NodeMCU with DHT11 using BLYNK

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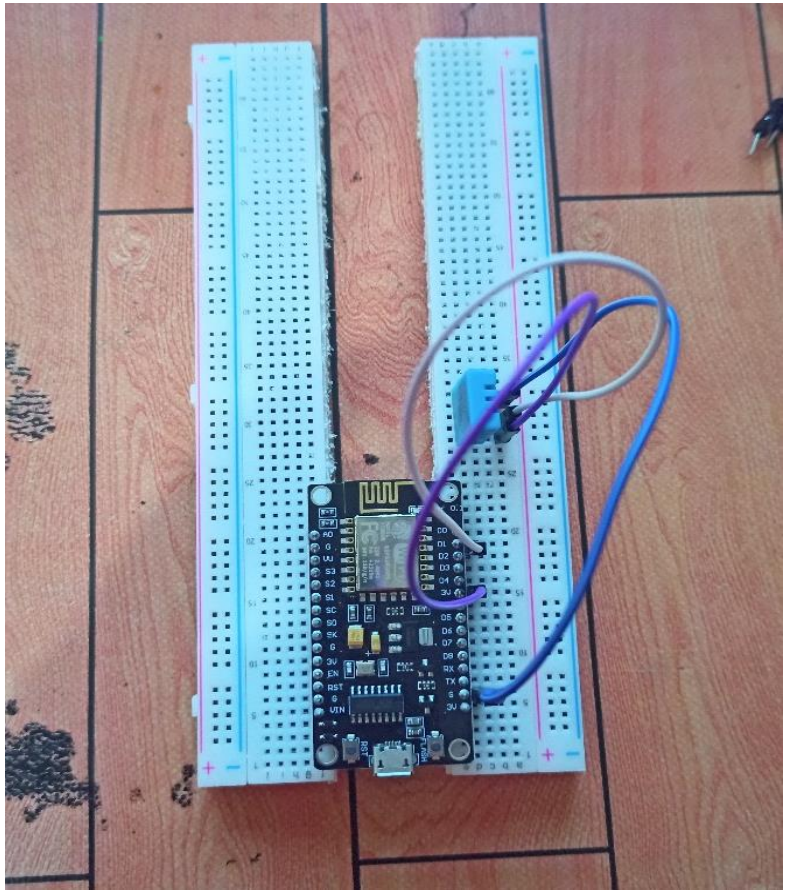
