Explore the next sense

Getting Started Guide Acconeer XM122-XB122 IoT Module Evaluation Kit

Oct 2019

Installation guide

The module should be flashed before first use to ensure that the latest SW is used. This installation quick guide will show you how to get the Acconeer XM122-XB122 Module Server up and running. For a hands-on instruction video, please visit Acconeer channel.
https://www.youtube.com/channel/UC56HMJfKPSpamS-kMHXOcAw

© 2019 by Acconeer – All rights reserved

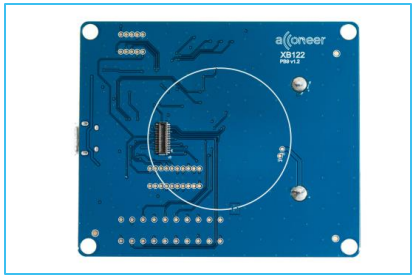
Preparing the HW Installation

To complete a successful installation of Acconeer EVK, the following HW components will be required:

XM 122 Module

+

XB 122 Breakout Board



Additionally*:

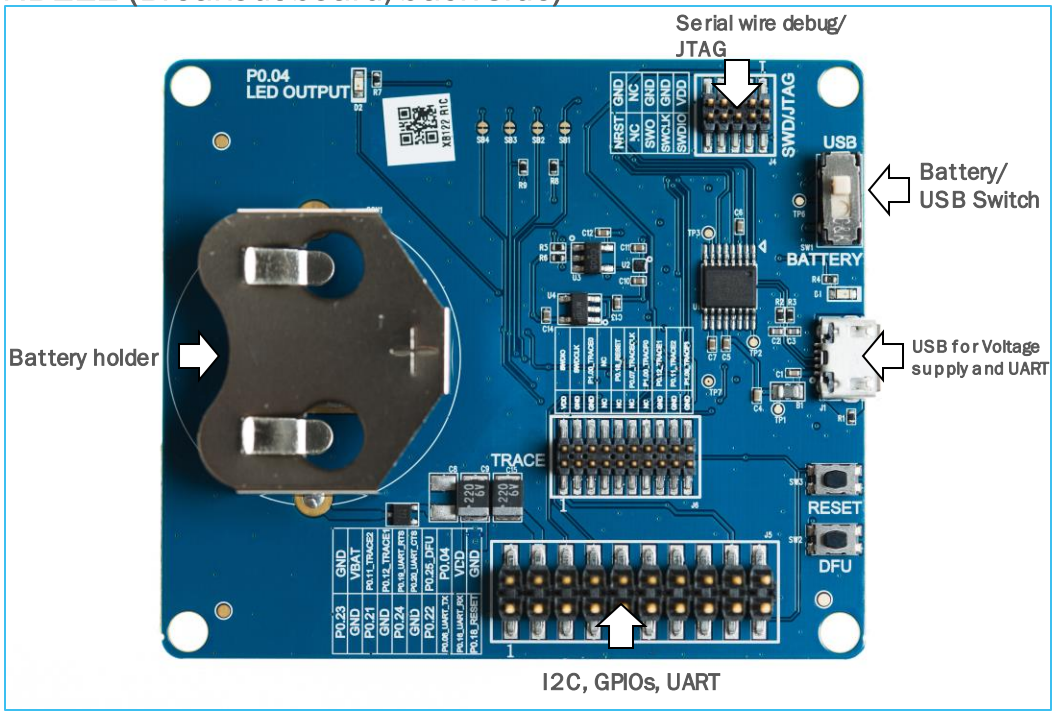
- USB Micro Cable for connection to PC

* Not provided by Acconeer.

© 2019 by Acconeer – All rights reserved

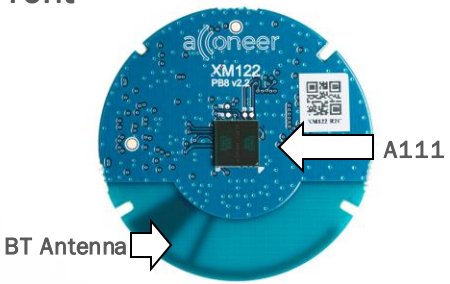
HW Overview

XB122 (Breakout board, back side)

