



Setup & Installation

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1. Introduction

The following file contains information about setting up and running a pulse counting dobona board called DoboP. The DoboP is a small Wi-Fi enabled board that could be placed near a pulse-enabled gas flow meter or electric power meter to count their outgoing pulses and send them to the cloud over the internet. A user downloaded application from either Apple store or Google play can remotely read the number of pulses online. Furthermore, the DoboP can have a limit setup that when exceeded will send an alarm email to the registered user(s). Typical usage for the DoboP is to read the consumption of gas or electricity of a residential or commercial unit. A gas or electricity company can remotely monitor the consumption and prepare in advance the bill without having to send a person to report it back manually. The DoboP should be powered by a regulated 12V/500mA supply (not provided). The exact terminal connections are drawn on the DoboP enclosure fascia. The gas or electricity meter pulse should be from a dry contact.

2. Prerequisites

To install DoboP, the user must:

- Have basic information about installing electrical components, otherwise call an electrician to do the required wiring
- Own a DoboP 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 DoboP at a location close to the gas tank and makes sure that it is covered by his wifi 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 DoboP 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 beige background (Fig.2).

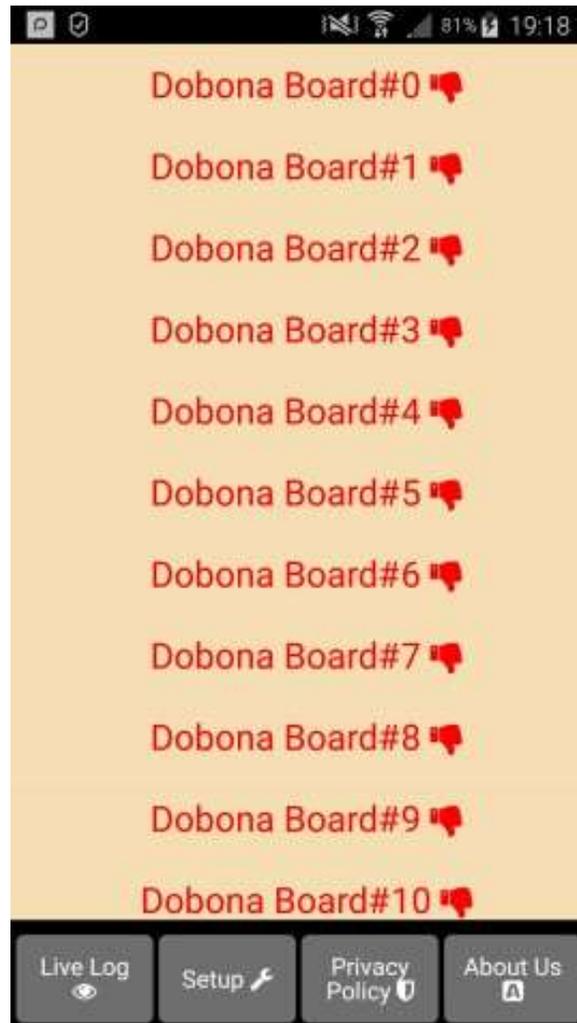


Fig 2.

6. In order to setup a board, the user should press any of the red lines. Supposing he presses on the first line (Dobona Board#0), after which he is presented with a popup screen to choose the board type (Fig.3). Since we are interested in DoboP board only, the user should press the DoboP (pulse).