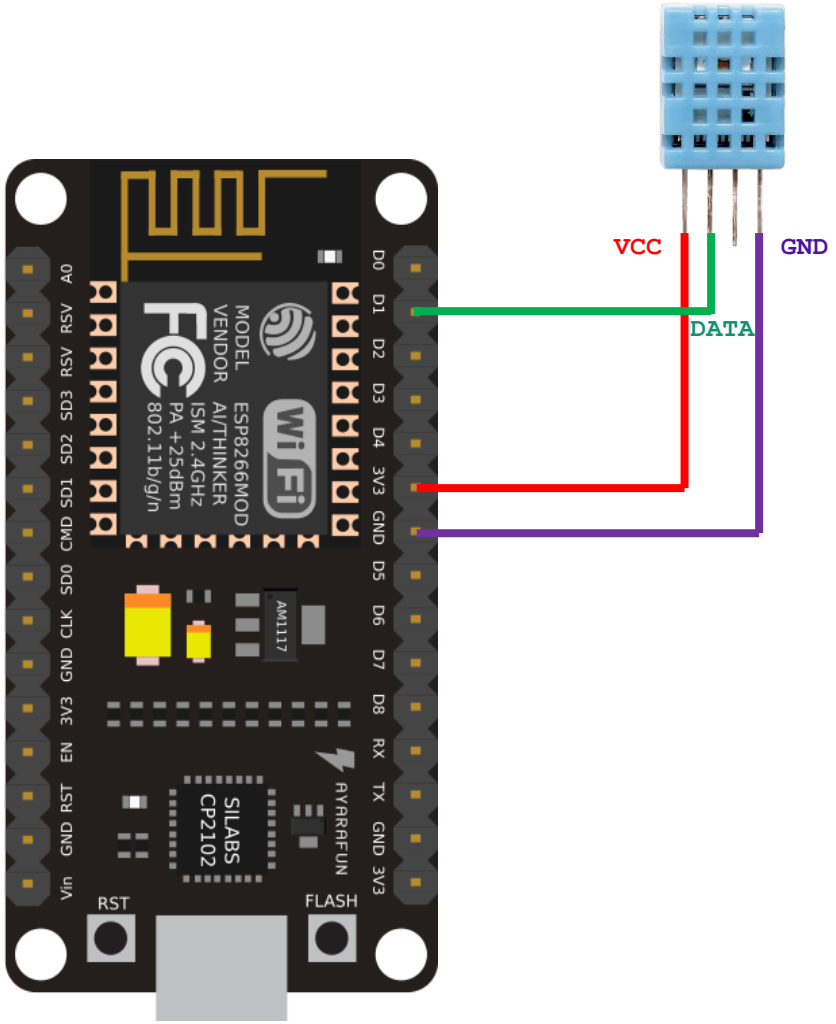
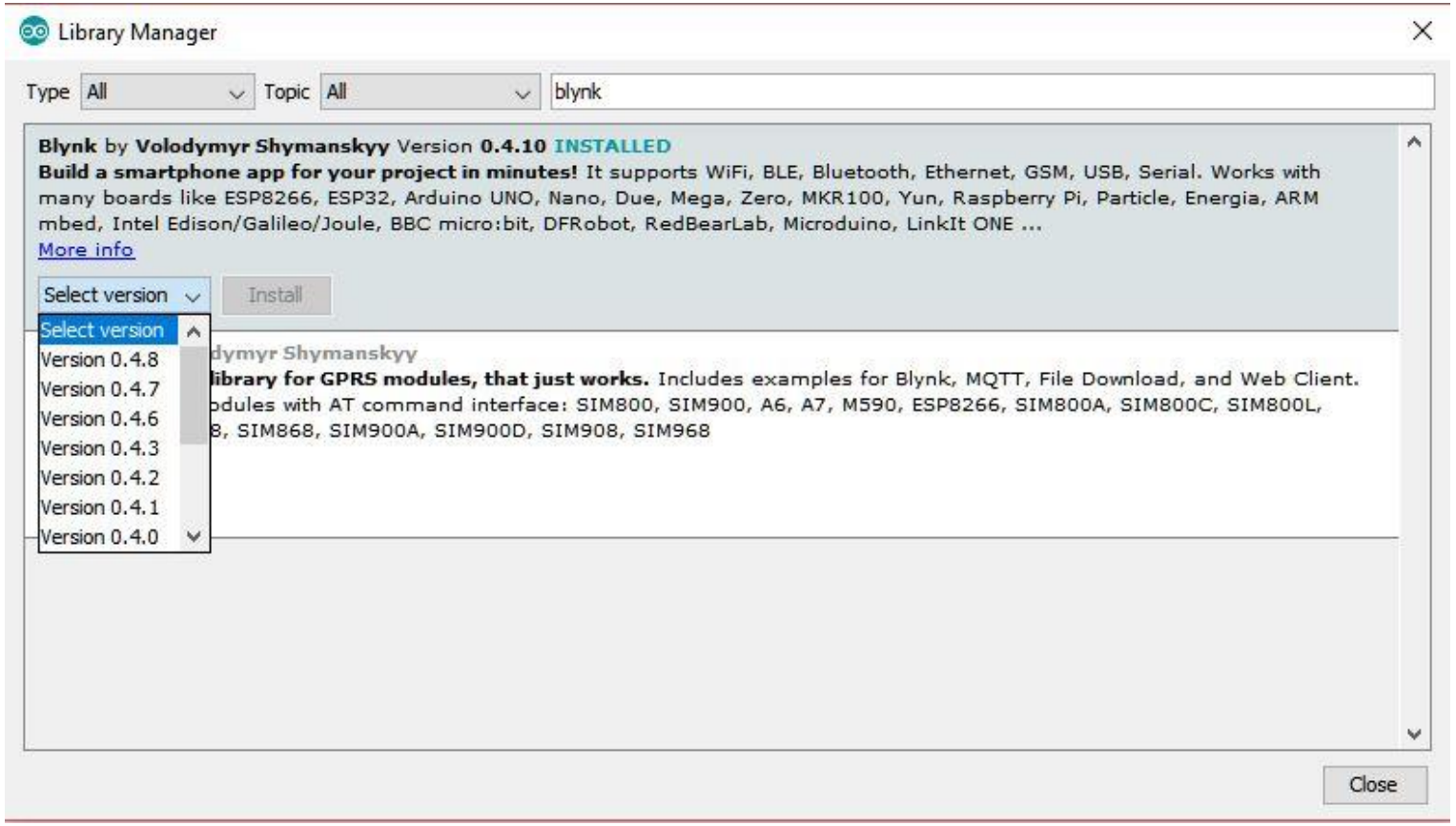
BINUS GRADUATE PROGRAM (MTI REGULER P.2012)