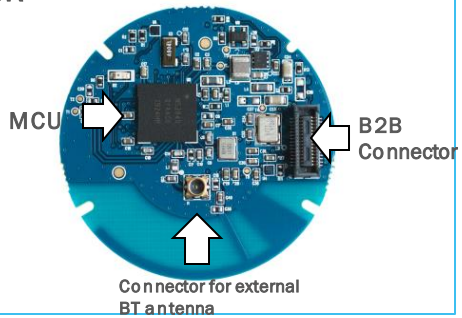


XM122

Front



Back



© 2019 by Acconeer – All rights reserved

Preparing the SW installation

The following applications will be required to complete an installation. Also, they will be very useful when working with the Radar Sensor Module Server. Please download and install:

- Acconeer Module SW Image for XM122: Available from https://developer.acconeer.com/
- Acconeer Exploration tool: https://github.com/acconeer/acconeer-python-exploration

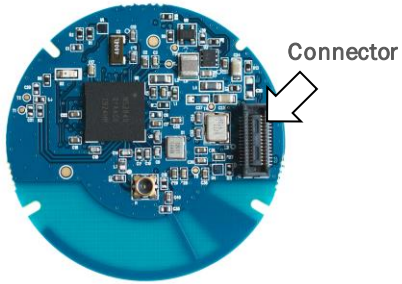
For all users (Windows, Linux):

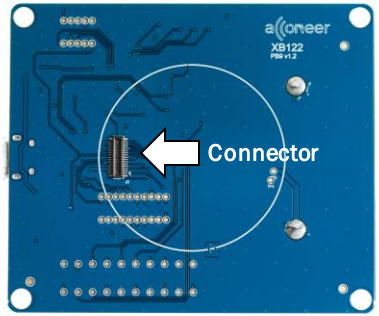
- Python: Available from https://python.org/downloads
- NRF Util from https://github.com/NordicSemiconductor/pc-nrfutil

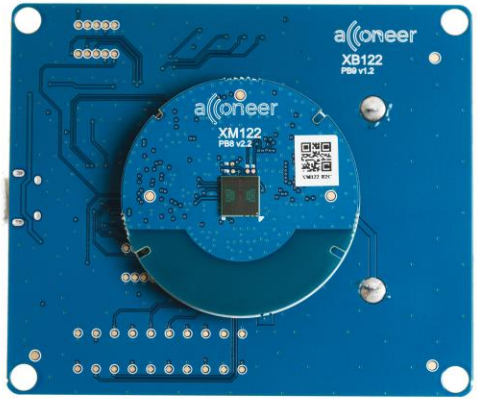
© 2019 by Acconeer – All rights reserved

Assemble the HW XM122/XB122

- Connect the XM122 Module to the XB122 Breakout Board.
- Connect the USB cable to USB slot.
- End result in the rightmost picture





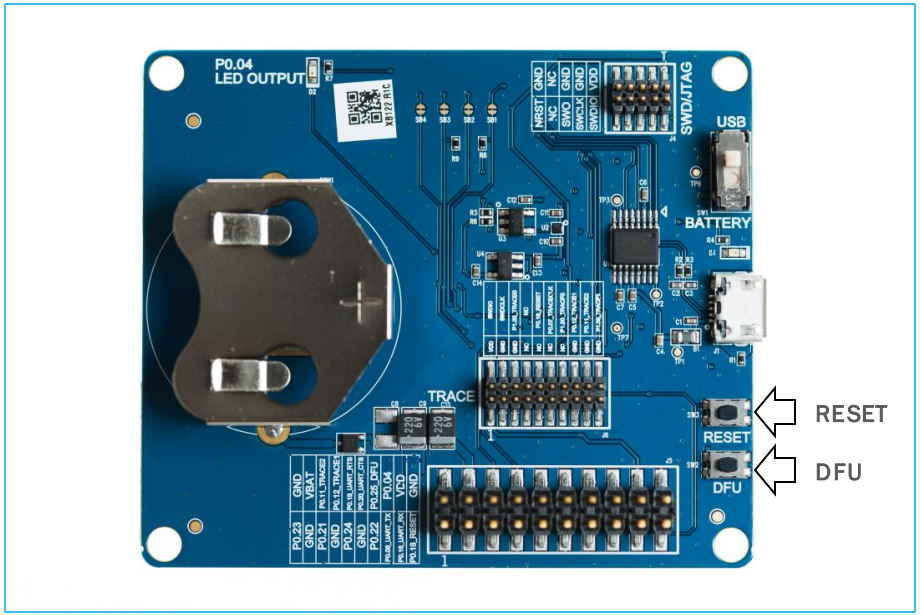


© 2019 by Acconeer – All rights reserved

Start Boot Mode (DFU Mode)

