

## Preface

*This document provides general user instructions regarding the connection and use of TapNLink Primer evaluation kits.*

*Users of TapNLink standard wireless modules should start development of their implementation and apps using a TapNLink Primer evaluation kit. The Primers support access to the full range of configuration and app generation tools described in this document. The configurations created using a Primer can then be transferred to TapNLink standard wireless modules.*

*For specifics about TapNLink standard module wireless implementations, refer to the product datasheets. You'll find them online: <http://docs.iotize.com/Datasheets/>*

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## Quick Start Card

When starting their evaluation, users should first follow the Quick Start instruction card, which details the first steps in using any Primer product. This includes running the sample application and connecting the Primer's TapNLink wireless module to the target application board.

## Contents

- TapNLink Primer module
- STM32 board

## Also Requires

An Android mobile or an iPhone with Wi-Fi or Bluetooth, NFC (optional), and data connections enabled.

Requires Android v4.0.3 or later version, of iOS 10 or later version.

## Connect & Power Up

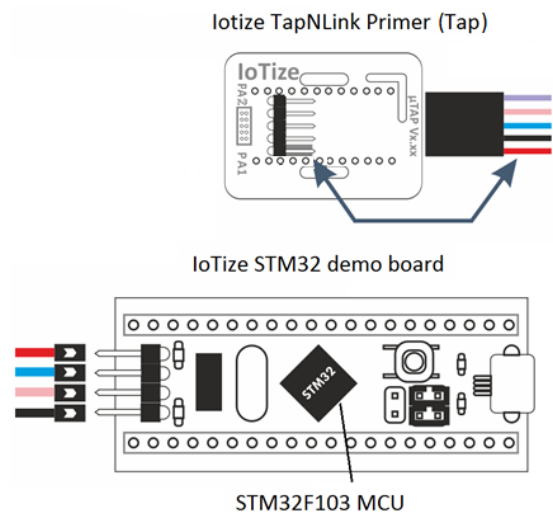
1. Connect Primer to the Application board.
2. Connect the application board's USB to a PC for power supply.

## Install & Connect Manually

3. Install the IoTize Sensor Demo app from Play Store or App Store.
4. Select your Primer from the available Wi-Fi connections on your mobile.

## OR Auto-Connect Using NFC\*

3. Approach the mobile to the Primer. It automatically connects via Wi-Fi and launches installation of Sensor Demo.



\* Support by Android mobiles with NFC and by iPhone XS and later models using iOS13 or later versions.

## Sensor Demo

The Sensor Demo app displays data from the microcontroller on the sample application board.

For this sample, an **IoTize Studio** configuration project shows you the fundamentals of configuring your Primer. With IoTize Studio, you can reconfigure Primer for other microcontroller application boards and create your own apps for Android and iOS.

Learn more about creating mobile apps with IoTize Studio, go to: <http://www.wireless-primer.com>

## Create a Web app / APK app

In this section we use IoTize Studio to modify the demo app and:

- Publish Web app HTML pages (5 mins).
- Generate an APK app (15 mins).

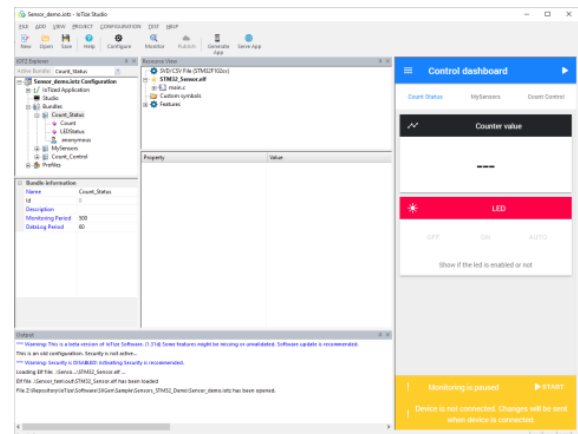
We assume you followed the quick start on the packaging and [observed how the behavior of the app changes](#).

*Note: If you have an NFC-BLE Primer (ref: TnL-PRIMER-NB), [see here](#).*

## Publish a Web app using IoTize Studio

Required resources: TapNLink Primer Kit, 5V micro USB power cable, Android/iOS smartphone, and a Windows PC with IoTize Studio installed ([download](#)). Java machine users should apply the most recent [firmware update](#).

1. Launch IoTize Studio, the Sensor demo project opens as shown in this screen capture.
2. Connect IoTize Studio to your TapNLink [using the PCs Wi-Fi connection](#).
3. [Customize the app](#) in IoTize Studio.
4. Save your project in a directory where you have full read/write access (the Sensor demo is in the Program files directory).
5. Setup IoTize Studio to [create a Web app](#).
6. [Click on Configure](#) and Test | Reboot your Tap.
7. [Observe your Web app](#) from the Web view in IoTize Studio.
8. [Publish, then test](#) the Web app from your phone.



[How to to build a Web App / APK mobile](#) app gives a more detailed explanation.

## Generate your own APK app using IoTize Studio

In this section we create an APK app, generate it as a new app, and save it on your Tap.

1. [Create an APK app \(using the App Generator\)](#), then click on Generate App.
2. [Click on Configure](#), then Test | Reboot Tap.
3. [Click on Monitor](#) to verify your configuration.