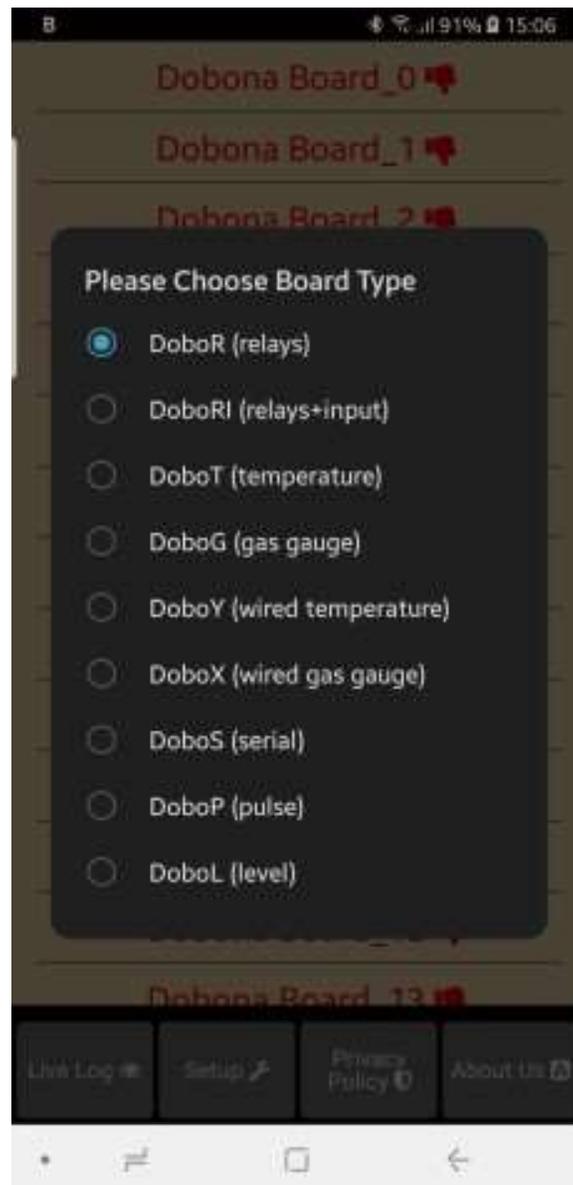


Fig 3.

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 “pulse_meter” 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).

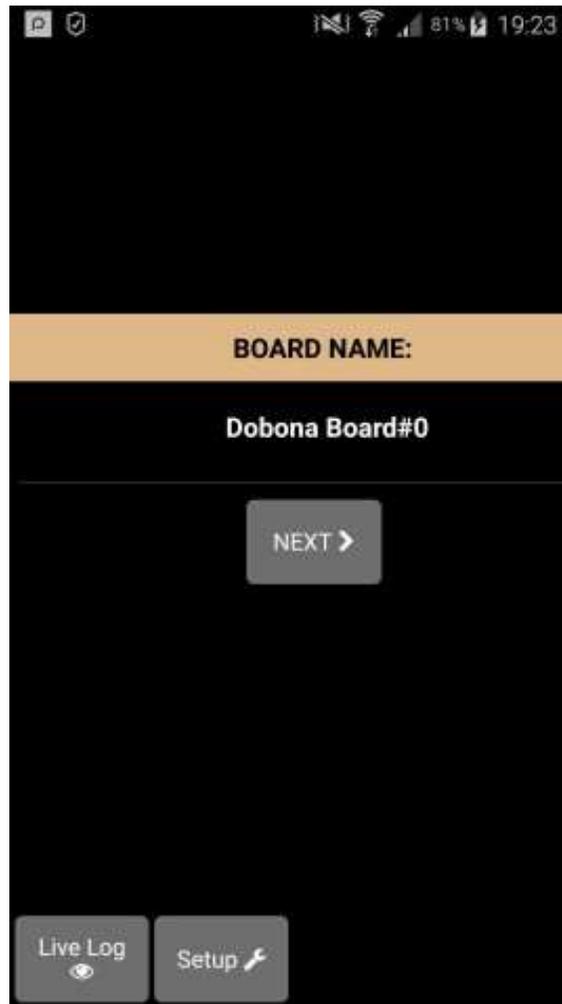


Fig 4.