1. Press the DFU-button and hold it.
2. Press the RESET-button and hold it.
3. Release the RESET-button.
4. Release the DFU-button

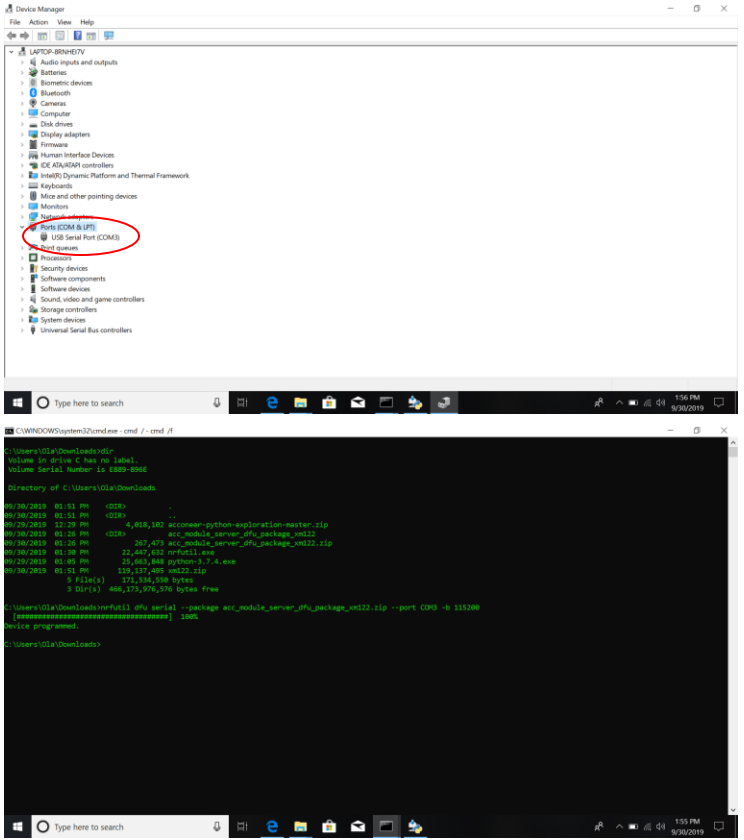
Now the module is in DFU mode and ready to be flashed.



© 2019 by Acconeer – All rights reserved

Flashing

1. Start Device Manager in Windows
2. Find the COM-Port that the XM122 is connected to. COM3 in our example.
3. In the command prompt directory where you placed NRF Util and XM122 IoT Module Server run the following command: *nrfutil dfu serial --package acc_module_server_dfu_package_xm122.zip --port COM3 -b 115200*
4. Make sure COM3 above is replaced with your COM port.
5. Now the XM122 is flashed and ready to use.

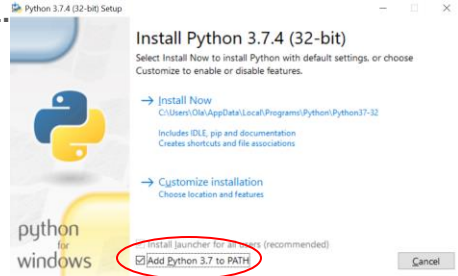


© 2019 by Acconeer – All rights reserved

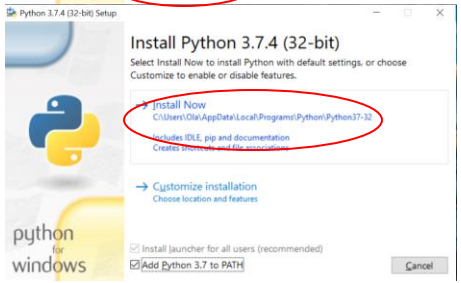
Installing python

- Start the installer file that you downloaded from python.
- Make sure the Add Python to PATH option is selected. (Pic 1)
- Click Install Now. No need for a customized Installation. (Pic 2)
- Close once the installation is completed. (Pic 3)

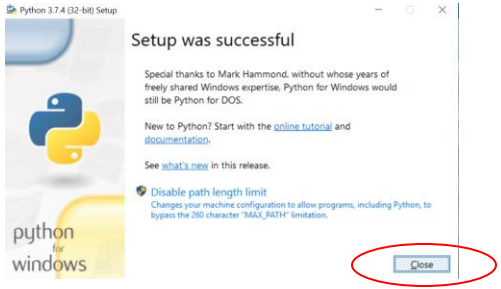
1.



