Installation of firmware version 0.6
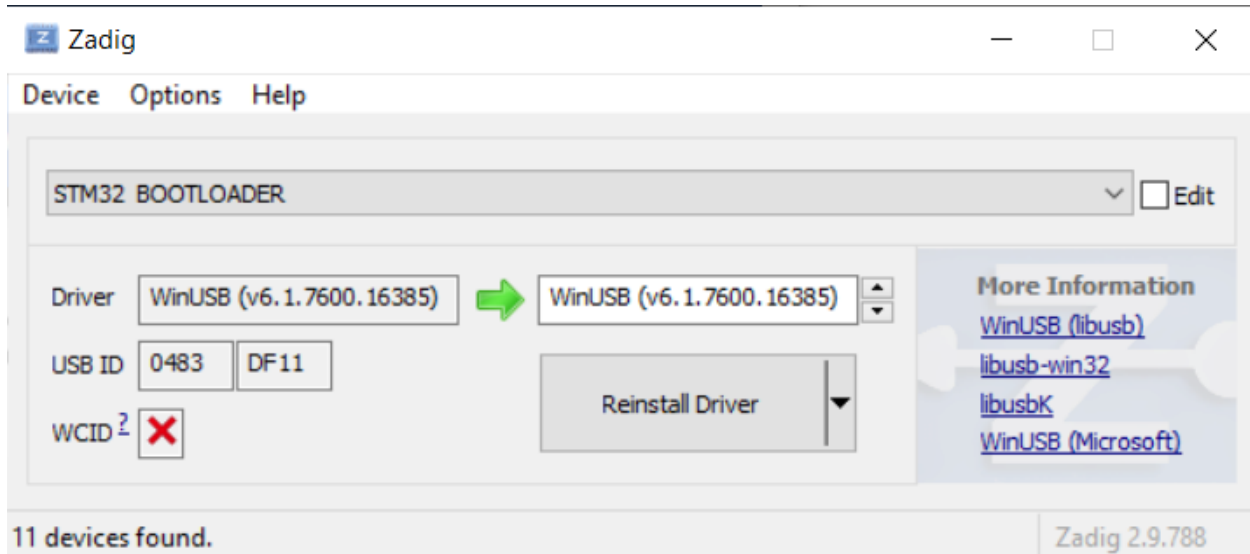
1. Download **Zadig** from the official website: https://zadig.akeo.ie/.

2. Enter the Booster into DFU mode:

Insert a pin into the **DFU Bootloader**, power cycle the Booster, and wait a few seconds before removing the pin.

3. In Zadig choose **STM32 BOOTLOADER** and install WinUSB by clicking **Install Driver.** Points 1. and 3. should be done only once per PC.

4. Open PowerShell.

5. Navigate to the directory named dfu-util containing dfu-util.exe and booster-release.bin files. Booster firmware files are available here: https://github.com/quartiq/booster/releases/tag/v0.6.0 .

6. Upload new firmware using this command:

> .\dfu-util.exe -a 0 -s 0x08000000:leave --download booster-release.bin
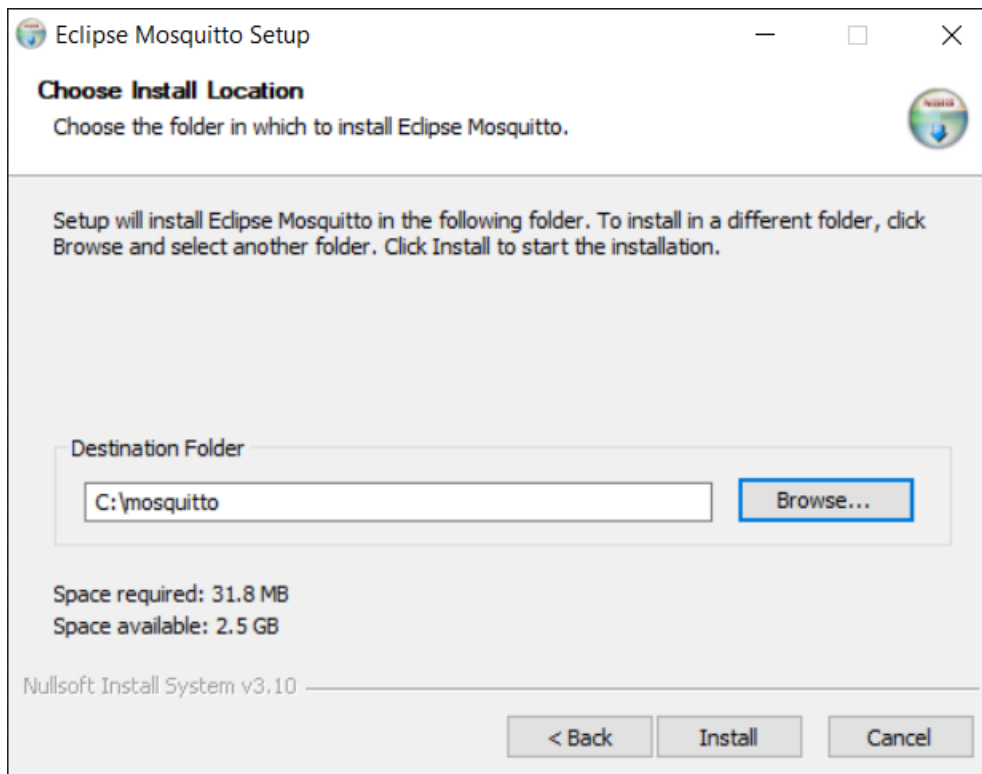
7. Wait until booster starts again.

