#include <SoftwareSerial.h>

#define BLYNK\_PRINT Serial

#define BLYNK\_TEMPLATE\_ID "TMPL4rEkaOOQ0"

#define BLYNK\_TEMPLATE\_NAME "Nodemcu GPS"

#define BLYNK\_AUTH\_TOKEN "w9H5cY2xAx3lkp-fMX5S3rE39f\_SVbzN"

#define WIFI\_SSID "Apple shit"

#define WIFI\_PASSWORD "kakakaka"

#include <NMEAGPS.h>

#include <ESP8266WiFi.h>

#include <BlynkSimpleEsp8266.h>

// GPS module 1

#define RX\_PIN\_1 15

#define TX\_PIN\_1 13

// GPS module 2

#define RX\_PIN\_2 12

#define TX\_PIN\_2 14

// GPS module 3

#define RX\_PIN\_3 4

#define TX\_PIN\_3 5

#define GPS\_BAUD 9600

SoftwareSerial gps\_module\_1(RX\_PIN\_1, TX\_PIN\_1);

SoftwareSerial gps\_module\_2(RX\_PIN\_2, TX\_PIN\_2);

SoftwareSerial gps\_module\_3(RX\_PIN\_3, TX\_PIN\_3);

NMEAGPS gps;

gps\_fix fix;

void collectData(SoftwareSerial &gps\_module)

{

gps\_fix fix = gps.read();

unsigned int move\_index = 1;

float gps\_speed;

uint8\_t no\_of\_satellites;

String satellite\_orientation;

WidgetMap myMap(V0);

if (fix.valid.location) {

//Storing the Latitude. and Longitude

float latitude = fix.latitude();

float longitude = fix.longitude();

//Send to Serial Monitor for Debugging

Serial.print("LAT: ");

Serial.println(latitude, 6); // float to x decimal places

Serial.print("LONG: ");

Serial.println(longitude, 6);

Blynk.virtualWrite(V1, String(latitude, 6));

Blynk.virtualWrite(V2, String(longitude, 6));

myMap.location(move\_index, latitude, longitude, "GPS\_Location");

//get speed

gps\_speed = fix.speed\_kph();

Blynk.virtualWrite(V3, gps\_speed);

//get number of satellites

no\_of\_satellites = fix.satellites;

Blynk.virtualWrite(V4, no\_of\_satellites);

// get the satellite orientation/direction

Blynk.virtualWrite(V5, satellite\_orientation);

}

}

void setup()

{

Serial.begin(74880);

Serial.println("Starting GPS Test...");

gps\_module\_1.begin(GPS\_BAUD);

gps\_module\_2.begin(GPS\_BAUD);

gps\_module\_3.begin(GPS\_BAUD);

Blynk.begin(BLYNK\_AUTH\_TOKEN, WIFI\_SSID, WIFI\_PASSWORD);

}

void loop()

{

if (!Blynk.connected()) {

Blynk.connect();

}

while (gps\_module\_1.available() > 0) {

collectData(gps\_module\_1);

}

while (gps\_module\_2.available() > 0) {

collectData(gps\_module\_2);

}

while (gps\_module\_3.available() > 0) {

collectData(gps\_module\_3);

}

}