Blueprint




VCC
GND
DATA
RST
FLASH
SILABS
CP2102
AM1117
ESP8266MOD
AI/THINKER
ISM 2.4GHz
PA +25dBm
802.11b/g/n

Blynk Library

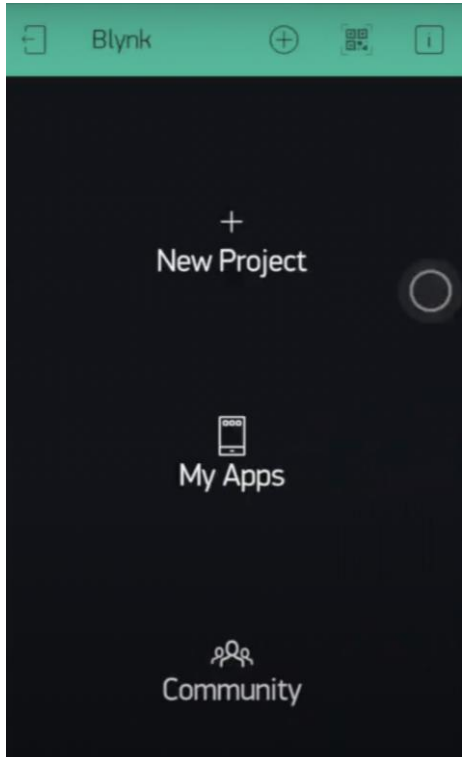


Scripts

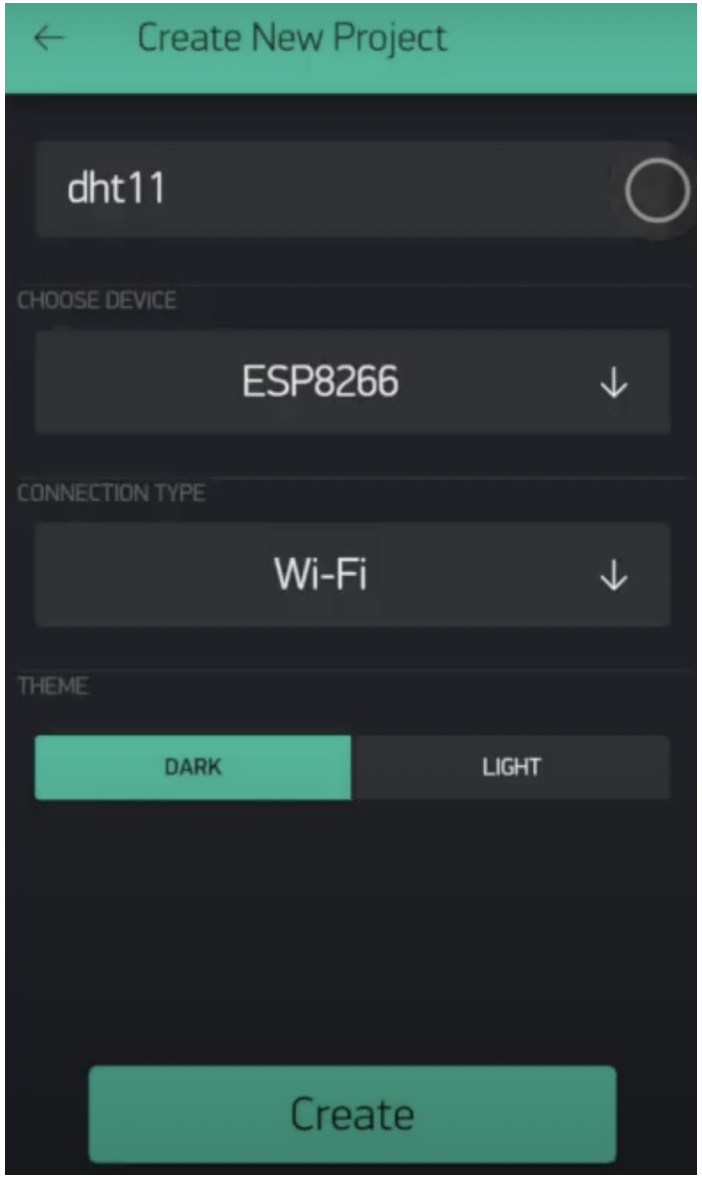
https://github.com/abdazzamajhari/ESP8266-DHT11-Blynk

```
#define BLYNK_PRINT Serial
#include <BlynkSimpleEsp8266.h>
#include <SPI.h>
#include <ESP8266WiFi.h>
#include "DHT.h"

char auth[] = "S6kgpOckbJWevYez5Rxrr2kKcLAw5SXj";
char ssid[] = "Azzam";
char pass[] = "azzam53a";

#define DHTPIN D1
#define DHTTYPE DHT11

DHT dht(DHTPIN, DHTTYPE);
SimpleTimer timer;

void sendSensor()
{
  float hum = dht.readHumidity();
  float tem = dht.readTemperature(); // or dht.readTemperature(true) for Fahrenheit

  if (isnan(hum) || isnan(tem)) {
    Serial.println("Failed to read from DHT sensor!");
    return;
  }
  // You can send any value at any time.
  // Please don't send more that 10 values per second.
  Blynk.virtualWrite(V5, tem);
  Blynk.virtualWrite(V6, hum);
  // SETUP the ALARM Trigger and Send EMAIL
  // and PUSH Notification

  if(tem > 28){
    Blynk.email("abdul.ajhari@binus.ac.id", "ESP8266 Alert", " Temperature over 28C!");
    Blynk.notify("ESP8266 Alert - Temperature over 28C!");
  }
}

void setup(){
  Serial.begin(9600);

  Blynk.begin(auth, ssid, pass);

  dht.begin();

  timer.setInterval(2500L, sendSensor);
}
void loop()
{
  Serial.println(" ====== DHT11 SENSOR ====== ");

  float hum = dht.readHumidity();
  float tem = dht.readTemperature();
  Serial.print(" Humidity DHT11: ");
  Serial.print(hum);
  Serial.print("% ");
  Serial.print("\n");
  Serial.print(" Temperature DHT11: ");
  Serial.print(tem);
  Serial.print("°C ");
  Serial.print(">>> ");
  Serial.print((int)round(1.8*tem+32));
  Serial.println("°F ");
  Blynk.run();
  timer.run();

  delay(10000); //waiting for 10 seconds
}
```

Setting Blynk #1

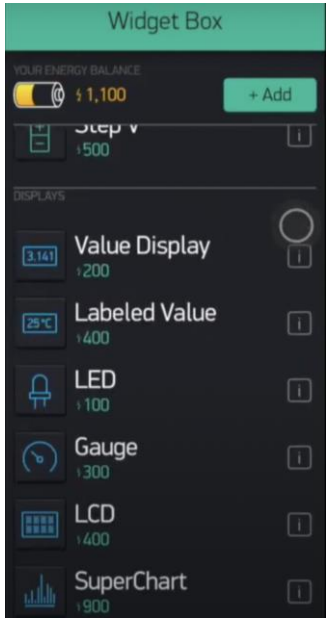


- Download Blynk
- Click on the "New Project"



Setting Blynk #2

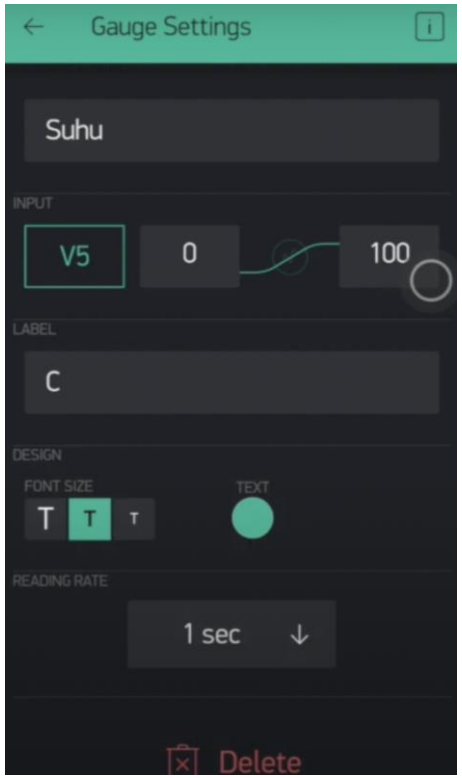
- Input the name of your projects
- In the options of "Choose Device" pick "ESP8266"
- Because the IoT device we are choosing connect to Wifi and then at the "Connection Type" pick "Wi-Fi"
- Create