2.



3.

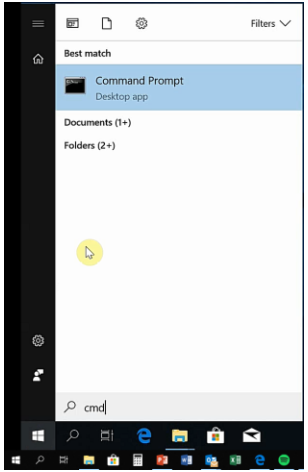


© 2019 by Acconeer – All rights reserved

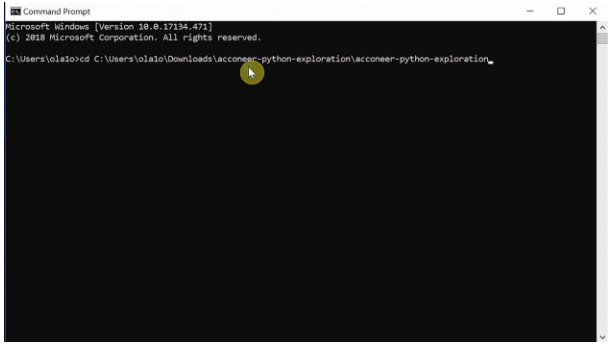
Installing Exploration tool

- Unzip the file downloaded from Acconeer. Acconeer-python-exploration
- Start windows command prompt. (Pic 1) You can always find it by searching for “cmd”.
- In the command prompt, change the directory to where you unzipped the exploration tool by typing the command *cd* followed by the path to the folder. (Pic 2)

1



2

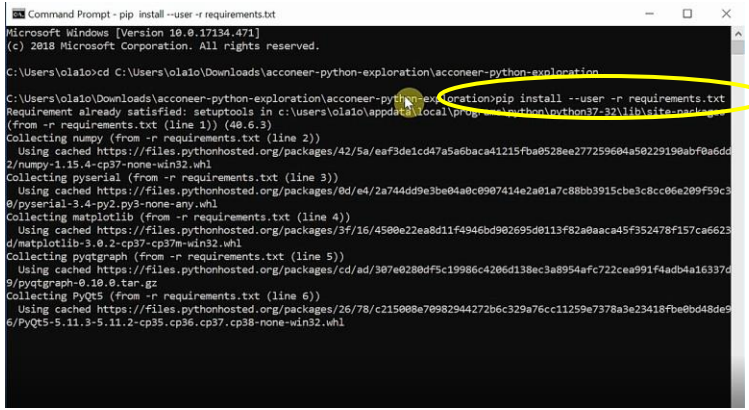


© 2019 by Acconeer – All rights reserved

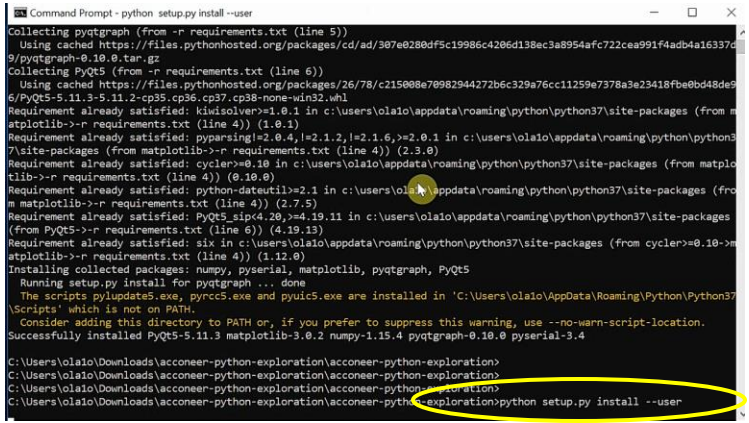
Installing Exploration tool

- Run the command: *pip install –user –r requirements.txt* (Pic 1)
- Wait until the installation has finished and run the next command: *python setup.py install –user* (Pic 2)

