



## **TOPFLYtech T-button**

User Manual

20230803

Thanks for your purchasing of the high-quality IoT sensor from TOPFLYtech. Please read this user manual carefully before installation and operation. Information in this manual is the property of TOPFLYtech. Changes to the specifications and features in this manual may be made by TOPFLYtech without prior notice. No part of this manual could be reproduced, copied, translated, transmitted, or published in any form or by any means without TOPFLYtech's prior written permission.



The sensor is using BLE 5.1 technology and could detect door status and environment temperature, then send them to the tracker/Phone via BLE. It provides the customer with a cost-effective, efficient, and safe environment remote monitoring method.

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## 1. Quick Reference



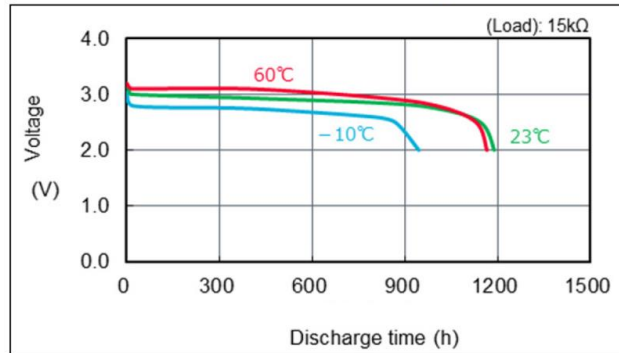
## 2. Product Specifications

General Specifications	
Model Name	T-button
Ingress Protection Rating	IP41
Dimensions	58mm*34.3mm*9.9mm (2.28" *1.35" *0.38")
Weight	13.2g (0.47oz, Battery Included)
Battery	Replaceable CR2032 220mAh
Battery Life	Only use TFT Eddystone as driver ID (default enable) 600 days @ press 50 times driver ID button & Tx= 0 dBm (default) & temperature = 25°C 550 days @ press 50 times driver ID button & Tx= 4 dBm & temperature = 25°C
	Only use TFT beacon (default disable) 550 days @ interval: 10s & Tx= 0 dBm(default) & temperature = 25°C) 500 days @ interval: 10s & Tx= 4 dBm & temperature = 25°C
	*Refer to the battery life curves for more information * If enable TFT Eddystone and TFT Beacon, working time will be half comparing to single mode
Operating Temperature	-30°C ~ +70°C (-22°F ~ 158°F)
Power Output	Default 0 dBm (can be configured to 4 dBm)
Transmission Range (BLE 5.1)	Up to 90m (290 fts) (Open Field, Power: 0 dBm (default) , BLE5.1) Up to 200m (650 fts) (Open Field, Power: 4 dBm, BLE5.1)
Transmission Range (BLE5.1 Long Range)	Up to 240m (780 fts) (Open Field, Power: 0 dBm, BLE5.1 Long Range, need receiver support BLE Long Range) Up to 490m (1600 fts) (Open Field, Power: 4 dBm, BLE5.1 Long Range, need receiver support BLE Long Range)
Protocols compatibility	
TFT Eddystone	Yes (default)

Eddystone UID	Yes
TFT Beacon	Yes
Others	Built-in Temperature Sensor ( $\pm 2^{\circ}\text{C}$ )

### 2.1 Battery Discharge Characteristics by Temperature Charts

#### Discharge Characteristics on Temperature Test Condition: constant discharge



### 3. Start to use

#### 3.1 How to power on

3.1.1 Press any button of the sensor.

#### 3.2 How to power off

3.2.1 Press 2 buttons same time and hold more than 1 second.

#### 3.3 How to read the sensor information through cellphone

3.3.1 Install the app called "TFTBLE" from Google Play or Apple app store.

3.3.2 Turn on the cellphone Bluetooth.

3.3.3 Run "TFTBLE" app and allow all the permissions it needs.

3.3.4 Power on T-button by following the steps in 3.1

3.3.5 Find the device model which named as "T-button".

3.3.6 The T-button ID will be shown in the app. It also can be got by scanning the QR code on product label.

#### 3.4 LED light indication



#### 3.4.1 Driver ID

Press the Driver ID button once, a flashlight appears for 20ms on, 380ms off.  
If device receives ACK from tracker, a solid yellow light appears for 1.5s.  
If no ACK is received from tracker, flashlight continues for a maximum of 4s then goes off.

#### 3.4.2 SOS (Panic) Button

Press the SOS button once, a flashlight appears for 20ms on, 380ms off.  
If device receives ACK from tracker, Solid red light appears for 1.5s right away.  
If no ACK is received from tracker, flashlight continues for a maximum of 4s the goes off.

#### 3.4.3 Notes:

When battery drops below 10%, a solid red light appears for 20ms every 10s.  
Click both Driver ID button and SOS button at the same time for 1s for T-Button to enter sleep mode. (It will wake up when you click either button).

### 3.5 How to upgrade the sensor firmware

3.5.1 Click "Config" button.

3.5.2 If there is a new version firmware, the app will give a popup notice.

3.5.3 Tap "Confirm" to upgrade the firmware.

3.5.4 Waiting for a while. In the process of updating, please keep the cellphone close to the sensor.

### 3.6 How to configure the sensor by cellphone

3.6.1 Run TFTPBLE app and click the "Config" button.

3.6.2 Input the password. The default password is 654321.

3.6.3 Then you can change any configuration.

### 3.7 How to connect the sensor to a TOPFLYtech tracker

3.7.1 Please reference TOPFLYtech command list.

### 3.8 How to change internal battery



### 3.9 Connect the sensor to another 3<sup>rd</sup> party device

Please contact with TOPFLYtech if you want to use this sensor with a 3<sup>rd</sup> party BLE device

## 4. Other Settings

4.1 The default broadcasting cycle is every 10s.

4.2 The broadcasting cycle is adjustable, range 5 ~ 30s.

4.3 When door status changes (open to close, close to open), it will broadcast immediately.

## 5. Quick Trouble Shooting

5.1 TFTBLE APP shows "Loading" all the time

5.1.1 Terminate the app.

5.1.2 Check the cellphone Bluetooth status and make sure it is on.

5.1.3 Make sure all the permissions of the APP are given to app. You can enter <Settings>-<Permissions> to manage it.

5.1.4 Put the sensor close to the cellphone then run TFTBLE APP again.

## 6. Setting Parameter Description

Parameter	Description
Password	Default Password Is 654321. It can be changed to any other 6 digits password.
Broadcast Cycle	The sensor information broadcasting cycle.
LED	Sensor LED light on/off
Reset Factory	Reset all settings in the sensor