



COMPONENTS:-

1. NODE MCU
2. IR SENSORS
3. RFID CARD READER
4. 16*2 LCD DISPLAY
5. SERVO MOTOR

CODE:-

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

```
#include <WiFiClientSecure.h>
```

```
#define WIFI_SSID "project"      // WIFI SSID here
```

```
#define WIFI_PASSWORD "1234567890"  // WIFI password here
```

```
const char* host = "script.google.com";
```

```
const int httpsPort = 443;
```

```
//-----
```

```
WiFiClientSecure client; //--> Create a WiFiClientSecure object.
```

```
String GAS_ID = "AKfycby-dirIJ12SoQtS5MesKEV07L7IWYpi6jbtSiIEPIZC2B9PH1d21QSGMs2IMneUuzDC";
```

```
//--> spreadsheet script ID
```

```
#include <Wire.h>
```

```
#include <LiquidCrystal_I2C.h>
```

```
LiquidCrystal_I2C lcd(0x27, 16, 2);
```

```
#include <Servo.h>
```

```
Servo s;
```

```
#include <SPI.h>
```

```
#include <MFRC522.h>
```

```
#define SS_PIN D4
```

```
#define RST_PIN D3

MFRC522 mfrc522(SS_PIN, RST_PIN);

int o = 0;

int o1 = 20;

String content= "";

byte letter;

int sen1 = 0;

int sen2 = 0;

int psg = 0;

void setup() {

  Serial.begin(9600); // Initiate a serial communication

  SPI.begin(); // Initiate SPI bus

  mfrc522.PCD_Init(); // Initiate MFRC522

  Serial.println("Approximate your card to the reader...");

  Serial.println();

  s.attach(D0);

  s.write(90);

  lcd.begin(); // initializing the LCD

  lcd.backlight();

  WiFi.mode(WIFI_STA);

  WiFi.begin(WIFI_SSID, WIFI_PASSWORD); //try to connect with wifi
```

```

//Serial.print("Connecting to ");

//Serial.print(WIFI_SSID);

while (WiFi.status() != WL_CONNECTED)

{ //Serial.print(".");

  lcd.clear();

  lcd.print("Connecting ...");

  delay(500); }

client.setInsecure();

pinMode(D8,INPUT);

}

void loop() {

sen1 = digitalRead(D8);

sen2 = analogRead(A0);

if(sen1 == HIGH){psg++; delay(500);}

if(sen2 > 500) {psg--; delay(500);}

if(psg == -1){psg = 0;}

if(psg < 10){

if (o == 0){

  lcd.clear();

  lcd.print("Scan Ur Card");

```

```
lcd.setCursor(0,1);

lcd.print("PSG CNT: ");

lcd.print(psg);

read_card();

if (content.substring(1) == "B3 11 CE 04" || content.substring(1) == "DC 4C D7 6D" ||
content.substring(1) == "0A EE 7A 19") //change here the UID of the card/cards that you want to give
access

{

  lcd.clear();

  lcd.print("SEL STATION");

  o = 1;

  content = "";

  delay(1000);

}

}

if(o == 1)

{

  o1--;

  read_card();

  lcd.clear();

  lcd.setCursor(0,0);

  lcd.print("CBS STATION");

  lcd.setCursor(0,1);

  lcd.print("Rem Time:");

  lcd.print(o1);

  delay(300);
```

```

if(o1 == 0)

{

    o = 2;o1 = 20;

}

    if (content.substring(1) == "B3 11 CE 04" || content.substring(1) == "DC 4C D7 6D" ||
content.substring(1) == "0A EE 7A 19") //change here the UID of the card/cards that you want to give
access

{

    lcd.clear();

    lcd.print("CBS Selected.");

    lcd.setCursor(0,1);

    lcd.print("Fair 20 Rs");

    o = 0;

    o1 = 20;

    delay(1000);

    s.write(0);

    delay(3000);

    s.write(90);

    delay(1000);

    String card = content.substring(1);

    content = "";

    card.replace(' ','-');

    sendData(card, "CBS","20RS");

    card="";

}