Setting Blynk #3

- Add Widget Box
- Pick "Gauge" two times on the Display Lists

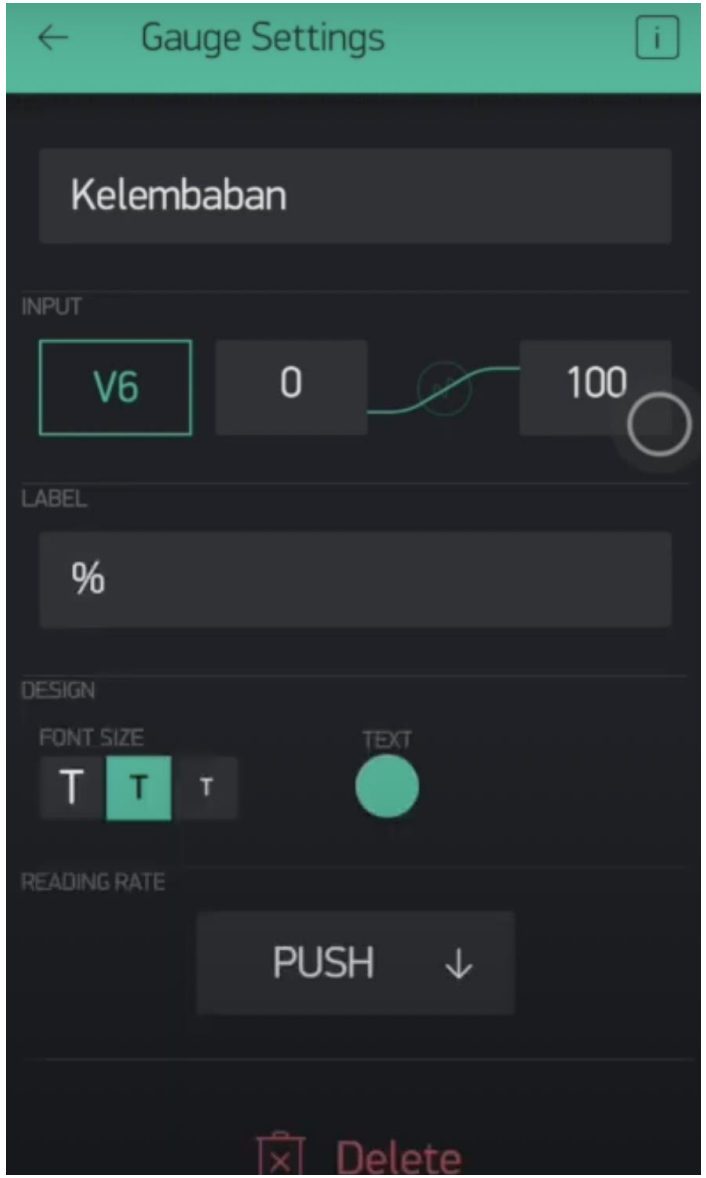
Setting Blynk #4



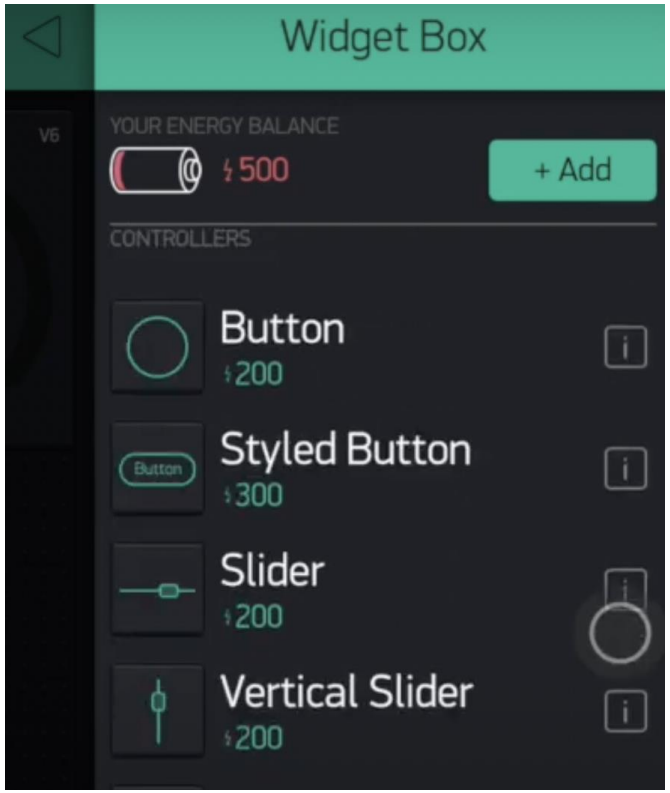
- Click on the first Gauge
- Fills the dashboard you want to show, example: Suhu
- Set your configuration like this picture

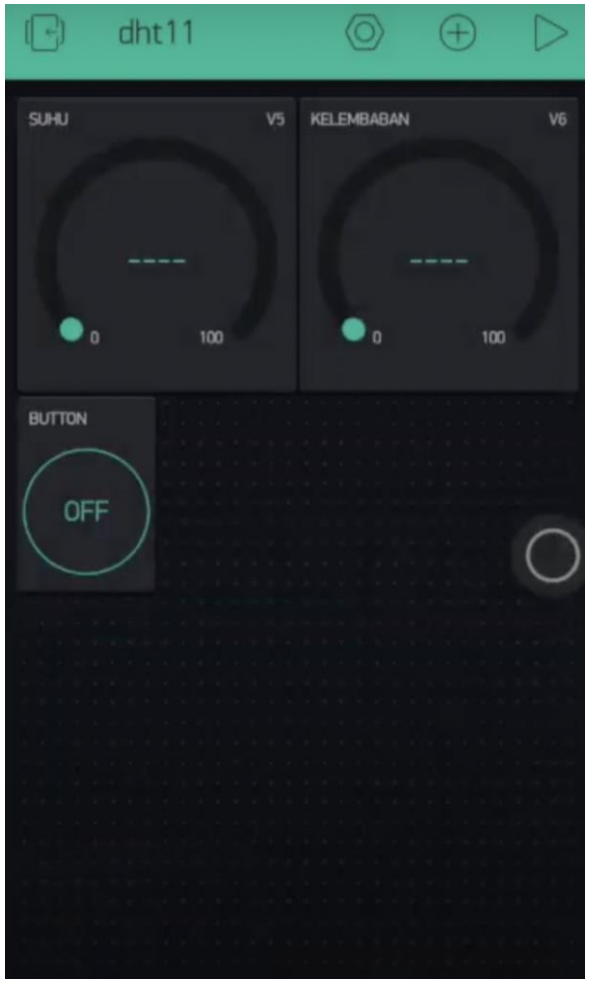
Setting Blynk #5

- Click on the second Gauge
- Fills the dashboard you want to show, example: Kelembapan
- Set your configuration like this picture



