smart medicine reminder

For elderly people

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*ABSTRACT:* Our project’s main aim is to make a Smart Medicine Reminder for the users suffering from problem to forget to take medicines on proper time for certain diseases. *MODULES USED:*

1. NODE MCU-DEV-1.0: We are using NODE MCU and it has 32 bit Microcontroller Unit,4MB Flash memory,10 bit Analogy Digital Circuit,13 General Input and Output. which works as the interference for total project.

2. RTC DS1307: A Real Time Clock is a computer clock

often in the form that keeps track of the current time. RTCs are present in almost any electronic device which needs to keep accurate time.

|  |  |  |  |
| --- | --- | --- | --- |
| *S.NO* | *NODE MCU* | *BUZZER* | *RTC DS 1307* |
| *1.* | *3.3V* | *-* | *VCC* |
| *2.* | *Ground* | *-* | *Ground* |
| *3.* | *D2* | *-* | *SDA* |
| *4.* | *D1* | *-* | *SCL* |
| *5.* | *D5* | *Positive* | *-* |
| *6.* | *Ground* | *Negative* | *-* |

*WORKING:* Smart Medicine Reminder the name itself tells about its work .It is used as an reminder for the users to take medicines without missing their course. And this project works like -when the time implied in RTC module is equal to the clock time the buzzer attached to the RTC module ,where the time stores in EEPROM , which are connected through the interference of NODE MCU. when the buzzer makes sound the user can get to know that it is time to take medicine. And

the software used to this project is ARDUINO .

*ADVANTAGES:*

1. Cost Efficient.
2. User Friendly.
3. Provide Health and Comfort.
4. Easy to use and maintain.

*CODE****:***

#include <Wire.h>

#include <RtcDS3231.h>

#include <ESP8266WiFi.h>

//#include <ESP8266WebServer.h>

#include <PubSubClient.h>

RtcDS3231<TwoWire> Rtc(Wire);

//ESP8266WebServer server(80);

const char\* ssid = "moto e5 plus 1371";

const char\* password = "12345678";

#define ORG "56fc1a"

#define DEVICE\_TYPE "newdevice"

#define DEVICE\_ID "new"

#define TOKEN "123456789"

//-------- Customise the above values --------

char server[] = ORG ".messaging.internetofthings.ibmcloud.com";

char topic[] = "iot-2/evt/sensorData/fmt/json";

char authMethod[] = "use-token-auth";

char token[] = TOKEN;

char clientId[] = "d:" ORG ":" DEVICE\_TYPE ":" DEVICE\_ID;

WiFiClient wifiClient;

PubSubClient client(server, 1883,wifiClient);

int hh=0,mm=0;

void setup ()

{

int frequency=1000; //Specified in Hz

int buzzPin=D5;

int timeOn=1000; //specified in milliseconds

int timeOff=1000; //specified in millisecods

Serial.begin(115200);

Rtc.Begin();

RtcDateTime compiled = RtcDateTime(\_\_DATE\_\_, \_\_TIME\_\_);

if (!Rtc.IsDateTimeValid())

{

Serial.println("RTC lost confidence in the DateTime!");

Rtc.SetDateTime(compiled);

}

RtcDateTime now = Rtc.GetDateTime();

Rtc.Enable32kHzPin(false);

Rtc.SetSquareWavePin(DS3231SquareWavePin\_ModeNone);

Serial.print("Connecting to ");

Serial.print(ssid);

WiFi.begin(ssid, password); //Connect to the WiFi network

while (WiFi.status() != WL\_CONNECTED) { //Wait for connection

delay(500);

Serial.println("Waiting to connect...");

}

Serial.println("");

Serial.print("IP address: ");

Serial.println(WiFi.localIP()); //Print the local IP

//server.on("/", handle\_index);

//server.begin(); //Start the server

}

void loop ()

{

//server.handleClient(); //Handling of incoming requests

RtcDateTime now = Rtc.GetDateTime();

//Print RTC time to Serial Monitor

noTone(D5);

delay(3000);

tone(D5,4000);

Serial.print("Date:");

Serial.println(now.Day(), DEC);

int a = now.Year();

Serial.print(a);

Serial.print('/');

Serial.print(now.Month(), DEC);

int b = now.Month();

Serial.print(b);

Serial.print('/');

Serial.print(now.Year(), DEC);

int c = now.Day();

Serial.print(c);

Serial.print(" Time:");

Serial.print(now.Hour(), DEC);

int d = now.Hour();

Serial.print(d);

Serial.print(':');

Serial.print(now.Minute(), DEC);

int e = now.Minute();

Serial.print(e);

Serial.print(':');

Serial.print(now.Second(), DEC);

int f = now.Second();

Serial.print(f);

delay(1000); // one second

PublishData(a,b,c,d,e,f);

delay(1000);

}

//void handle\_index() {

// server.send(200, "text/plain", "This is an index page.");

//}

void PublishData(int a, int b, int c, int d, int e, int f){

if (!!!client.connected()) {

Serial.print("Reconnecting client to ");

Serial.println(server);

while (!!!client.connect(clientId, authMethod, token)) {

Serial.print(".");

delay(500);

}

Serial.println();

}

String payload = "{\"d\":{\"Date\":";

payload += a;

payload +="/";

payload += b;

payload +="/";

payload += c;

payload +="," "\"hours\":";

payload += d;

payload +=",” “\”min\”:”;

payload += e;

payload += "}}";

Serial.print("Sending payload: ");

Serial.println(payload);

if (client.publish(topic, (char\*) payload.c\_str())) {

Serial.println("Publish ok");

} else {

Serial.println("Publish failed”);

*CONCLUSION:*

The goal of our project is to provide healthy and tension free life to those users who are taking regularly pills and to provide this product at affordable cost also.