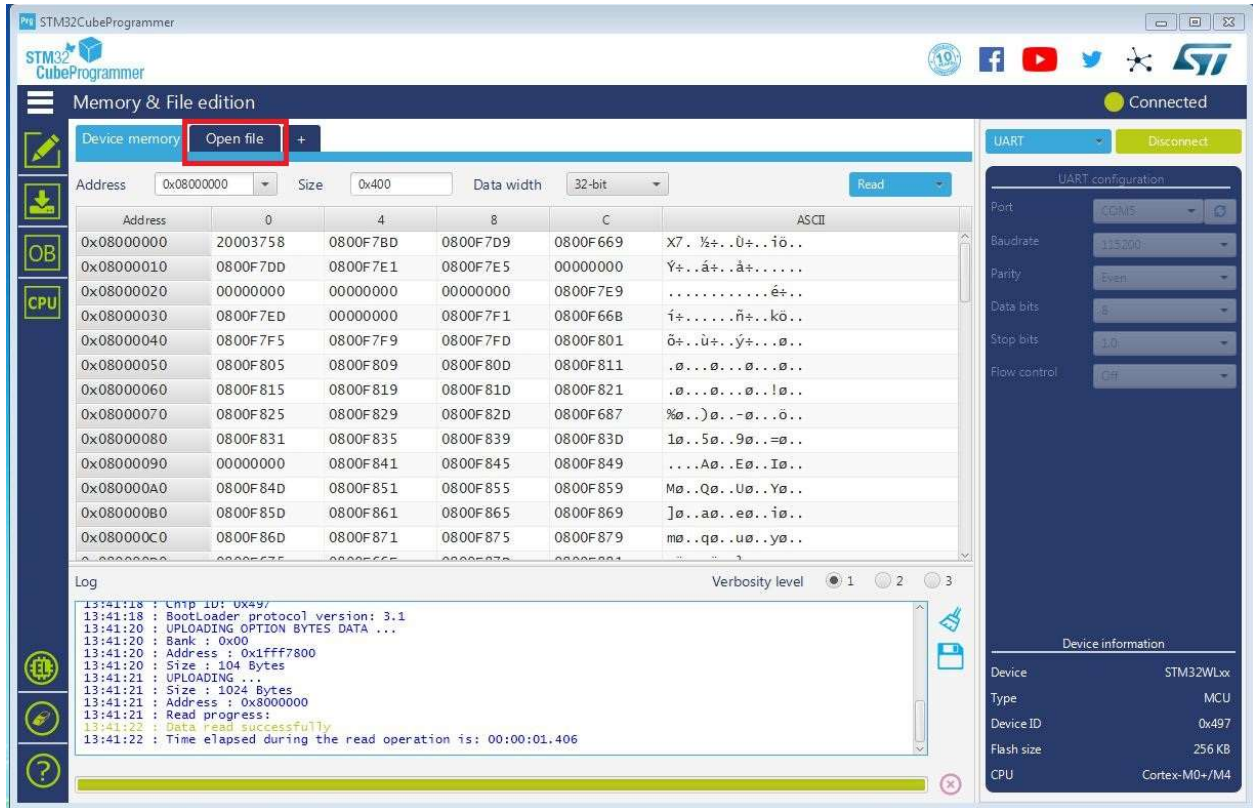
## Steps to be followed on the STM32 CubeProgrammer,
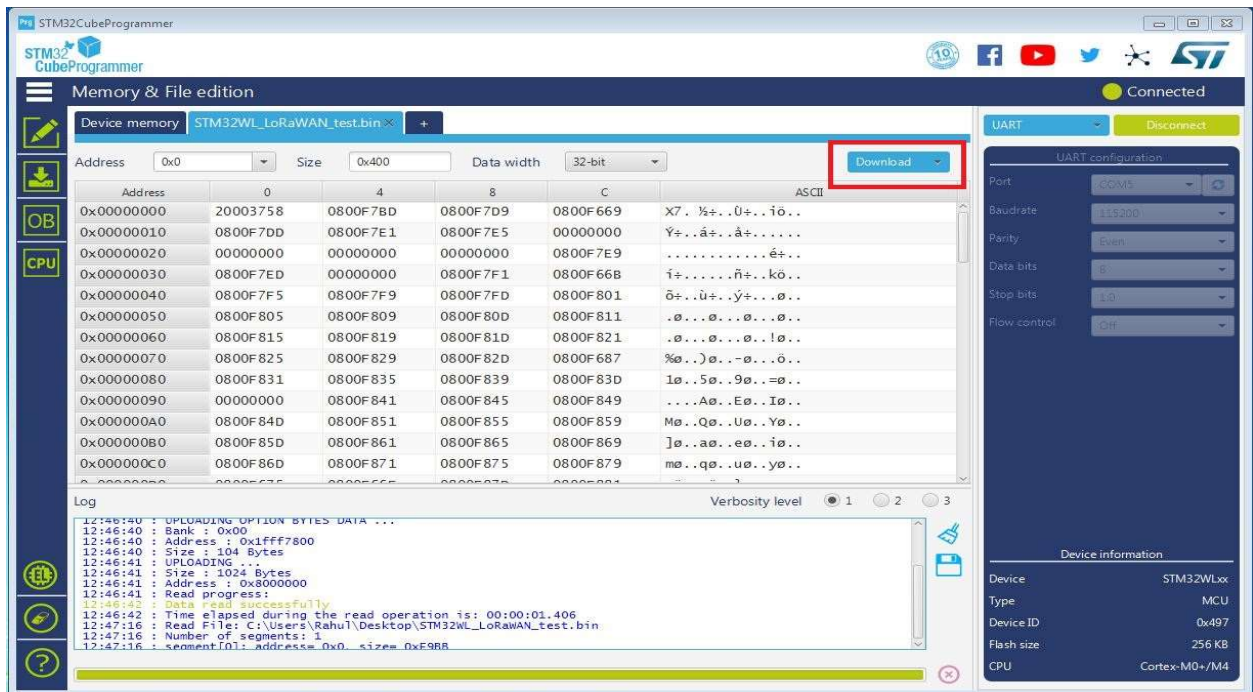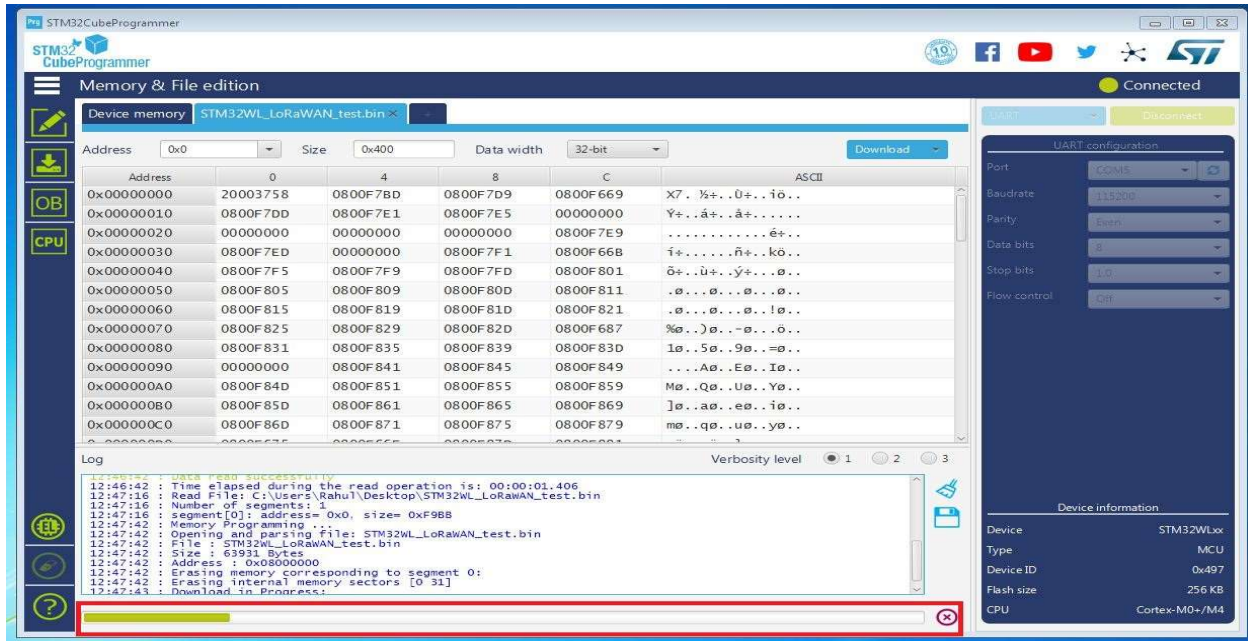
1> Select the COM port

2> Click to connect

3> Open file for selecting the binary file



4> Click on the download button to flash the selected binary file

5> Downloading in process…



6> Upgraded Successfully