1



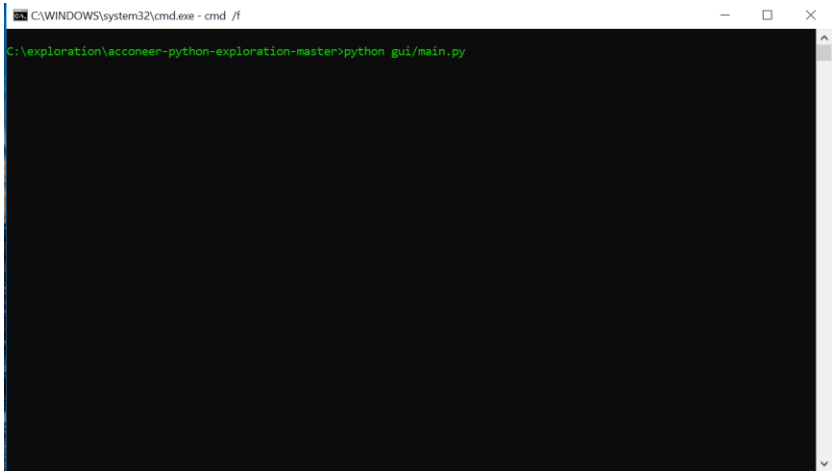
2



© 2019 by Acconeer – All rights reserved

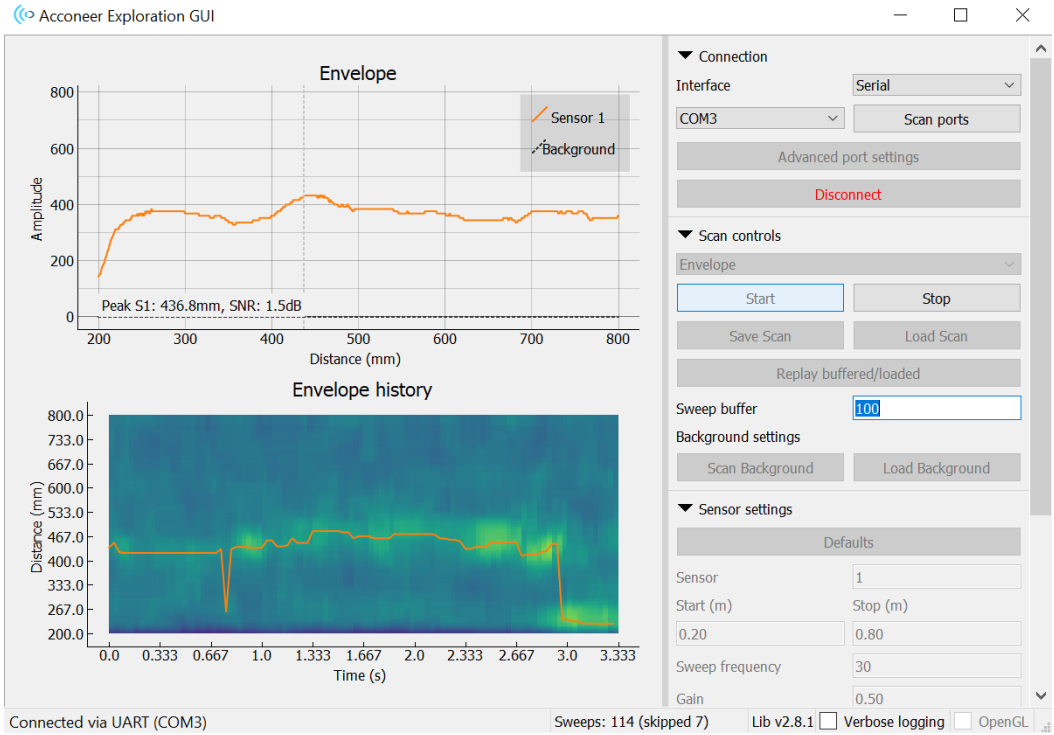
Run the exploration tool

- Run the following command in the command prompt: *python gui/main.py*
- Choose Serial as Interface in the dropdown.
- Click Connect
- Choose a service or a detector and click Start. (We used Envelope as an example)
- The result should be a graph showing the envelope data output from the sensor. Shown in next page.



© 2019 by Acconeer – All rights reserved

Exploration Tool GUI, Envelope graph



Connect/Disconnect

Select Service/Detector

Start

© 2019 by Acconeer – All rights reserved