



# Setup & Installation

## Table of Contents

1.	2
2.	2
3.	2
	11
	12
	13



## 1. Introduction

The following file contains information about setting up and running the single temperature dobona board called DoboT. The DoboT is a small Wi-Fi enabled board that could be placed near a fridge or refrigerator to read its temperature and send it over the internet to a server. A user downloaded application from either Apple store or Google play can remotely read this temperature online. Furthermore, the DoboT can have a limit setup that when exceeded will send an alarm email to the user to alert him of an abnormal temperature level. Typical usage for the DoboT board could be for temperature monitoring of supermarkets, restaurants and laboratories fridges and refrigerators where an out of tolerance temperature could have harmful effects on the product safety. Users alerted at an earlier temperature fluctuation time can swiftly take proper measures to ensure that safety has not been compromised. DoboT typically fits in a domestic distribution electrical panel. The DoboT should be powered by a regulated 12V/500mA supply (not provided). The exact terminal connections are drawn on the DoboT enclosure fascia.

## 2. Prerequisites

To install DoboT, the user must:

- Have basic information about installing electrical components, otherwise call an electrician to do the required wiring
- Own a DoboT board
- Have a Wi-Fi internet connection
- Download the “dobona” application from the Play Store (Android) or the Apple Store (iOS)

## 3. How to setup the board?

1. User installs DoboT at a location close to the refrigerator/fridge (but not inside it). The sensor is supplied with a 2-meter long cable and has to be put inside the refrigerator/fridge. DoboT has to be covered by the Wi-Fi internet router. A certified electrician must be called in to do the electrical branching.
2. User downloads dobona app to his android or apple phone/tablet.
3. User makes sure that the jumper on his board is plugged in before powering up the DoboT for the first time. user should make sure he has a constant internet connection during all of the setup session.
4. User launches dobona app. the first screen that appears is the live\_log screen with scrollable fifty lines, each for setting up a separate board. the red font with the downward thumb shows that no board has been setup so far (Fig.1).



Fig 1.

5. Since no board has been setup yet, the user should press on the setup button on the bottom of the screen to move to the setup page, which looks similar the live\_log page but with a beige background (Fig.2).

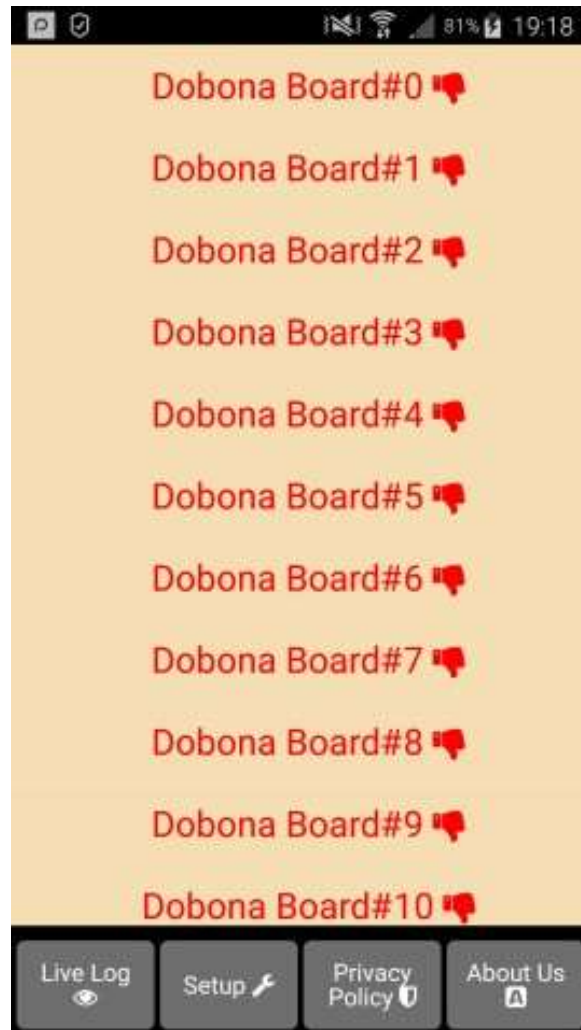


Fig 2.

