

FRONT PART OF THE VEHICLE (1ST NODEMCU)

```

#include<dht.h>
dht DHT;
#define DHT11_PIN D7
const int trigPin = D2;
const int echoPin = D3;
int buzz= D4;
long duration;
int distance;
void setup() {
  Serial.begin(9600);
  pinMode(D0, INPUT);
  pinMode(D1, OUTPUT);
  pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
  pinMode(echoPin, INPUT); // Sets the echoPin as an Input
  pinMode(buzz,OUTPUT);
}
// the loop routine runs over and over again forever:
void loop() {
  // Clears the trigPin
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  // Sets the trigPin on HIGH state for 10 micro seconds
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  // Reads the echoPin, returns the sound wave travel time in microseconds
  duration = pulseIn(echoPin, HIGH);
  // Calculating the distance
  distance= duration*0.034/2;
  // Prints the distance on the Serial Monitor
  Serial.print("Distance: ");
  Serial.println(distance);
  if (distance<9)
  {
    digitalWrite(D4, HIGH);
  }
  else
  {
    digitalWrite(D4, LOW);
  }
  delay(1000);
  int a = digitalRead(D0);
  Serial.println(a);
  if (a==1)
  {

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    digitalWrite(D1, HIGH);
  }
  else
  {
    digitalWrite(D1, LOW);
  }
  delay(500);
int chk = DHT.read11(DHT11_PIN);
Serial.println(" Humidity " );
Serial.println(DHT.humidity, 1);
Serial.println(" Temperature ");
Serial.println(DHT.temperature, 1);
delay(2000);
}

```

BACK PART OF THE VEHICLE (2ND NODEMCU)

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// defines pins numbers
const int trigPin = D0;
const int echoPin = D1;
int soundSensor=A0;
int LED=D4;
boolean LEDStatus=false;
int vibr_pin=D3;
int LED_Pin=D8;
int green=D5;
int yellow=D6;
int buzz= D2;// for buzzer
// defines variables
long duration;
int distance;
void setup() {
  pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
  pinMode(echoPin, INPUT); // Sets the echoPin as an Input
  pinMode(buzz,OUTPUT);
  pinMode(soundSensor,INPUT);
  pinMode(LED,OUTPUT);
  pinMode(vibr_pin,INPUT);
  pinMode(LED_Pin,OUTPUT);
  pinMode(green,OUTPUT);
  pinMode(yellow,OUTPUT);
  Serial.begin(9600); // Starts the serial communication
}
void loop() {
  int SensorData=analogRead(soundSensor);
  Serial.println(SensorData);
  if(SensorData>548){

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    if(LEDStatus==false){
        LEDStatus=true;
        digitalWrite(LED,HIGH);
    }
    else{
        LEDStatus=false;
        digitalWrite(LED,LOW);
    }
}
delay(500);
int val;
val=digitalRead(vibr_pin);
Serial.println(val);
if(val==1)
{ digitalWrite(LED_Pin,HIGH); delay(500);// digitalWrite(LED_Pin,LOW); delay(1000);
}
else
digitalWrite(LED_Pin,LOW);
// Clears the trigPin
digitalWrite(trigPin, LOW);
delayMicroseconds(2);
// Sets the trigPin on HIGH state for 10 micro seconds
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);
// Reads the echoPin, returns the sound wave travel time in microseconds
duration = pulseIn(echoPin, HIGH);
// Calculating the distance
distance= duration*0.034/2;
// Prints the distance on the Serial Monitor
Serial.print("Distance: ");
Serial.println(distance);
if (distance<=30)
{
    digitalWrite(D2, HIGH);
    digitalWrite(green,LOW);
    digitalWrite(yellow,LOW);
}
else
{
    digitalWrite(green,HIGH);
    digitalWrite(yellow,LOW);
    digitalWrite(D2, LOW);
}
}
if(distance>30&&distance<80)
{

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```
digitalWrite(green,LOW);  
digitalWrite(D2, LOW);  
digitalWrite(yellow,HIGH);  
}  
delay(1000);  
}
```