

BLE firmware update

version 202502

Apps

nRF Connect f Mobile ⊮ Installed

Devices



Prepare:

Charge the device before updating and/or keep the USB-charge-cable connected. Activate at least 1 UWB anchor to prevent tags going into sleep mode. A mobile field anchor (FA02) needs to be upright, to remain active.

Step 1: nRF mobile phone app

use the mobile app nRF connect for iOS, android

Step 2: connect

connect to a device select from the list of devices shown in app

tagshave 'T' in the device name and use single core nRF52840 chipsetBoard type Tag 'T'with UWB network role Tag 'T'Board type Ball 'B'with UWB network role Tag 'T'Board type 'generic'role Tag 'T'AIRTLS

anchors have 'A' in the device name and use dual core nRF**53**40 chipset Board type Anchor 'A' with UWB network role Anchor 'A' AIRAA Board type Anchor 'F' with UWB network role Anchor 'A' AIRFA Board type HornAnchor 'H', UWB network role Anchor 'A' AIRHA Board type LineAnchor 'L' with UWB network role Anchor 'A' AIRLA Board type SolarPowered 'P', UWB network role Anchor 'A' AIRPA

The app shows the BT signal strength. In the example -51 dBm for the anchor and a weaker signal of -72dBm for the tag 'AIRTBT' (because of a larger distance). The phone can be 10+ meter away and still update the device. In case of packet loss the process takes longer. Use the '**connect**' button to connect.

Step 3: set the device in update mode Verify the application properties

(3 dots, right upper corner of the app) checkbox 'parse known characteristics' to be *un*checked



After connection click button 'dfu' (in the header)



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STOP SCANNING

Devices	DISCO	ONNECT 💮	
BONDED	ADVERTISER	AIRTLS D1:25:E2:68:A5:F4	×
CONNECTED NOT BONDED	CLIENT	SERVER	:
Generic Attribute UUID: 0x1801 PRIMARY SERVICE			

UUID: 0x1800 PRIMARY SERVICE

Nordic UART Service UUID: 6e400001-b5a3-f393-e0a9-e50e24dcca9e PRIMARY SERVICE

SMP Service UUID: 8d53dc1d-1db7-4cd3-868b-8a527460aa84 PRIMARY SERVICE



Step 4: select the file to update

Select file (.bin) from filesystem on the phone 11:27 🖸 🕅 🔹 🛄 🔞 🕅 👘 🖼 60% 🔒 Q : Downloads = Make sure the selected file is for the correct board Two chipsets are used: Downloads Single core and dual core controller chips Documents 🚫 Large files Audio nRF52840 single core used in tags '52' FILES IN DOWNLOADS **HH** nRF5340 dual core used in tags and anchors '53' 52_111.bin К Ж File names start with '52' or '53' × × 332 kB BIN file 10:45 **52** 111E.bin 53_111E.bin 53 111.bin к X К X 10:45 292 kB **BIN** file 111 refers to firmware version 1.1.1. tags have 'T' in the device name and use single core nRF52840 chipset

Board type Tag 'T' with UWB network role Tag 'T' AIRT Board type Ball 'B' with UWB network role Tag 'T' AIRBT anchors have 'A' in the device name and use dual core nRF5340 chipset Board type Anchor 'A' with UWB network role Anchor 'A' AIRAA Board type HornAnchor 'H' with UWB network role Anchor 'A' AIRHA Board type WallSocket mount 'L' with UWB network role Anchor 'A' AIRLA

Step 5: wireless transfer of the file and test

Select update mode 'Test and Confirm'



The transfer likely takes about 10+ sec





Step 6: Validating

Select again 'dfu'



Select the mode **`Confirm only**' to validate the file.





After 'validating' the file on the board, in about 10 seconds, the board will restart automatically.

For tags with a display, the firmware version can be found in the lower left corner



Note: When a (USB) charge cable is connected to a device The board will perform a hardware reset upon connection.