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## LAMPIRAN

### Koneksi Pin

<b>ESP 32</b>	<b>Module GPS</b>
VIN	VCC
GND	GND
RX2	TXD
TX2	RXD

<b>ESP 32</b>	<b>Module GSM</b>
3V3	VDD
GND	GND
D2	SIM_RXD
D4	SIM_TXD

<b>ESP 32</b>	<b>Micro USB Charger</b>
VIN	VCC
GND	GND

<b>ESP 32</b>	<b>Push Button</b>
D21	1
GND	2

<b>Module GSM</b>	<b>Push Button</b>
GND	2

<b>Module GPS</b>	<b>Micro USB Charger</b>
VCC	VCC
GND	GND

<b>Baterai</b>	<b>Micro USB Charger</b>
-	BAT-

<b>Saklar</b>	<b>Baterai</b>
2	+

<b>Saklar</b>	<b>Micro USB Charger</b>
1	BAT+

Program Arduino IDE

```

#define BLYNK_TEMPLATE_ID "TMPLBqj73V0Y"
#define BLYNK_DEVICE_NAME "Tas GPS"
#define BLYNK_AUTH_TOKEN "szGiMmLW0YOBi3rMqueGB_kdjuzThzHM"
//Konfigurasi Blynk Project

char auth[] = BLYNK_AUTH_TOKEN; //token Blynk

#define BLYNK_PRINT Serial
#define TINY_GSM_MODEM_SIM800
#include <TinyGsmClient.h>
#include <BlynkSimpleTinyGSM.h>
#include <TinyGPS++.h>

#define RXPin 4
#define TXPin 2
#define RXPin2 16
#define TXPin2 17

HardwareSerial sim800(1); //serial untuk sim800l
HardwareSerial neogps(2); //serial untuk neogps

TinyGPSPlus gps;
TinyGsm modem(sim800);

int buttonEmergency = 21;
float lat1;
float lon1;
String GPSlat_;
String GPSlng_;
char GPSlat [8];

```

```

char GPSlng [8];

int  readbuttonEmergency;

char apn[] = "internet"; //apn kartu gsm
char user[] = "wap";
char pass[] = "wap123";

//WIDGET MAPS BLYNK
WidgetMap myMap(V0);

void setup() {
  pinMode(buttonEmergency, INPUT_PULLUP);
  Serial.begin(115200);
  Serial.println("esp32 serial initialize");
  delay(10);

  //Set GPS module baud rate
  neogps.begin(9600, SERIAL_8N1, RXPin2, TXPin2);
  Serial.println("neogps serial initialize");
  delay(10);

  //Set GSM module baud rate
  sim800.begin(9600, SERIAL_8N1, RXPin, TXPin);
  Serial.println("SIM800L serial initialize");
  delay(3000);
  Serial.println("Initializing modem...");
  modem.restart();

  Blynk.begin(auth, modem, apn, user, pass);

  Blynk.logEvent("Connected", "Tas GPS Aktif"); // Up data
  Terkoneksi ke Event Blynk
}

void emergency() {
  Blynk.logEvent("Emergency", "Darurat! Tas anda dalam keadaan
darurat!"); // Up data Emergency ke Event Blynk
  String Messages1 = "DATA GPS: " + String (GPSlat_) + ", " + String
(GPSlng_) + "\n";
  Messages1 += "www.google.com/maps/?q=" + String (GPSlat_);
  Messages1 += ", " + String (GPSlng_);
  Blynk.logEvent("SendEmail", Messages1); // Up data Link GMaps
  Lokasi terbaru ke Event Blynk
}

void sendToBlynk() {

```

```

    if (gps.location.isUpdated()) {
        // Pembacaan Nilai Latitude dan Longitude dari GPS
        lat1 = gps.location.lat(); // Mengambil data Latitude dari
        Sensor GPS Neo 6M
        lon1 = gps.location.lng(); // Mengambil data Longitude dari
        Sensor GPS Neo 6M

        // Konversi Tipe Data Float ke String
        dtostrf( lat1, 2, 6, GPSlat); // Konversi tipe data float
        ke string untuk variabel Latitude
        GPSlat_ = GPSlat;
        dtostrf( lon1, 2, 6, GPSlng); // Konversi tipe data float
        ke string untuk variabel Longitude
        GPSlng_ = GPSlng;

        // Print Serial Monitor
        Serial.print("Latitude= "); // Print Latitude ke Serial
        Monitor
        Serial.print(GPSlat_); // Print Nilai Latitude ke
        Serial Monitor
        Serial.print(" ");
        Serial.print("Longitude= "); // Print Longitude ke Serial
        Monitor
        Serial.println(GPSlng_); // Print Nilai Longitude ke
        Serial Monitor

        // Up Data Ke Blynk
        myMap.location(1, GPSlat_, GPSlng_, "Tas GPS"); // Up Data
        Latitude dan Longitude Ke Variabel myMap Blynk
        Blynk.virtualWrite(V1, GPSlat_); // Up Nilai Latitude ke
        Dashboard Blynk
        Blynk.virtualWrite(V2, GPSlng_); // Up Nilai Longitude ke
        Dashboard Blynk
        Blynk.logEvent("Latitude", GPSlat_); // Up Nilai Latitude ke
        Event Blynk
        Blynk.logEvent("Longitude", GPSlng_); // Up Nilai Longitude ke
        Event Blynk
        delay(1000);
    }
}

void loop() {
    while (neogps.available() > 0) {
        if (gps.encode(neogps.read())) {
            readbuttonEmergency = digitalRead(buttonEmergency);
            if (readbuttonEmergency == LOW) {
                emergency();
            }
        }
    }
}

```

```

Serial.println("Tombol Emergency Ditekan");
delay(1000);
}
sendToBlynk();
}
}
Blynk.run();
}

```

### Dokumentasi selama penelitian