Setting Blynk #6





Add Widget Box

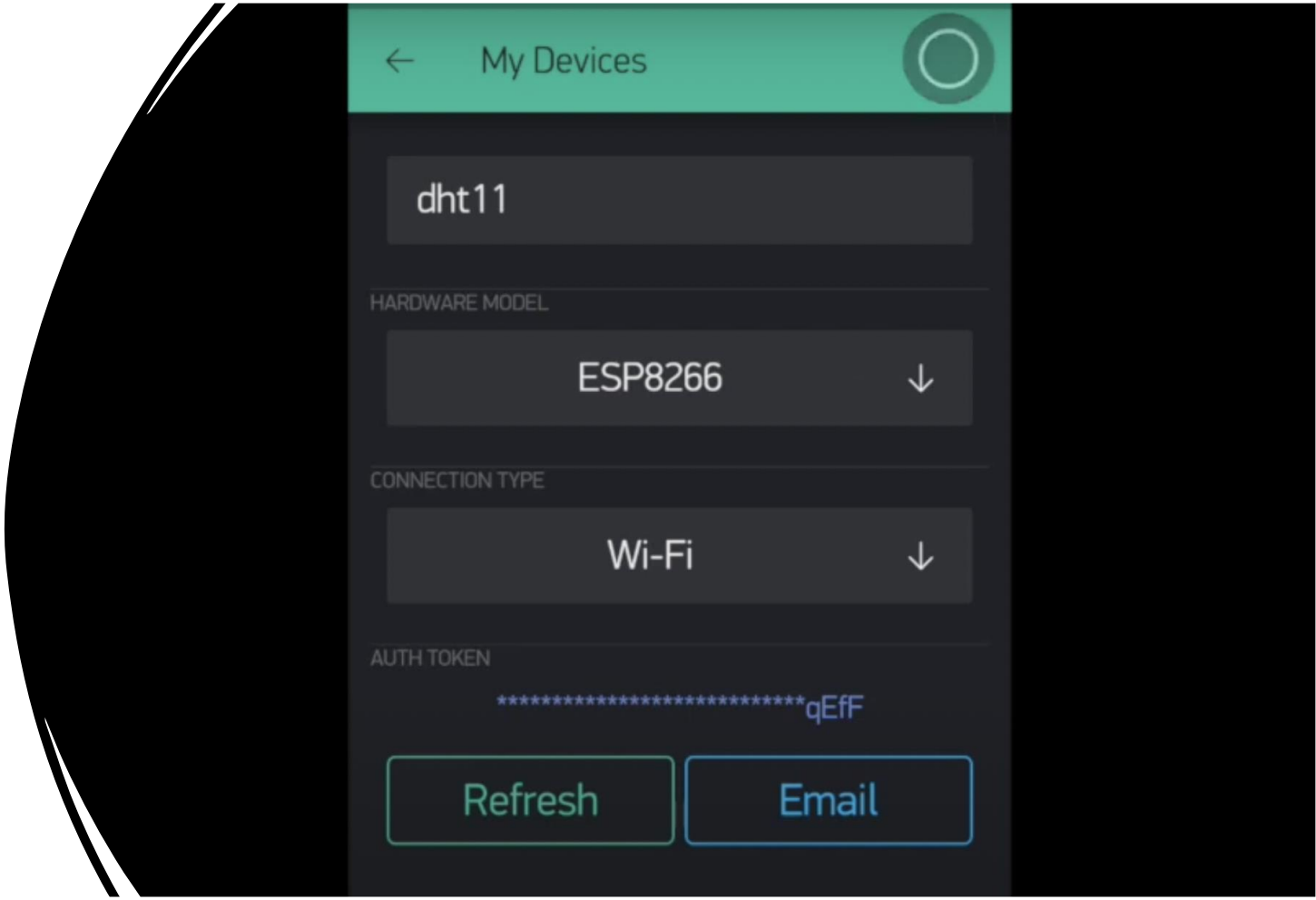
Pick "Button" on the Controllers

Setting Blynk #7

- Click on the Button
- Fills the button you want to know, example: Tombol
- Set your configuration like this picture