6. In order to setup a board, the should press any of the red lines. Supposing he presses on the first line (Dobona board#1), after which he is presented with a popup screen to choose the board type (Fig.3). since we are interested in DoboT board only, the user should press the DoboT (temperature).

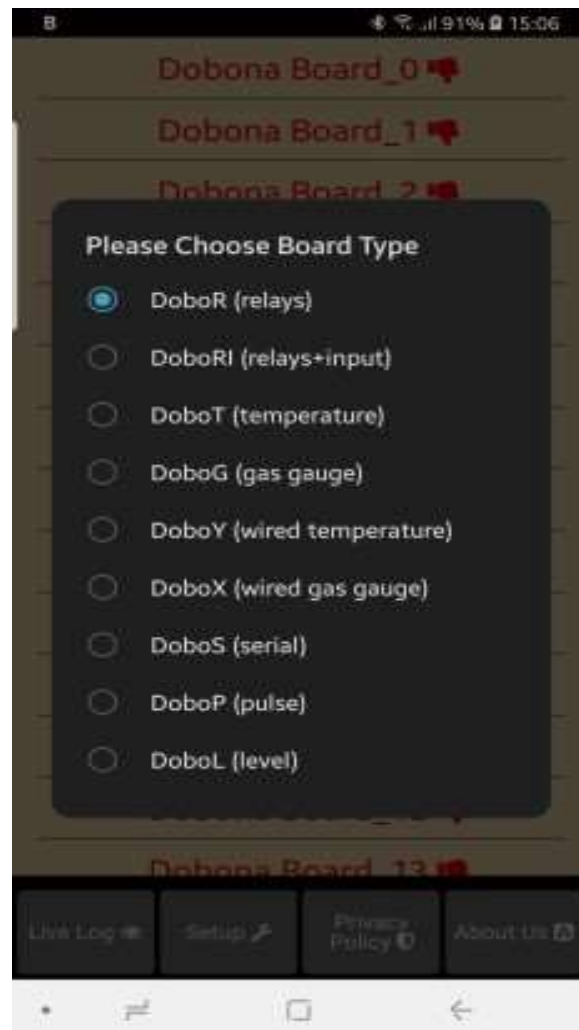


Fig 3.

7. User is then presented with the next screen where he is prompted to enter a name for the dobona board he chose (Fig.4). Supposing he writes "water\_tank" as name and makes sure the phone/tablet has an internet connection, and presses on the next button, he is taken to a new screen to register the board on the server (Fig.5).

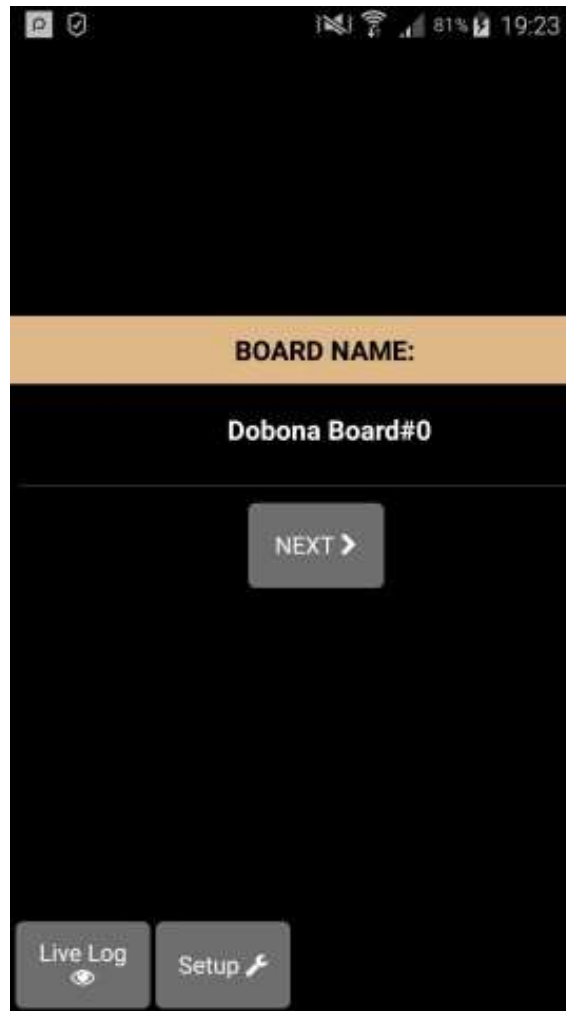


Fig 4.

