IOT Home Automation Using NodeMcu and ThingSpeak

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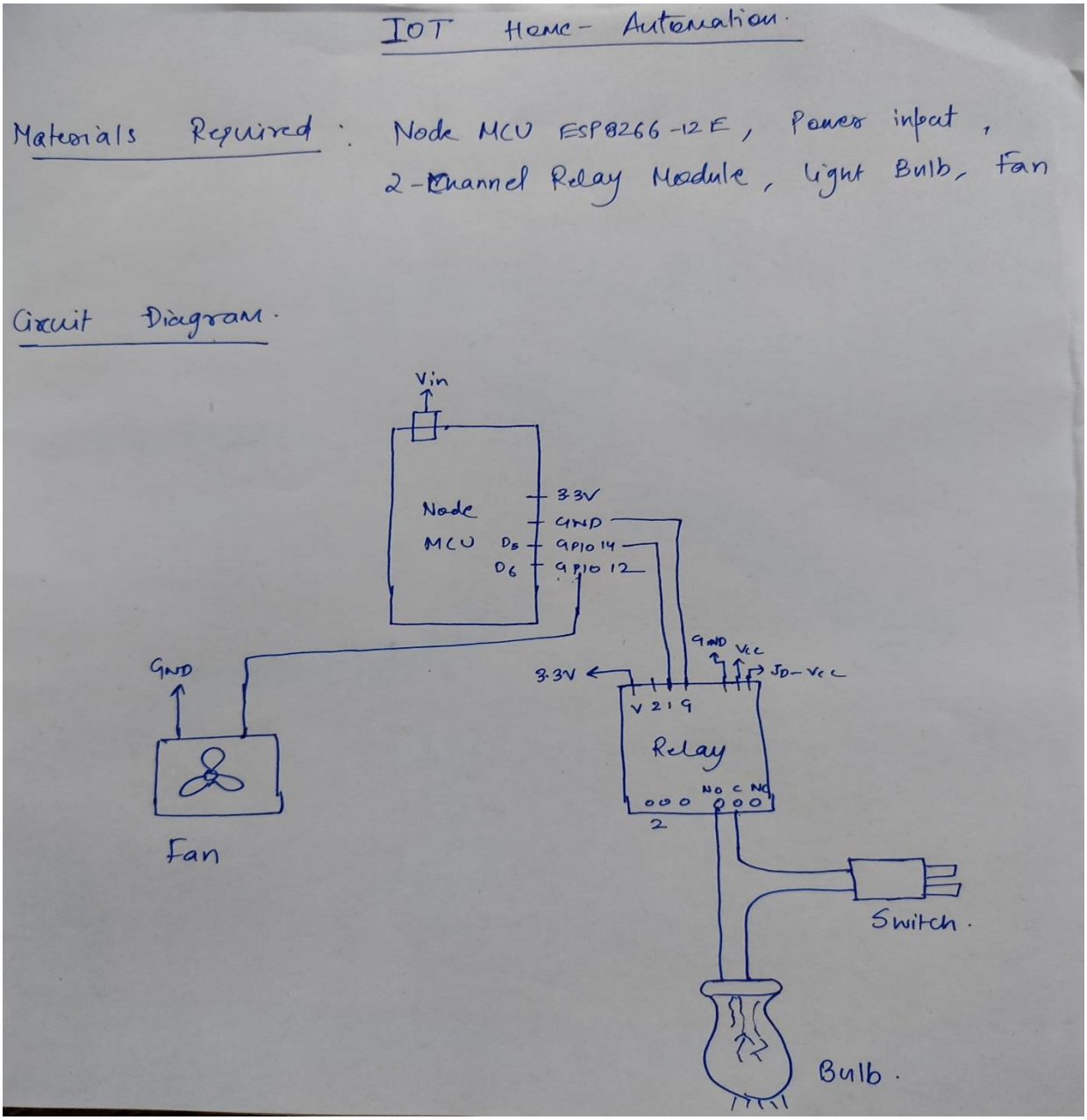


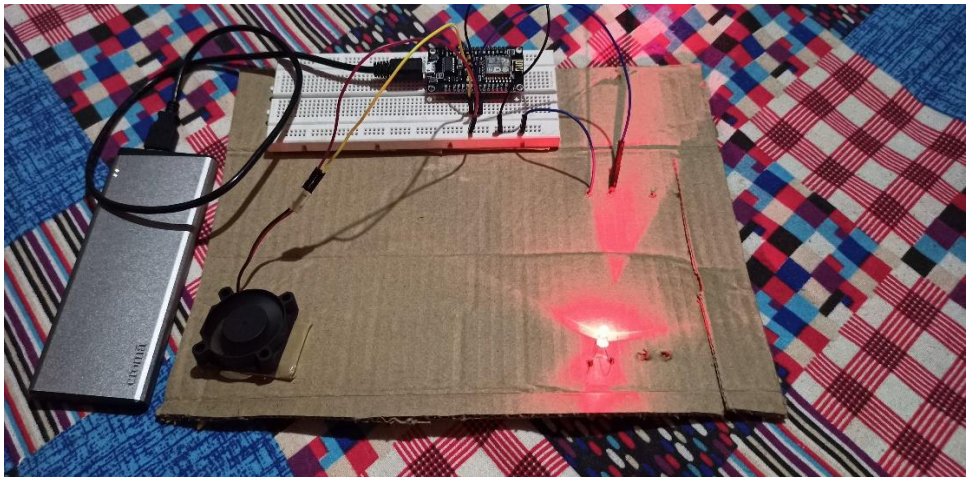
Code

```
#include <ESP8266WiFi.h>
#include <ThingSpeak.h>


String ssid     = "A-14";
String password = "aviral18";

String server = "api.thingspeak.com";
unsigned long channelID = 1117707;
char* readAPIKey = "ZY1HSMTEDR32J820";
unsigned int dataFieldOne = 1;
unsigned int dataFieldTwo = 2;

int Light = 14;
int Fan = 12;
int val1;
int val2;

WiFiClient client;


void setup() {
  // put your setup code here, to run once:

  Serial.begin(115200);
  Serial.println("Start");
  connectWiFi();

  pinMode(Light,OUTPUT);
  pinMode(Fan,OUTPUT);

}

void loop() {
  // put your main code here, to run repeatedly:
delay(2000);
  Serial.println("Waiting...");

  val1= readTSData( channelID, dataFieldOne);
  val2= readTSData( channelID, dataFieldTwo);

  if(val1 == 2 && val2 == 2){
      digitalWrite(Light,HIGH);
      digitalWrite(Fan,HIGH);
    }
  else if( val1 == 1 && val2 == 1){
     digitalWrite(Light,LOW);
     digitalWrite(Fan,LOW);
  }
  else if( val1 == 1 && val2 == 2){
    digitalWrite(Light,LOW);
     digitalWrite(Fan,HIGH);
```

```
  }
  else if( val1 == 2 && val2 == 1){
    digitalWrite(Light,HIGH);
     digitalWrite(Fan,LOW);
  }

delay(1000);
}

int readTSData( long TSChannel, unsigned int TSField ) {

  int data =  ThingSpeak.readIntField( TSChannel, TSField, readAPIKey );
  Serial.println( " Data read from ThingSpeak: " + TSField + String(
data, 9 ) );
  return data;

}

int connectWiFi() {
  WiFi.begin( ssid, password );
  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
    Serial.print(".");
  }

  Serial.println( "Connected" );
  ThingSpeak.begin( client );
}
```

Model

Note : My Relay was Faulty and not working so I have to deal without it . So instead with Light Bulb I made Model with Led



Video Attached with Mail