8. User must enter the ssid and password of the internet enabled Wi-Fi network where the DoboP will be installed. The reg.key is automatically generated by the server. If the user wishes to receive email notifications whenever the alarm 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 user should also fill the “Alarm” level field, even if it is not needed. The “Master” option is reserved for now. 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 DoboP 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 DoboP 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).

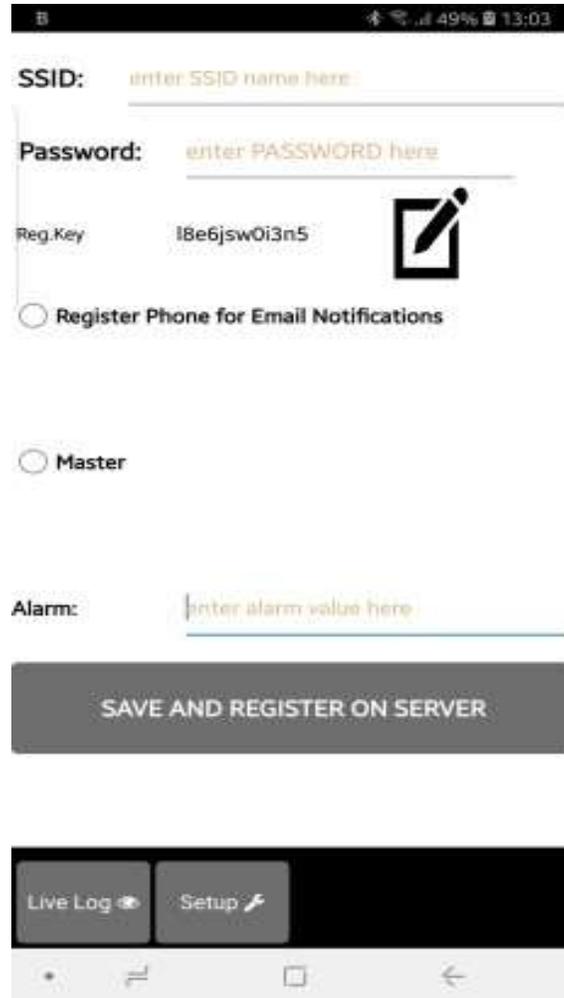


Fig 5.

9. On the next page (Fig.6) the user has to switch the phone/tablet Wi-Fi connection to the “dobona_xxx” network that should appear on the list of available Wi-Fi networks. That network requires no password. The user can tick the high speed communication for the fastest communication between DoboP and the server, the enable power up notification for receiving an email after each DoboP powering up. Pressing the send info to dobona will send the entered data to the DoboP. If the connection was successful then the “dobona” network should disappear from the list of available the live log screen (Fig.7) is shown. The user will notice that the



Dobona Board#0 is now replaced with pulse_meter, with a green font and thumbs up to indicate that the board has been setup. Please check section “4. How to run the board” in order to run DoboP.

