

## Part I: Setting up things.ph

<https://things.ph/> will act as your MQTT broker.

1. Create an account using your email address.

2. Creating Device Type:

- a. On the left hand side of the screen, open the menu and select Device Types
- b. On the right hand side of the screen, click Add New
  - i. The code should be BMP\_180 and the label should be TS

New Device Type

Add New

Settings

Code \*

BMP\_180

Label

TS

Add and Update

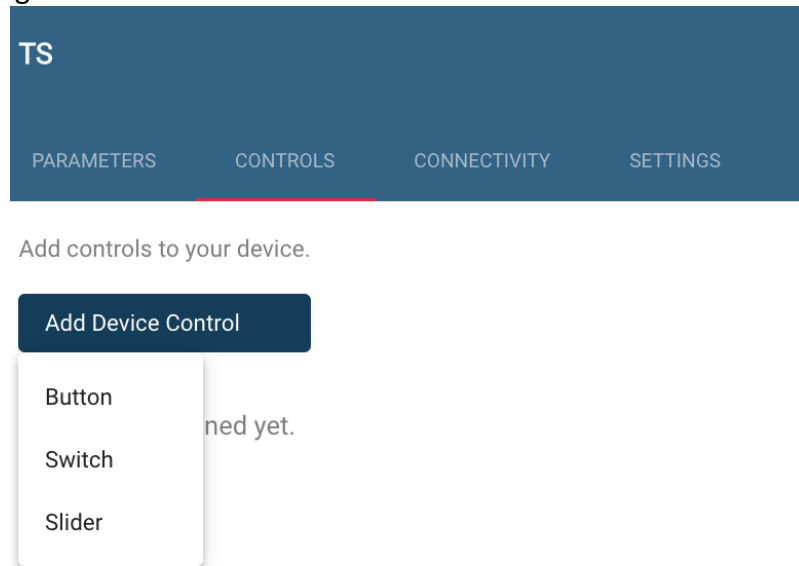
c. Add the following telemetries.

### Telemetries

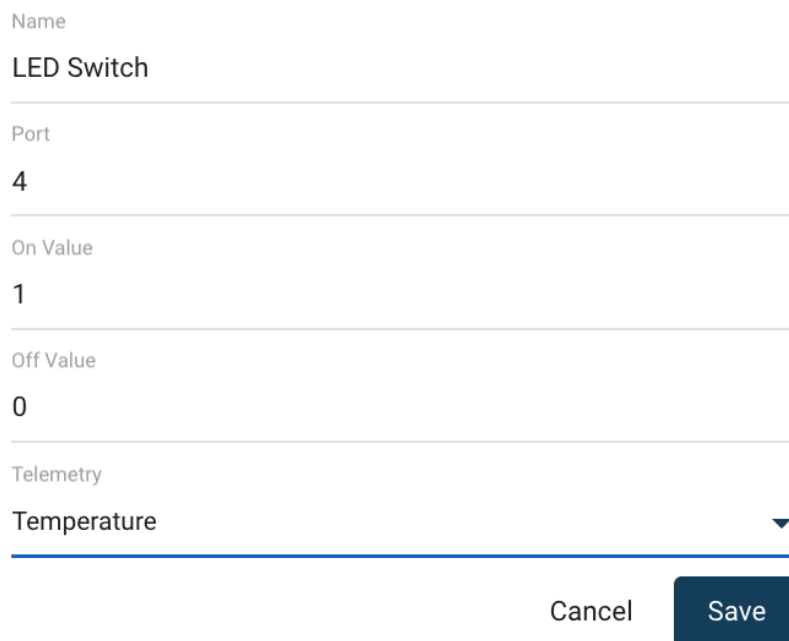
Code	Label	Matcher	Unit	
temperature	Temperature	payload_fields.temperature	F	
pressure	Pressure	payload_fields.pressure	kPa	
led	LED	payload_fields.led		
switch	Switch	payload_fields.switch		

Be careful to ensure that the Matcher fields is `payload_fields.“code”`, otherwise, there will be issues with creating dashboards later.

d. Next go to **Controls** -> **Add Device Control** -> **Switch**



e. Change the Name to LED Switch, and select the Telemetry: Temperature



### 3. Creating Device

- On the lefthand side of the screen, open the menu and select Devices
- Click Add Device, and fill the following fields as shown below:

## Add device

Device name \*

RaspiMQTT

Hardware Reference \*

RaspiMQTT

Location

Choose a device type \*

TS

Choose group

None

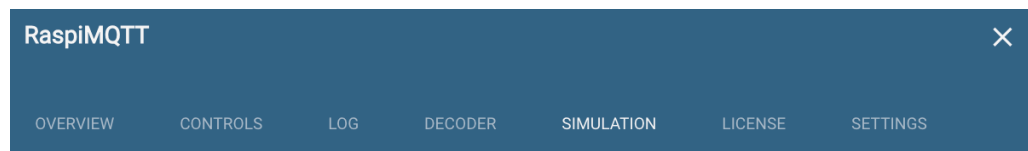
Choose License\*

Free Device License

Save

Make sure that the Device type corresponds to the Device type you just created.

c. Once you have created your device, go to **Devices** and select your device. On the top, select simulation and click “send payload”



## Data Generator

Automatically create data for testing your applications while the hardware is not yet ready to send data.

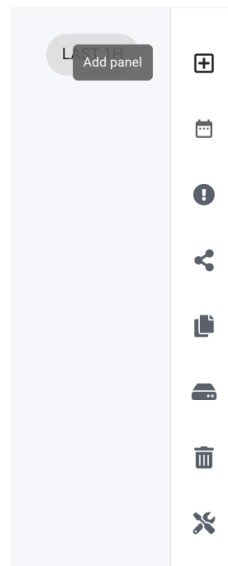
### Send Simulated Data Event

```
1 {  
2   "hardware_serial": "RaspiMQTT",  
3   "payload_fields": {  
4     "temperature": 15,  
5     "pressure": 38,  
6     "led": 5,  
7     "switch": 22  
8   }  
9 }
```

Send Payload

#### 4. Creating Dashboard

- On the lefthand side of the screen, open the menu and select Dashboards
- Click the + button to create a new Dashboard, provide a Dashboard Name. On the right-hand side of the screen, there is a menu for the dashboard. Select the + surrounded by a box on the top to add a new panel.



- When creating a panel, make sure to select **REAL-TIME**, the Device should be the name of the device you just created, and **Aggregation** should be current. Select a telemetry. Make sure to change the panel name to match the telemetry selected.  
**MAKE SEPARATE PANELS FOR EACH TELEMETRY.**

CHART TYPE

USE PRESET PANELS

Chart Group  
SERIES

LINE

**REAL-TIME**

COLUMN

BAR

DATA SOURCE

Device Group  
ALL

Device  
RaspiMQTT

Telemetry  
temperature

☒ GROUP BY TELEMETRY

Aggregation  
Current

Time Range  
Last 1 minute

☐ GROUP BY VALUE

FILTER VALUES

Operator

Value

Color Scheme

APPEARANCE

TEMPERATURE

LAST 1M

10F

9F

8F

7F

6F

5F

4F

3F

2F

1F

0F

10:11:51

10:12 pm

10:12:05

10:12:10

10:12:15

10:12:20

10:12:26

10:12:31

10:12:36

10:12:41

10:12:46

Panel Name  
Temperature