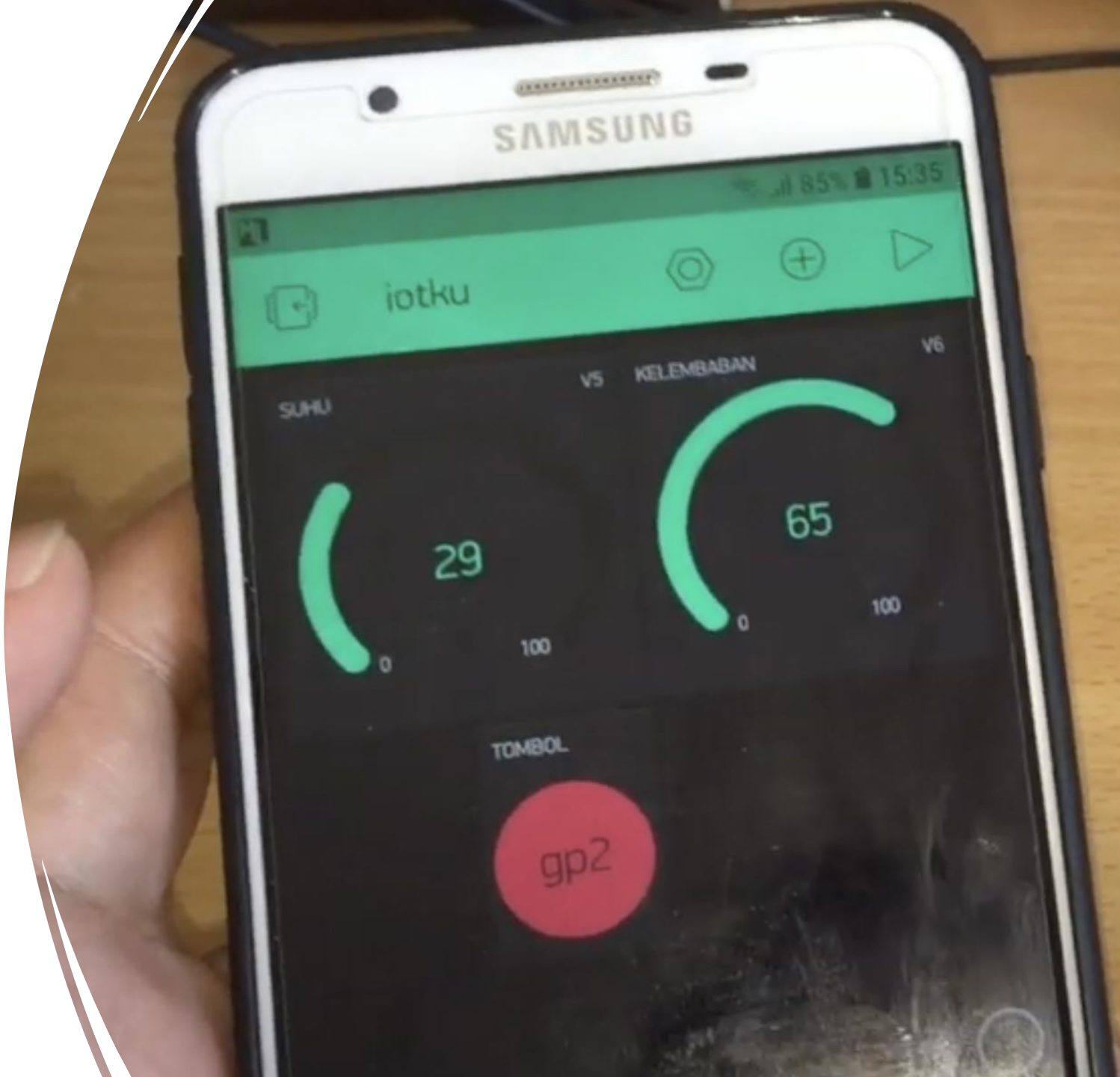
Get Authentication Token

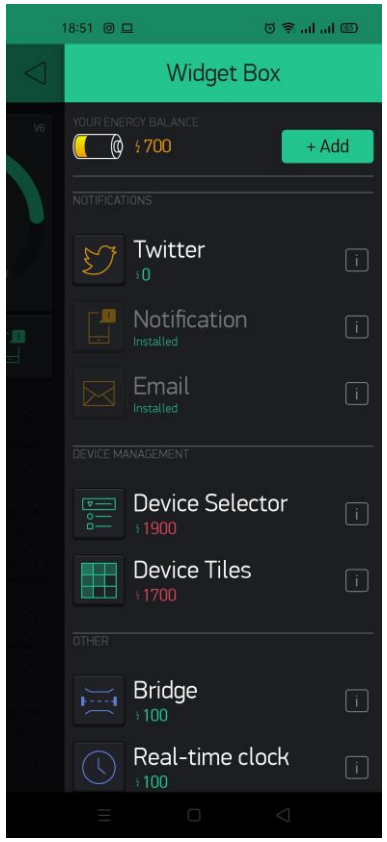
- Click Settings
- Choose the Devices
- Click My Devices
- Save the Auth Token for handshaking the IoT devices into BLYNK



Outputs

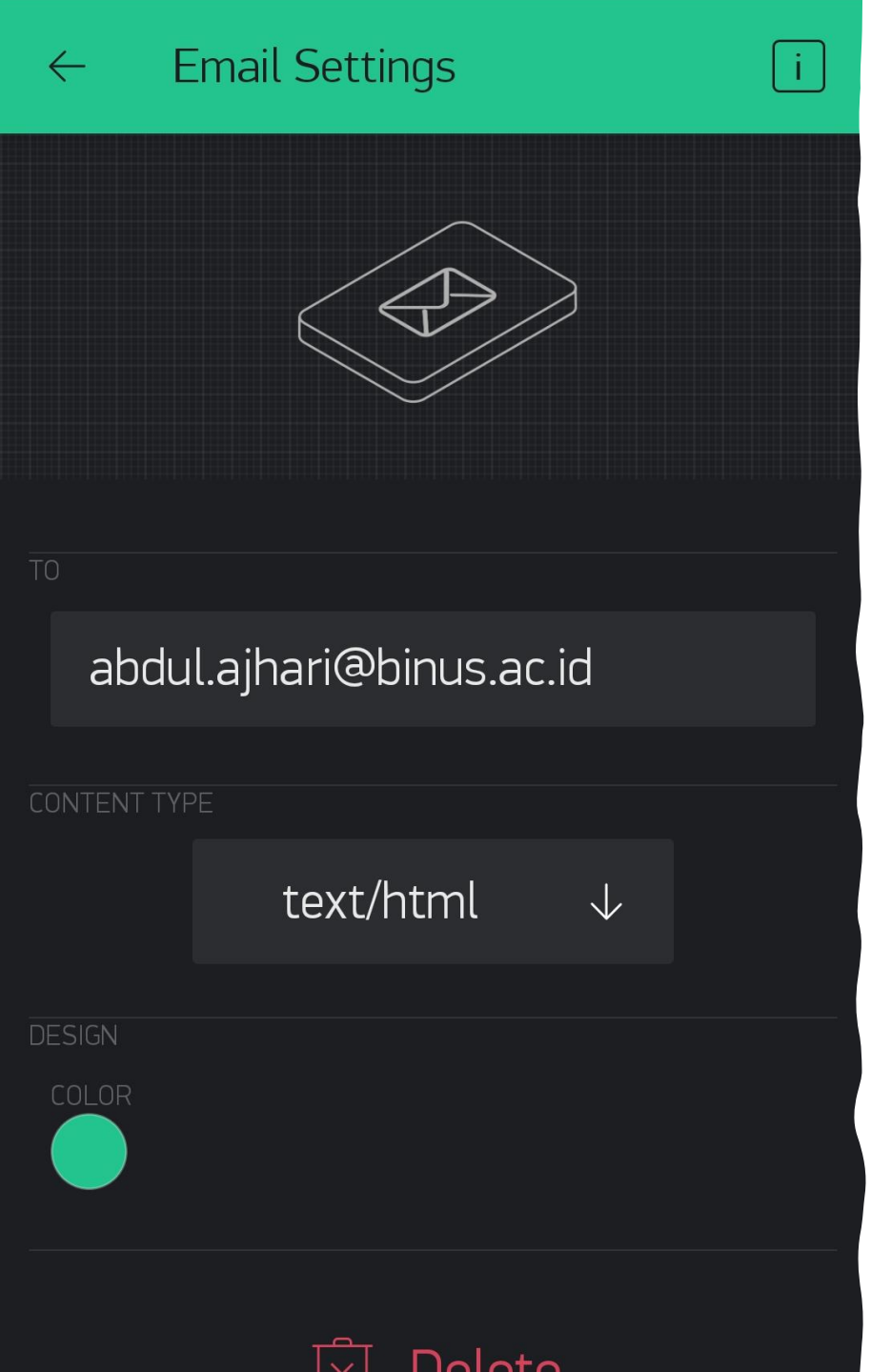
It's Cools right?