8. After firmware installation on the first Booster, you can skip steps 1 and 3 on the same PC for any additional Boosters.

# Booster connection setup with mosquitto

1. Download **mosquitto** from: https://mosquitto.org/download/ .
2. Run downloaded .exe file to begin installation
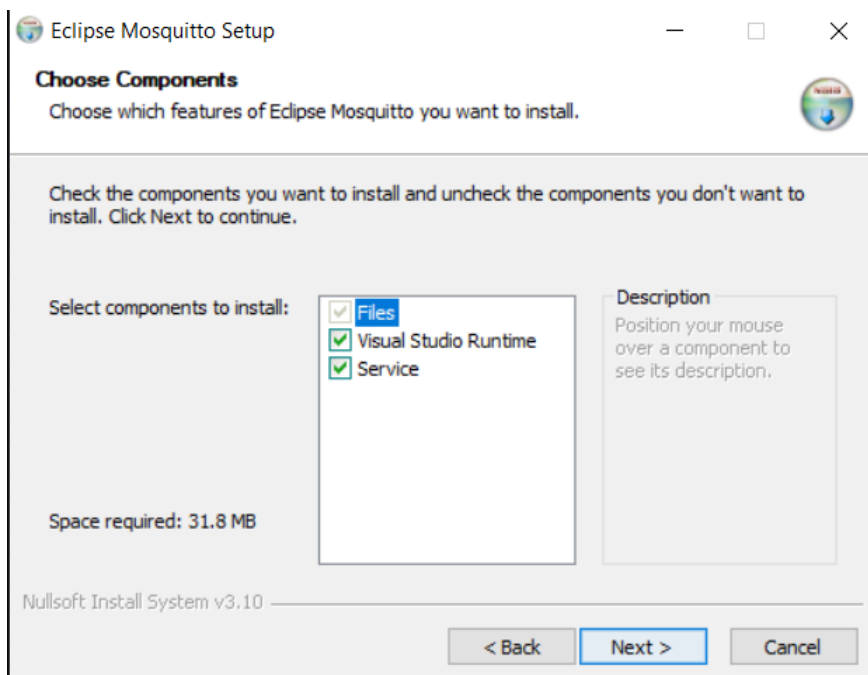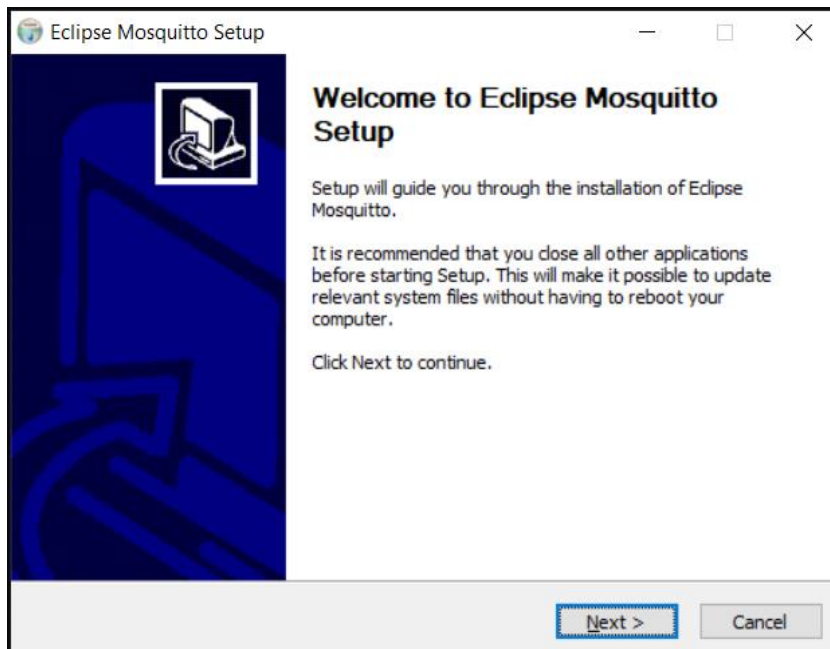
3. Important! Change destination folder to: "C:\moquitto"