Refer to [general concepts](#) and [user manuals](#) for further details.

## Factory reset

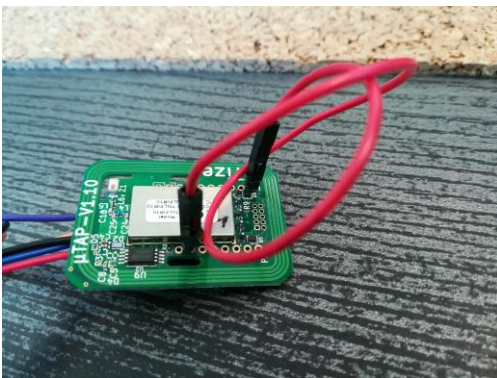
If you lose the administrator password, you can no longer change your Tap's configuration.

In this case, you must erase the current configuration and recover the factory configuration using the hardware factory reset procedure, presented here.

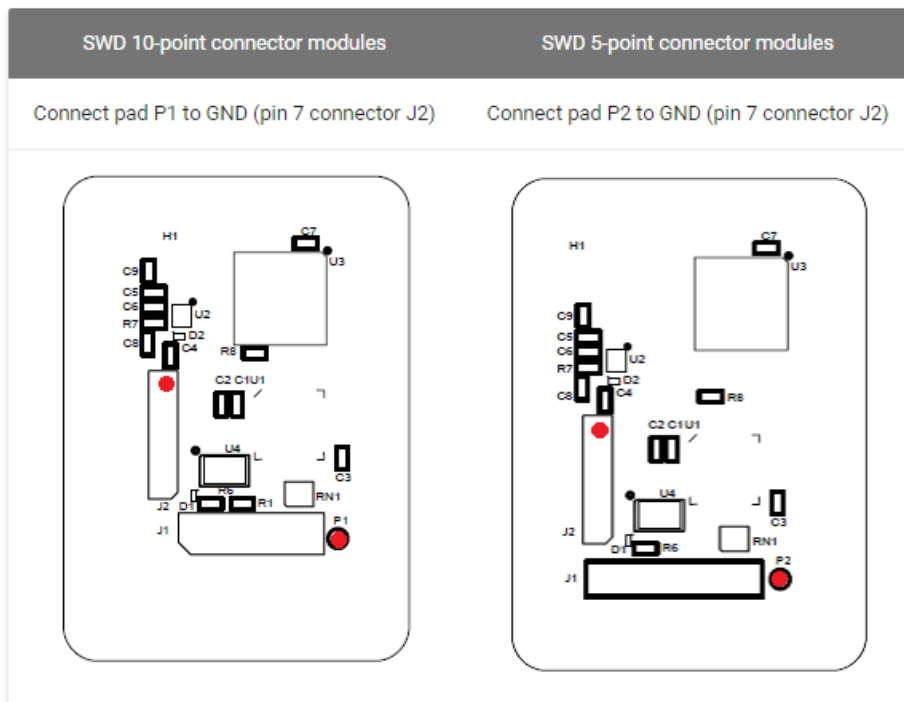
This feature can be disabled in IoTize Studio from menu IoTized Application\Tap\Configuration Access control\By hardware signal but it is strongly advised to keep the default value 'Yes' (otherwise reconfiguration won't be possible).

### Hardware factory reset

The PA7 pad on the PCB of your Tap must be linked to ground during power-on to perform a factory reset:



1. Power off the module.
2. Connect the HW\_FR signal (P1A.7) to the ground (P1B.1) and keep them connected.
3. Power on the module.
4. Wait for 10 seconds.
5. Power off the module.
6. Disconnect the HW\_FR.
7. Power on the module again: the default configuration is reloaded.



### Studio factory reset

If you can connect to the Tap, you can do a factory reset from IoTize Studio: Configuration -> Clear (Factory Reset).

### After factory reset

The factory reset values are:

**WiFi password:** ABCD1234

**WiFi network:** TAP\_

**IP number:** 192.168.4.1

**Service name/Port:** 2000

**Network mode:** Access Point

**SSID:** TAP

**Studio | Configuration version:** 0.0.0. This must be 0.0.1 or higher.

A factory reset removes the Sensor demo.

If you want to use your current project to reconfigure the Tap, check these options before you Test Connection, Configure, then Test | Reboot Tap.

- Studio: Connection to Tap -> Socket host name/IP = 192.168.4.1
- Reconnect to the Taps WiFi network.
- App AAR to access the Sensor demo: com.iotize.app.sensordemo (the default app is Tap manager com.iotize.android.communicationapp).

## Product Support Resources

The latest complete information documentation are provided online at the IoTize Documentation Center:

- Software Downloads: <http://docs.iotize.com/Downloads/>
- TapNLink Datasheets: <http://docs.iotize.com/Datasheets/>
- TapNLink User Manual: <http://docs.iotize.com/UserManuals/TapNLink/>
- TapNLink Primer Getting Started: <http://docs.iotize.com/GettingStarted/>

For direct assistance from IoTize software and hardware engineering teams, please contact your reseller or email us at [support@iotize.com](mailto:support@iotize.com)

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