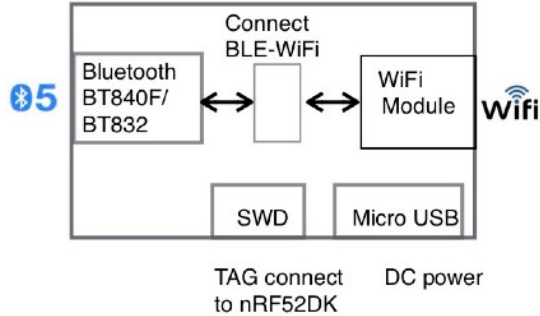


Bluetooth to WiFi Gateway

Gateway consists of 2 major components.

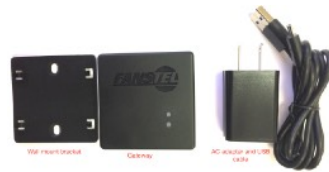
- A WiFi module, ESP8266 in BWG832F/X or ESP32 in BWG840F/X. WiFi module establishes and maintain



- connection with cloud server via a WiFi router.
- A Bluetooth 5 module - BT832F/X and BT840F/X for BWG832F/X and BWG840F/X, respectively.

Parts included in the package:

- A gateway
- A wall mount bracket
- An AC adapter, an USB cable



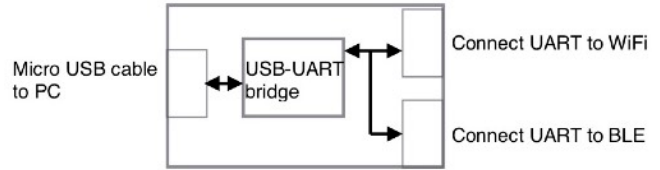
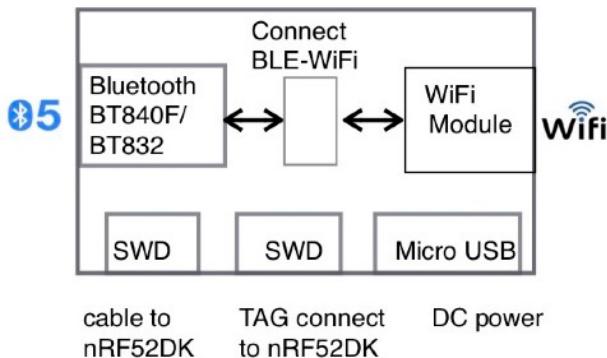
Your first development gateway must be a DK (Development Kit).

To load firmware into WiFi module for connecting to a cloud server, the USB cable assembly included in DK is required.

Development Kit

A DK consists of:

- A gateway with magnetic mount
- A wall mount bracket
- An AC adapter, an USB cable
- An USB cable assembly for connecting USB port to WiFi or Bluetooth module



- A 10-pin cable for connecting to Nordic nRF52DK or nRF52840DK.

WiFi Firmware Development

Mongoose OS is used. To install Mongoose tools in your PC, follow instructions in this link.

<https://mongoose-os.com/docs/quickstart/setup.html>

Fanstel Document, Hex and Source Codes

Please download schematics, firmware, Android OS apk, app source codes, and data sheets/developer's manual from:

<http://www.fanstel.com/download-opensource/>

Nordic nRF52 Development

Nordic nRF52 relays messages between cloud server and other nodes in Bluetooth mesh. An **nRF52DK** or an **nRF52840DK** and a **TAG connect cable TC2050-IDC-NL-050-ALL** are required to change boot-loader. If boot-loader is loaded, **Over-The-Air DFU** can be used to update application software and SoftDevice.

Nordic SDK with example projects.

https://developer.nordicsemi.com/nRF5_SDK/

Nordic DevZone, Q&A, Blog.

<https://devzone.nordicsemi.com/tutorials/b/getting-started/posts/development-with-gcc-and-eclipse>

Download and install nRF5x-Command-Line Tools

<https://www.nordicsemi.com/Software-and-Tools/Development-Tools/nRF-Command-Line-Tools/Download#infotabs>

nRF Connect: PC application for configuring and evaluating Nordic SoCs.

<https://www.nordicsemi.com/Software-and-Tools/Development-Tools/nRF-Connect-for-desktop>

Segger tools:

<https://www.segger.com/downloads/jlink/#J-LinkSoftwareAndDocumentationPack>