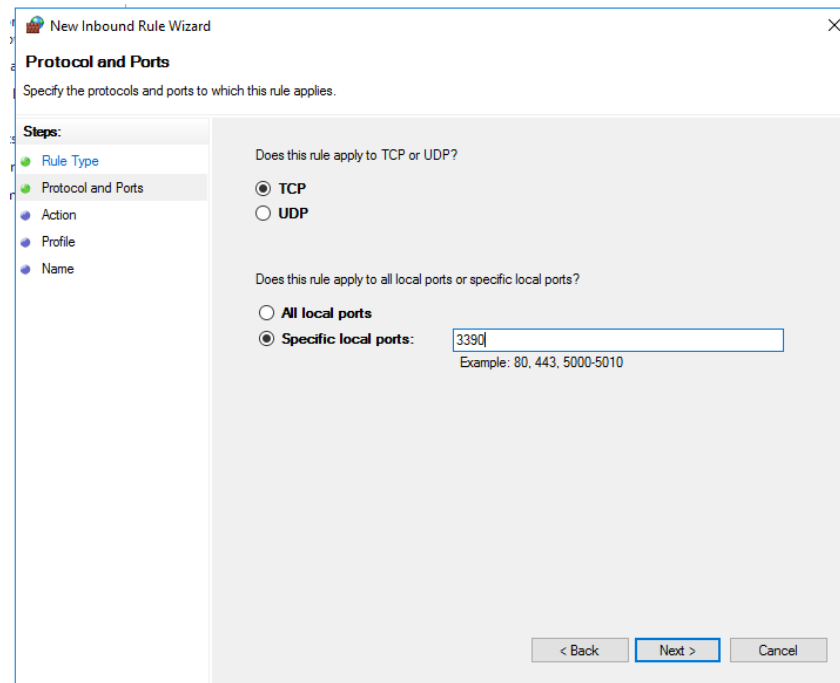4. To allow Mosquitto to receive MQTT connections, you need to add an **inbound firewall rule**:
    a. Open **Windows Firewall with Advanced Security** via the Start Menu
    b. In the left menu, click **"Advanced Settings".**
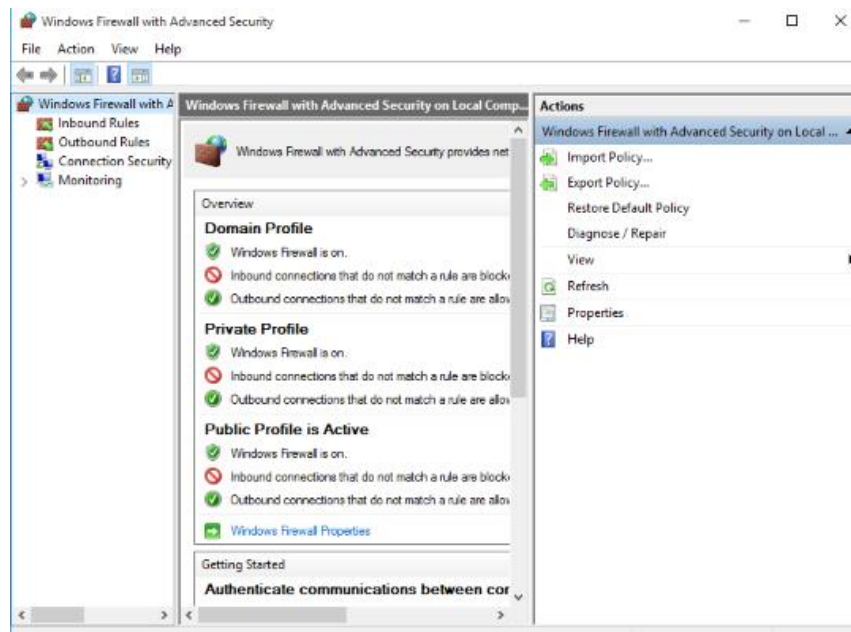
c. Go to **"Inbound Rules"** → click **"New Rule..."**

