```
#include "DHT.h"
#include <SoftwareSerial.h>
SoftwareSerial mySerial(6, 7);
#include "ThingSpeak.h"
#include <ESP8266WiFi.h>

int phValue =0;
int ldr = D0;
int Buzzer = D5;
int Gas = A0;
int Motor = D2;

 DHT dht2(2,DHT11);

char ssid[] = "Kichu";   // your network SSID (name)
char pass[] = "10022003";   // your network password
int keyIndex = 0;            // your network key Index number (needed only for WEP)
WiFiClient  client;

unsigned long myChannelNumber = 2491696;
const char * myWriteAPIKey = "GR3ME71XNR229O0K";



 void setup()
 {
  Serial.begin(9600);
  mySerial.begin(9600);
  pinMode(ldr,INPUT);
  pinMode(Buzzer,OUTPUT);
  pinMode(Gas,INPUT);
  pinMode(Motor,OUTPUT);

  WiFi.mode(WIFI_STA);
  ThingSpeak.begin(client);  // Initialize ThingSpeak
  // Connect or reconnect to WiFi
  if (WiFi.status() != WL_CONNECTED)
  {
    Serial.print("Attempting to connect to SSID: ");
    Serial.println(ssid);
    while (WiFi.status() != WL_CONNECTED)
    {
      WiFi.begin(ssid, pass);
      Serial.print(".");
      delay(5000);
    }
    Serial.println("\nConnected.");
  }
 }

 void loop()
 {
  int ldr = digitalRead(D0);
  int Gas = analogRead(A0);
  String phdata = Serial.readStringUntil(':');
```

```
  if(phdata != "")
  {
    String ph =Serial.readStringUntil('$');
    phValue=ph.toFloat();
    }

  Serial.println("Temperature in C:");
  Serial.println((dht2.readTemperature( )));
  Serial.println("Humidity in C:");
  Serial.println((dht2.readHumidity()));

  Serial.print("pH:");
  Serial.println(phValue);

  Serial.print("LDR:");
  Serial.println(ldr);

  Serial.print("Gas:");
  Serial.println(Gas);

  if ((ldr == 1)||(Gas > 1024))
  {
   digitalWrite(Motor,HIGH);
   digitalWrite(Buzzer,HIGH);
  }
  else
  {
   digitalWrite(Motor,LOW);
   digitalWrite(Buzzer,LOW);
  }

   ThingSpeak.setField(1, Gas);
   ThingSpeak.setField(2, ldr);
   ThingSpeak.setField(3, phValue);
   ThingSpeak.setField(4, DHT11);

   // write to the ThingSpeak channel
   int x = ThingSpeak.writeFields(myChannelNumber, myWriteAPIKey );
   if (x == 200)
   {
     Serial.println("Channel update successful.");
   }
   else
   {
     Serial.println("Problem updating channel. HTTP error code " + String(x));
   }
  delay(100);
}
```