```

```

}

if(o == 2)
{
    o1--;
    read_card();
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("KRANTI CHOWK");
    lcd.setCursor(0,1);
    lcd.print("Rem Time:");
    lcd.print(o1);
    delay(300);
    if(o1 == 0)
    {
        o = 3;o1 = 20;
    }

    if (content.substring(1) == "B3 11 CE 04" || content.substring(1) == "DC 4C D7 6D" ||
content.substring(1) == "0A EE 7A 19") //change here the UID of the card/cards that you want to give
access

    {
        lcd.clear();

        lcd.print("K.C. Selected.");

        lcd.setCursor(0,1);

        lcd.print("Fair 40 Rs");

        o = 0;

        o1 = 20;
    }

```

```
delay(1000);

s.write(0);

delay(1000);

String card1 = content.substring(1);

content = "";

card1.replace(' ','-');

sendData(card1, "KRANTI_CHOWK", "40RS");

card1="";

}

}

if(o == 3)

{

o1--;

read_card();

lcd.clear();

lcd.setCursor(0,0);

lcd.print("BABA PETROL P.");

lcd.setCursor(0,1);

lcd.print("Rem Time:");

lcd.print(o1);

delay(300);

if(o1 == 0)

{

o = 0;o1 = 20;

}
```



```
    if (content.substring(1) == "B3 11 CE 04" || content.substring(1) == "DC 4C D7 6D" ||  
content.substring(1) == "0A EE 7A 19") //change here the UID of the card/cards that you want to give  
access
```

```
{  
  
    lcd.clear();  
  
    lcd.print("BPP Selected.");  
  
    lcd.setCursor(0,1);  
  
    lcd.print("Fair 60 Rs");  
  
    o = 0;  
  
    o1 = 20;  
  
    delay(1000);  
  
    s.write(0);  
  
    delay(3000);  
  
    s.write(90);  
  
    delay(1000);  
  
    String card2 = content.substring(1);  
  
    content = "";  
  
    card2.replace(' ','-');  
  
    sendData(card2, "BABA_PETROL_PUMP", "60RS");  
  
    card2="";  
  
}  
  
}  
  
delay(100);  
  
}  
  
else  
  
{
```

```

    lcd.clear();

    lcd.print("bus if full");

    delay(200);
}

}

void read_card()
{
    if ( ! mfrc522.PICC_IsNewCardPresent())
    {
        return;
    }

    // Select one of the cards
    if ( ! mfrc522.PICC_ReadCardSerial())
    {
        return;
    }

    for (byte i = 0; i < mfrc522.uid.size; i++)
    {
        Serial.print(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " ");
        Serial.print(mfrc522.uid.uidByte[i], HEX);

        content.concat(String(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " "));
        content.concat(String(mfrc522.uid.uidByte[i], HEX));
    }
}

```

```
Serial.println();

Serial.print("Message : ");

content.toUpperCase();

}
```

```
void sendData() {

    Serial.println("=====");

    Serial.print("connecting to ");

    Serial.println(host);
```

```
//-----Connect to Google host
```

```
if (!client.connect(host, httpsPort)) {

    return;

}

else

{

    Serial.println("Connected !!!");

}
```

```
String url = "/macros/s/" + GAS_ID + "/exec?value1=" + card + "&value2=" + station+ "&value3=" + fair;

Serial.print("requesting URL: ");

Serial.println(url);
```

```
client.print(String("GET ") + url + " HTTP/1.1\r\n" +

    "Host: " + host + "\r\n" +
```

```
"User-Agent: BuildFailureDetectorESP8266\r\n" +
```

```
"Connection: close\r\n\r\n");
```

```
Serial.println("request sent");
```

```
//-----
```

```
//-----Checking whether the data was sent successfully or not
```

```
while (client.connected()) {
```

```
    String line = client.readStringUntil('\n');
```

```
    if (line == "\r") {
```

```
        Serial.println("headers received");
```

```
        break;
```

```
    }
```

```
}
```

```
String line = client.readStringUntil('\n');
```

```
if (line.startsWith("{\"state\":\"success\"}")) {
```

```
    Serial.println("esp8266/Arduino CI successfull!");
```

```
} else {
```

```
    Serial.println("esp8266/Arduino CI has failed");
```

```
}
```

```
Serial.print("reply was : ");
```

```
Serial.println(line);
```

```
Serial.println("closing connection");
```

```
Serial.println("=====");
```

```
Serial.println();
```

//-----

}