d. Choose **"Port"**, then click **Next**.
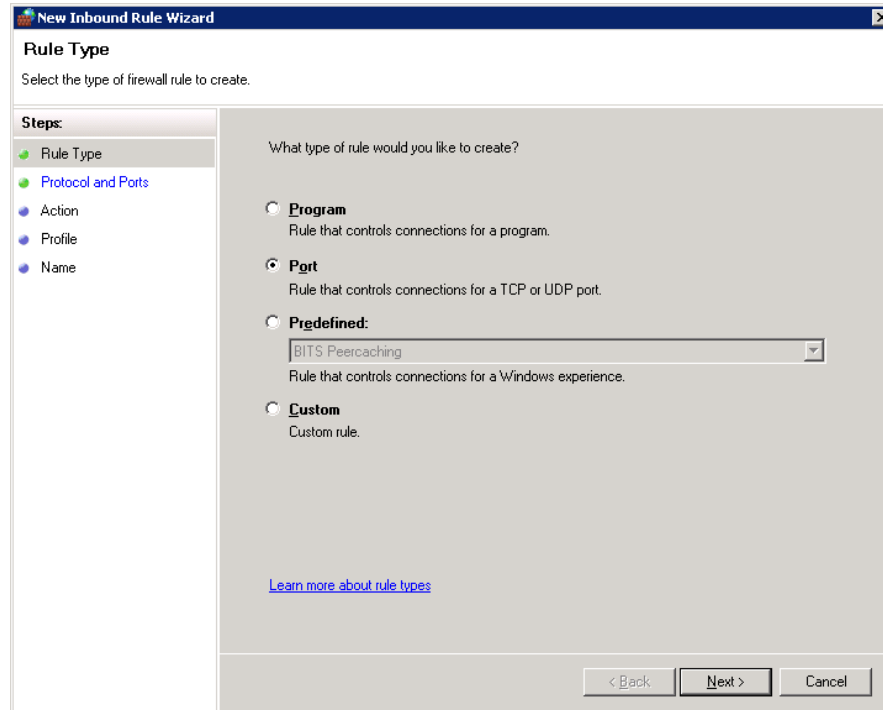
e. Select **"TCP"** and enter port number **1883**, then click **Next**.

  f. Select **"Allow the connection"**, then click **Next**.

  g. Choose **"Domain"** then click **Next**.

  h. Give rule a name e.g. **"MQTT Mosquitto 1883"** and click **Finish**.

5. Modify **mosquitto.conf** file that should be located in "C:\moquitto") by adding these 3 lines into it:

> listener 1883 0.0.0.0
>
> allow_anonymous true
>
> connection_messages true

These settings allow mosquitto to accept MQTT connections from any IP address on port 1883 and enable basic connection logging.

6. Enter PowerShell and run:

> *cd C:\mosquitto*

And then Start the broker with the configuration file in verbose mode:

> *.\mosquitto.exe -c "C:\mosquitto\mosquitto.conf" -v*

This will start the **mosquitto broker** service. The broker will listen on port 1883, and its IP address will match the IP address of your PC.

7. Connect to mosquitto broker with **mqtt-explorer**.

Application   Edit   View

MQTT Explorer   Search...   DISCONNECT ⌁

Topic   ⌃

Connections

mqtt broker
mqtt://your broker ip-address:1883/

test.mosquitto.org
mqtt://test.mosquitto.org:1883/

MQTT Connection   mqtt://your broker ip-address:1883/

Name

Validate certificate   Encryption (tls)

Protocol   Host   Port
mqtt://   your broker ip-address   1883

Username   Password

DELETE 🗑   ⚙ADVANCED   💾 SAVE   ⏻ CONNECT