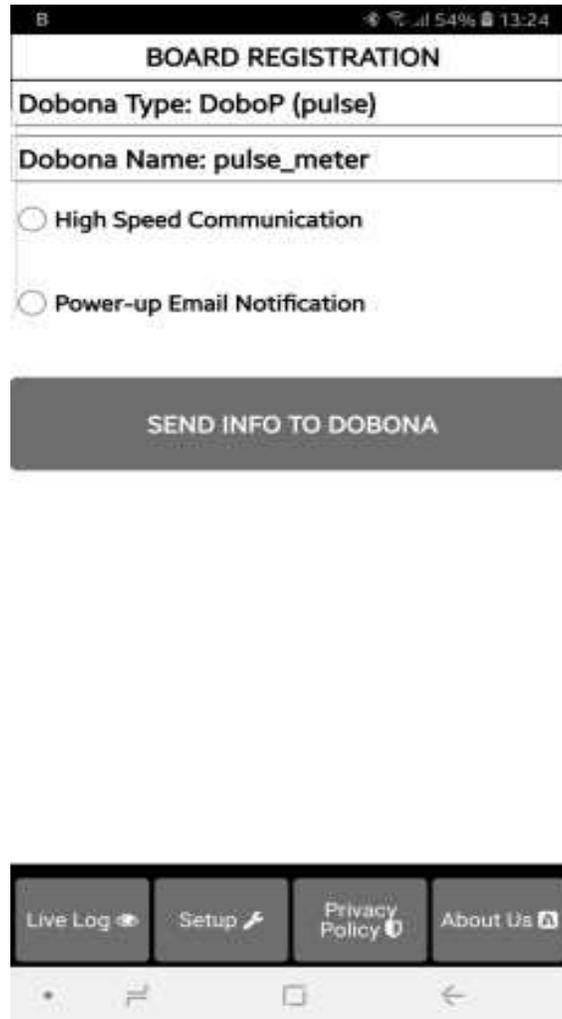


Fig 6.



Fig 7.

10. Now pressing on the pulse_meter line will display the live log screen related to the DoboP board that has been setup (Fig.8). The counter (number of pulses so far) is displayed on the screen together with the last time the DoboP board checked with the server. This information is important for the user to know if the DoboP and its internet connection are working properly within a certain time period. If for instance the screen displays an unusually long time, it could be an indication that the DoboP or its internet connection or router are facing issues. The “Relay Is:” field is reserved for now.



Fig 8.

11. Notice the “HISTORY” button on the screen upper left 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.). 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 Timezone” button. This is important for the server to save the Date/Time chart data according to the board local Timezone.

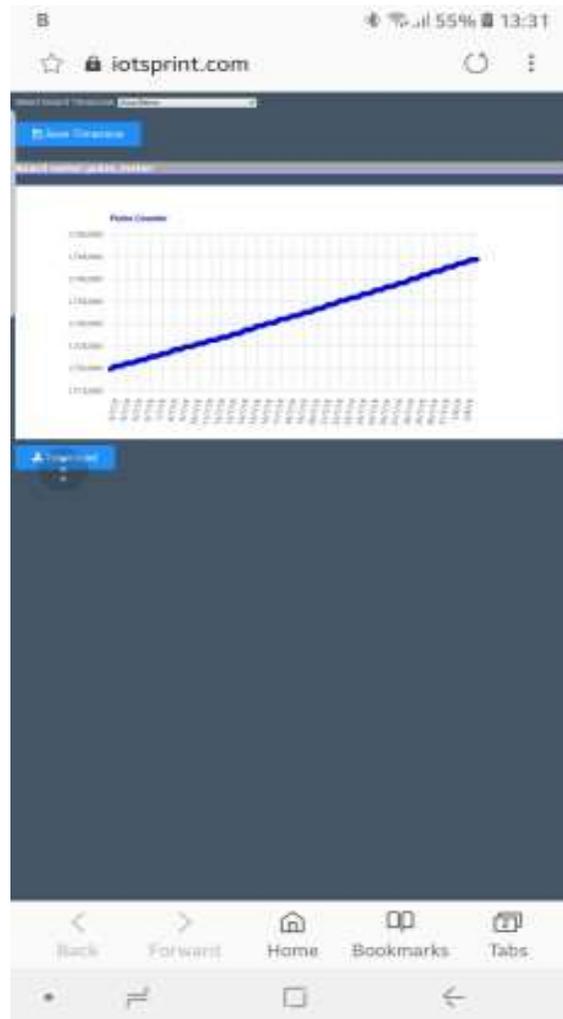


Fig 9.

4. How to run the board?

After successful setup, the user must:

- Power down the DoboP by removing the 12V supply
- Remove the jumper on the DoboP board
- House the DoboP back in its enclosure
- Place the enclosure in its final panel destination
- Power up the DoboP. The DoboP 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 DoboP performance.



5. How to delete the board setup?

In order to delete an already setup DoboP 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 (pulse_meter 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 “pulse_meter” 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

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