Make a notification

- Click Widget Box
- Add Notification
- Add Email

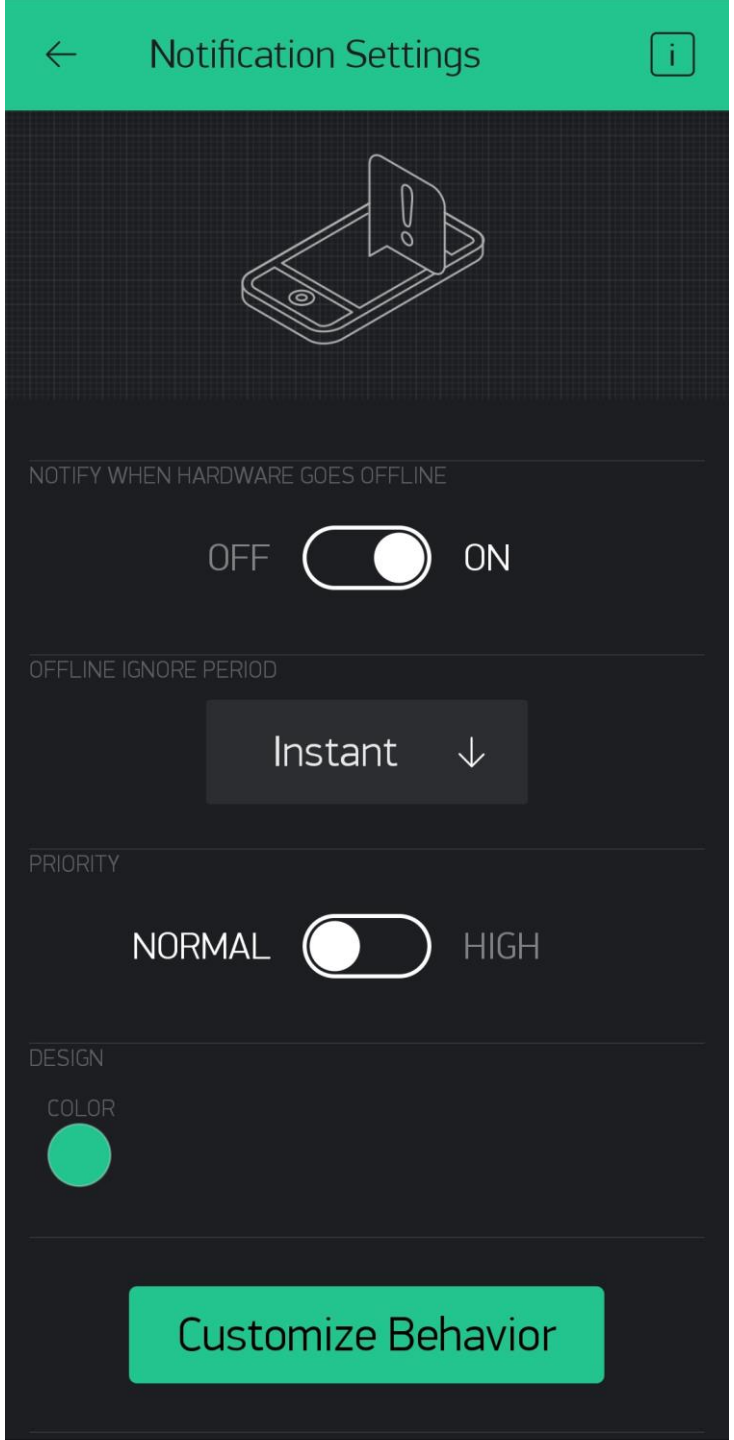


Config Email Settings Widget

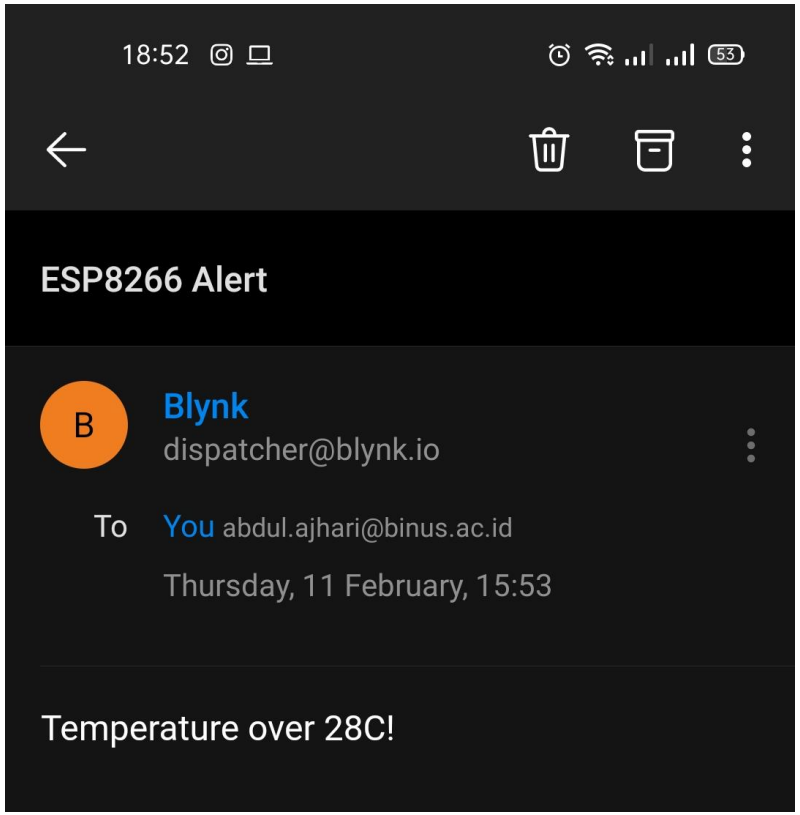
- Input your email to sending the notification between your smartphone into your email.
- Set content type to "text/html"