8. User must enter the ssid and password of the internet enabled Wi-Fi network where the DoboT will be installed. The reg.key is automatically generated by the server. If the user wants to receive an email notification whenever a temperature level is exceeded, he should tick the “register phone for email notification”. A field to enter the email will appear on the screen where the user can enter his email. The alarm field must also be filled with the temperature limit, even if not used. If the DoboT is used for refrigeration/freezing, then the option “email if above” should be ticked; if the DoboT is used for heating applications where the temperature ought not drop below a certain limit then the “email if above” option should be left empty. The option °F should be ticked only if the user wishes to read the temperature in degrees Fahrenheit instead of degrees Celsius. After completion, the user presses on the save and register on server button to send the entered data to the server and move to the



next screen. If the DoboT board has already been setup from a previous phone/tablet and the user wants to enable his phone to control it, he should press on the pen thumbnail to enter the previously setup DoboT reg.key before pressing on the save and register on server button. If the reg.key, ssid and password are correct, then he will be directed to the live\_log screen to read the temperature (in this case go directly to step 10).

The screenshot shows a mobile application interface for DoboT setup. At the top, there is a status bar with a lock icon, signal strength, Wi-Fi, 84% battery, and the time 16:50. Below the status bar, the following fields and options are visible:

- SSID:** A text input field with the placeholder text "enter SSID name here".
- Password:** A text input field with the placeholder text "enter PASSWORD here".
- Reg.Key:** A text input field containing the value "binr6pxc0i8d". To its right is a square icon with a pen nib, used for editing the key.
- Register Phone for Email Notifications**
- \*F (untick if °C)**
- email if above (untick if below)**
- alarm:** A text input field with the placeholder text "enter alarm value here".

At the bottom of the form is a large grey button labeled "SAVE AND REGISTER ON SERVER". Below this button is a navigation bar with two buttons: "Live Log" (with an eye icon) and "Setup" (with a wrench icon).

Fig 5.

9. On the next page (Fig.6) the user has to switch the phone/tablet Wi-Fi connection to the "Dobona\_xxxx" network that should appear on the list of available Wi-Fi networks. That network requires no password He can tick the high speed communication for the fastest communication between DoboT and the server, the enable power up notification for receiving an email after each DoboT powering up.



Pressing the send info to dobona will send the entered data to the DoboT. If the connection was successful then the “dobona” network should disappear from the list of available networks on the phone/tablet and the live log screen (Fig.7) is shown. Please check section “4. How to run the board” in order to run the DoboT. If a successful connection between DoboT and server is established then pressing on the live log button on the button will take the user to the live log screen (Fig.7). He will notice that the Dobona board#1 is now replaced with water\_tank with green font and thumbs up to indicate that the board has been setup.

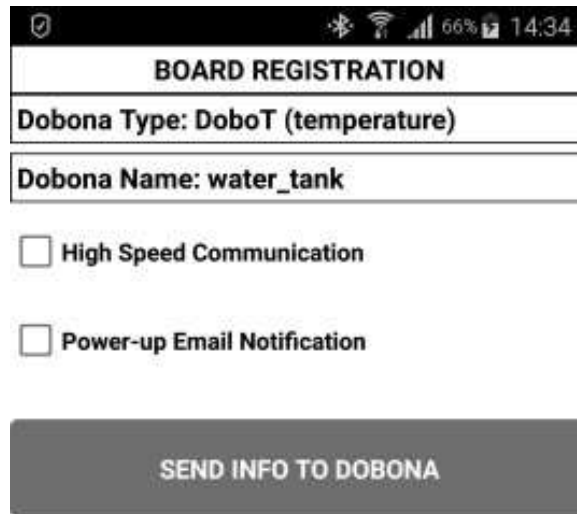


Fig 6.





Fig 7.

10. Now pressing on the water\_tank line will display the live log screen related to the DoboT board that has been setup (Fig.8). The temperature is displayed on the screen together with the last time the DoboT board checked with the server. This information is important for the user to know if the DoboT and its internet connection are working. If for instance the screen displays an unusually long time, it could be an indication that the DoboT or its internet connection or router are facing issues.



