

APPENDIX

CODING INITIAL DECLARATION

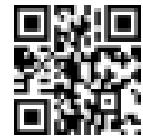
```
1.  #include <TinyGPS++.h>
2.  #include <SoftwareSerial.h>
3.  #define BLYNK_PRINT Serial
4.  #include <ESP8266WiFi.h>
5.  #include <BlynkSimpleEsp8266.h>
6.      static const int RXPin = D1, TXPin = D2;
7.      static const uint32_t GPSBaud = 9600;
8.      int trigger_pin = D0;
9.      int echo_pin = D5;
10.     int buzzer_pin = D6;
11.     int led_pin = D7;
12.     int _time;
13.     int distance;
14.     TinyGPSPlus gps;
15.     WidgetMap myMap(V0);
16.     SoftwareSerial ss(RXPin, TXPin);
17.     BlynkTimer timer;
18.     float spd;
19.     float sats;
20.     String bearing;
21.     char auth[] = "KTJ68et09Q_d41BGGXkSBJxBtaugj4ba";
22.     char ssid[] = "DESKTOP-GJBKPP5 3253";
23.     char pass[] = "nakarom02";
24.     //unsigned int move_index;
25.     unsigned int move_index = 1;
```

CODING SETUP

```
26. void setup()
27. {
28.     Serial.begin(921600);
29.     Serial.println();
30.     ss.begin(GPSBaud);
31.     Blynk.begin(auth, ssid, pass);
32.     timer.setInterval(5000L, checkGPS);
33.     Serial.begin(9600);
34.     pinMode(trigger_pin, OUTPUT);
35.     pinMode(echo_pin, INPUT);
36.     pinMode(buzzer_pin, OUTPUT);
37.     pinMode(led_pin, OUTPUT);
38. }
39. void checkGPS() {
40.     if (gps.charsProcessed() < 10)
41.     {
42.         Serial.println(F("No GPS detected: check wiring."));
43.         Blynk.virtualWrite(V4, "GPS ERROR");
44.     }
```

CODING LOOP

```
45. void loop()
46. {
47.   while (ss.available() > 0)
48.   {
49.     if (gps.encode(ss.read()))
50.       displayInfo();
51.   }
52.   Blynk.run();
53.   timer.run();
54.   digitalWrite (trigger_pin, HIGH);
55.   delayMicroseconds (10);
56.   digitalWrite (trigger_pin, LOW);
57.   _time = pulseIn (echo_pin, HIGH);
58.   distance = (_time * 0.034) / 2;
59.   if (distance >= 130)
60.   {
61.     Serial.println (" jarak talalu dekat ");
62.     Serial.print (" Distance= ");
63.     Serial.println (distance);
64.     digitalWrite (buzzer_pin, HIGH);
65.     digitalWrite (led_pin, HIGH);
66.     delay (500);
67.   }
68.   else {
69.     Serial.println (" jarak talalu jauh ");
70.     Serial.print (" Distance= ");
71.     Serial.println (distance);
72.     digitalWrite (buzzer_pin, LOW);
73.     digitalWrite (led_pin, LOW);
74.     delay (500);
75.   }
76. }
```



2.15% PLAGIARISM
APPROXIMATELY

Report #13872411

INTRODUCTION Background Eyes are the senses that are used to see the state or condition, so that humans can know an object that they see. Not everyone is created with a normal eye condition, there are some who are born with impaired vision. People with visual impairments are called blind people. Blind people have a disability to see, but they can still carry out activities, although it is not uncommon to have to be assisted with tools to simplify and lighten their activities. Based on the problems above, I will examine the design of blind sticks using technology in the form of Ultrasonic Sensors as Obstacle Detectors, Wemos D1 mini as a Controller, UBLOX NEO 6M Module as GPS and then the buzzer will sound. An ultrasonic sensor is a device that can work based on the principle of sound wave reflection, in this case the rtime difference between the received and emitted sound waves is directly proportional to the height or distance of the reflected object. Ublox neo 6m is a gps module with simplified output directly to the