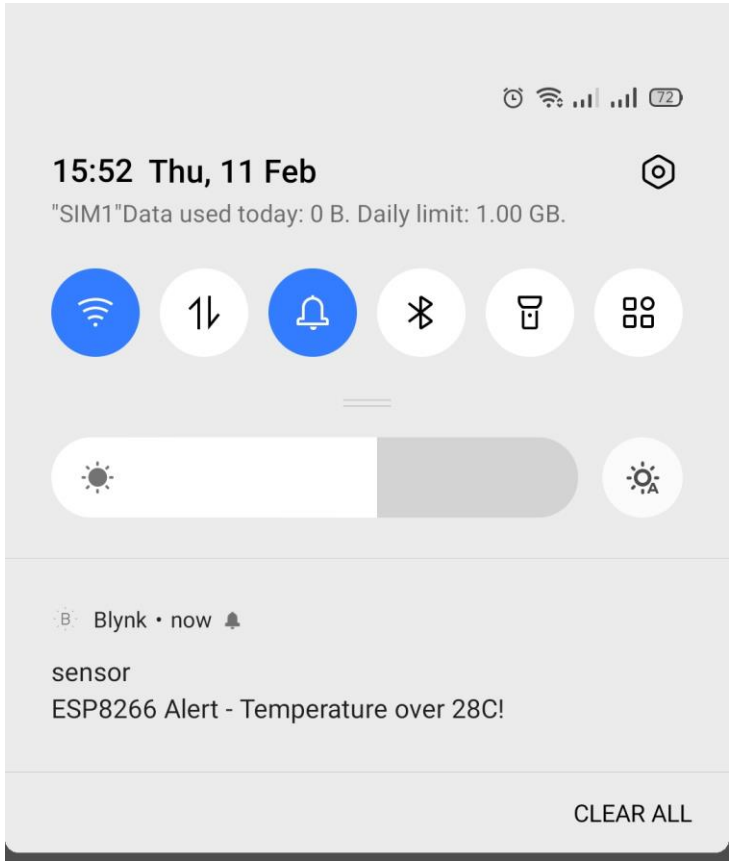
Config Notification Settings Widget

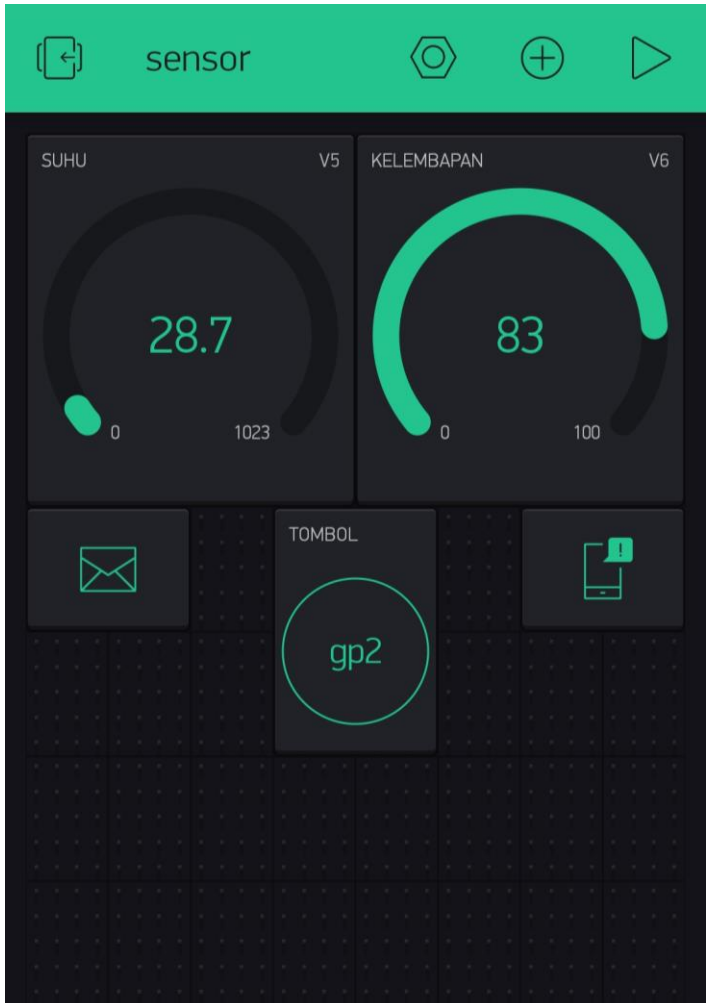
- If you want to show up the notification on your smartphones, you can activate the "notify when hardware goes offline" switch to ON
- Choose ignore period as you want
- Set Priority as you want



Thank you!


18:52
ESP8266 Alert
B
Blynk
dispatcher@blynk.io
To You abdul.ajhari@binus.ac.id
Thursday, 11 February, 15:53
Temperature over 28C!


15:52 Thu, 11 Feb
"SIM1"Data used today: 0 B. Daily limit: 1.00 GB.
Blynk • now
sensor
ESP8266 Alert - Temperature over 28C!
CLEAR ALL


sensor
SUHU
V5
28.7
0
1023
KELEMBAPAN
V6
83
0
100
TOMBOL
gp2

References

http://kursuselektronikaku.blogspot.com/2019/10/iot-project-blynk-nodemcu-esp8266.html

https://www.geekstips.com/esp8266-email-and-push-notifications-iot-blynk/