Fig 8.

11. Notice the “HISTORY” button on the screen upper right corner. Pressing it will launch the default browser and display the board history chart for the past 31 days on an hourly basis (Fig.9). A red star on in the graph denotes a period of power or internet interruption with the number of interrupted hours above it also in red. The user can also change the above or below alarm and the alarm threshold level that were entered during setup. Please note that if the browser does not launch on some devices, then the user should enable JavaScript from the browser settings before loading the page again. The user can also download the chart data points as a .CSV file to his device by pressing the “Download” button. Note that if the chart contains red stars with numbers above them, they denote the number of hours the board did not communicate with the server. This could have been caused by internet going



down or power cut to the board... They are also saved in the third column of the CSV file. The user is urged to select the geographical location of the board and to save it to the server by pressing the “Save” button. This is important for the server to save the Date/Time chart data according to the board local Timezone.

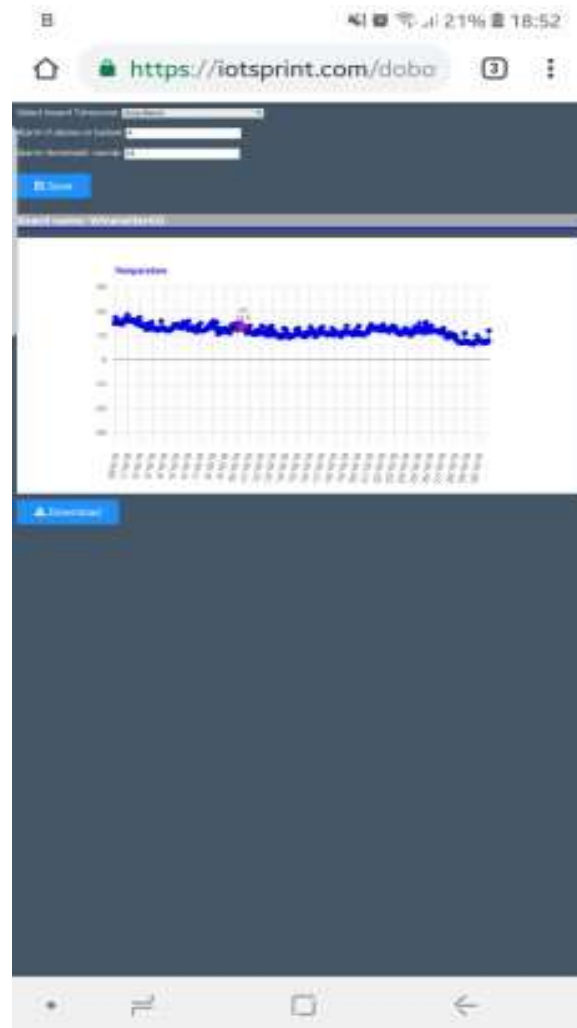


Fig 9.

#### 4. How to run the board?

After successful setup, the user must:

- Power down the DoboT by removing the 12V supply
- Remove the jumper on the DoboT board
- House the DoboT back in its enclosure
- Place the enclosure in its final panel destination

Power up the DoboT. The DoboT will now seek the user-entered router SSID and password to connect to the internet and send updates to the remote server. It should be noted that poor internet service or weak local router Wi-Fi coverage will impact DoboT performance.

### 5. How to delete the board setup?

In order to delete an already setup DoboT from the user phone/tablet, he must:

- Launch the dobona app
- Press on the Setup button on the bottom of the screen
- The user must make sure his phone/tablet is connected to the internet
- Press on the green line of the board name (water\_tank in our case) □ The below screen is displayed (Fig.10)



Fig 10.



- Enter the board SSID in the input field and then press on the OK button. The app. will send info to the server to delete the “water\_tank” board information and will also delete it from the phone if the server acknowledges that the entered SSID was correct.

## **6. Contact information**

For more information or comments, please do not hesitate to contact the Dobona technical team by email at: [info@iotsprint.com](mailto:info@iotsprint.com)

We are available from 8:00AM (GMT+3) to 6:00PM (GMT+3).