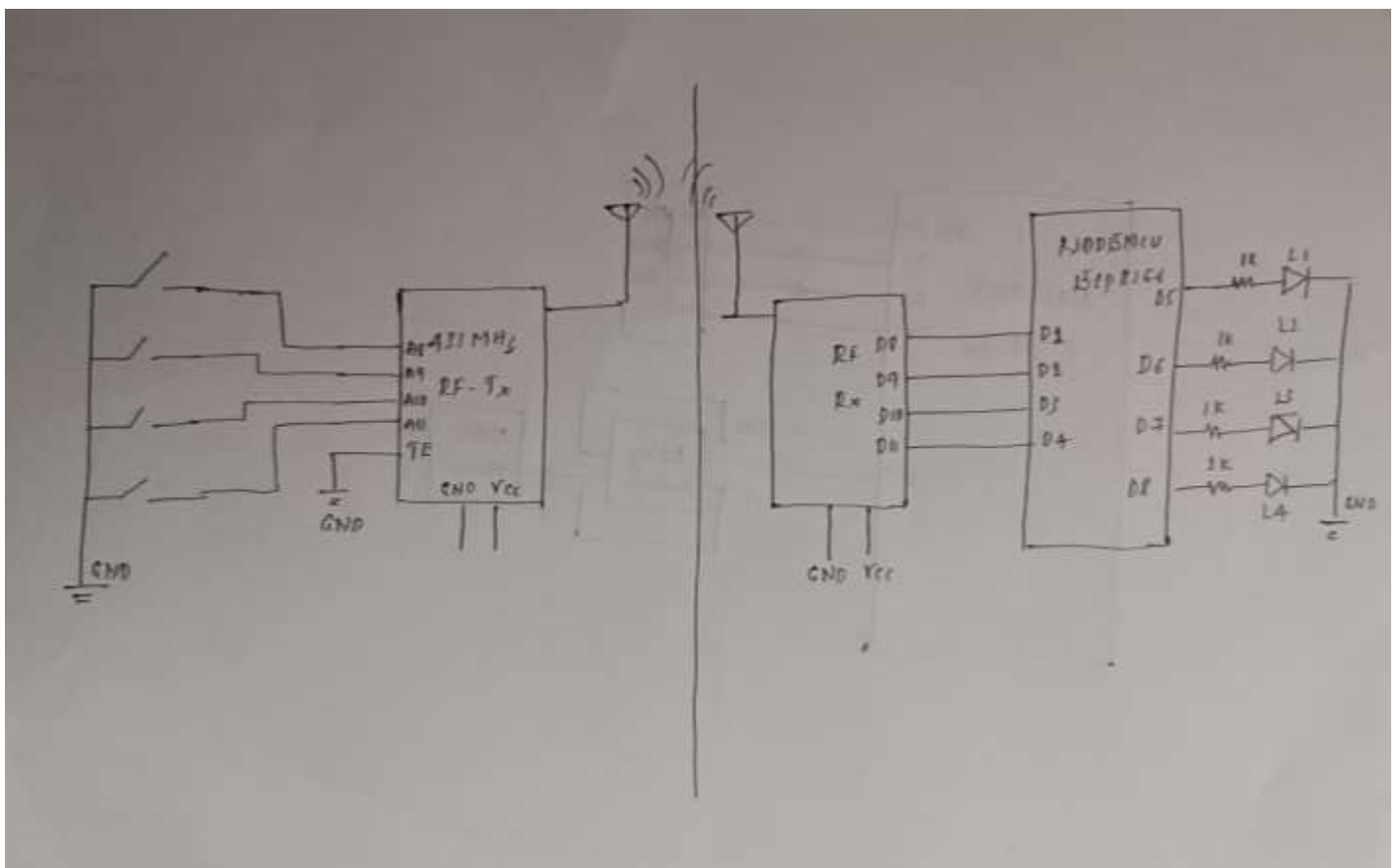# 9. Device Status Monitoring By Using Nearfield Communication (NFC)

REQUIREMENTS:

   A. **NODEMCU ESP8266 + USB Type-A To USB Micro**
   B. **RF Transmitter + 4 switches**
   C. **RF Receiver + 4 LEDs**
   D. **Arduino IDE**
   E. **Blynk IoT Cloud**
   F. **Blynk IoT App.**

BLOCK DIAGRAM:

CODE:

```
#define BLYNK_TEMPLATE_ID "TMPLrcn6_X38"
#define BLYNK_DEVICE_NAME "BTESP"
#define BLYNK_AUTH_TOKEN "TYU5k00UTq9PwldnU2ICXG-csyjGHKZs"
#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
```

```cpp
char auth[] = BLYNK_AUTH_TOKEN;
char ssid[] = "TVN";
char pass[] = "ndtv@1234";

int r1=D1;
int r2=D2;
int r3=D3;
int r4=D4;

int led1=D4;
int led2=D5;
int led3=D6;
int led4=D7;

void receiver()
{
  Blynk.virtualWrite(V1,!digitalRead(r1));
  Blynk.virtualWrite(V2,!digitalRead(r2));
  Blynk.virtualWrite(V3,!digitalRead(r3));
  Blynk.virtualWrite(V4,!digitalRead(r4));
}

void setup()
{
  pinMode(led1, OUTPUT);
  pinMode(led2, OUTPUT);
  pinMode(led3, OUTPUT);
  pinMode(led4, OUTPUT);
  Serial.begin(9600);
  Blynk.begin(auth, ssid, pass);
}

void loop()
{
  Blynk.run();
  receiver();
  digitalWrite(led1,!digitalRead(r1));
  digitalWrite(led2,!digitalRead(r2));
  digitalWrite(led3,!digitalRead(r3));
```
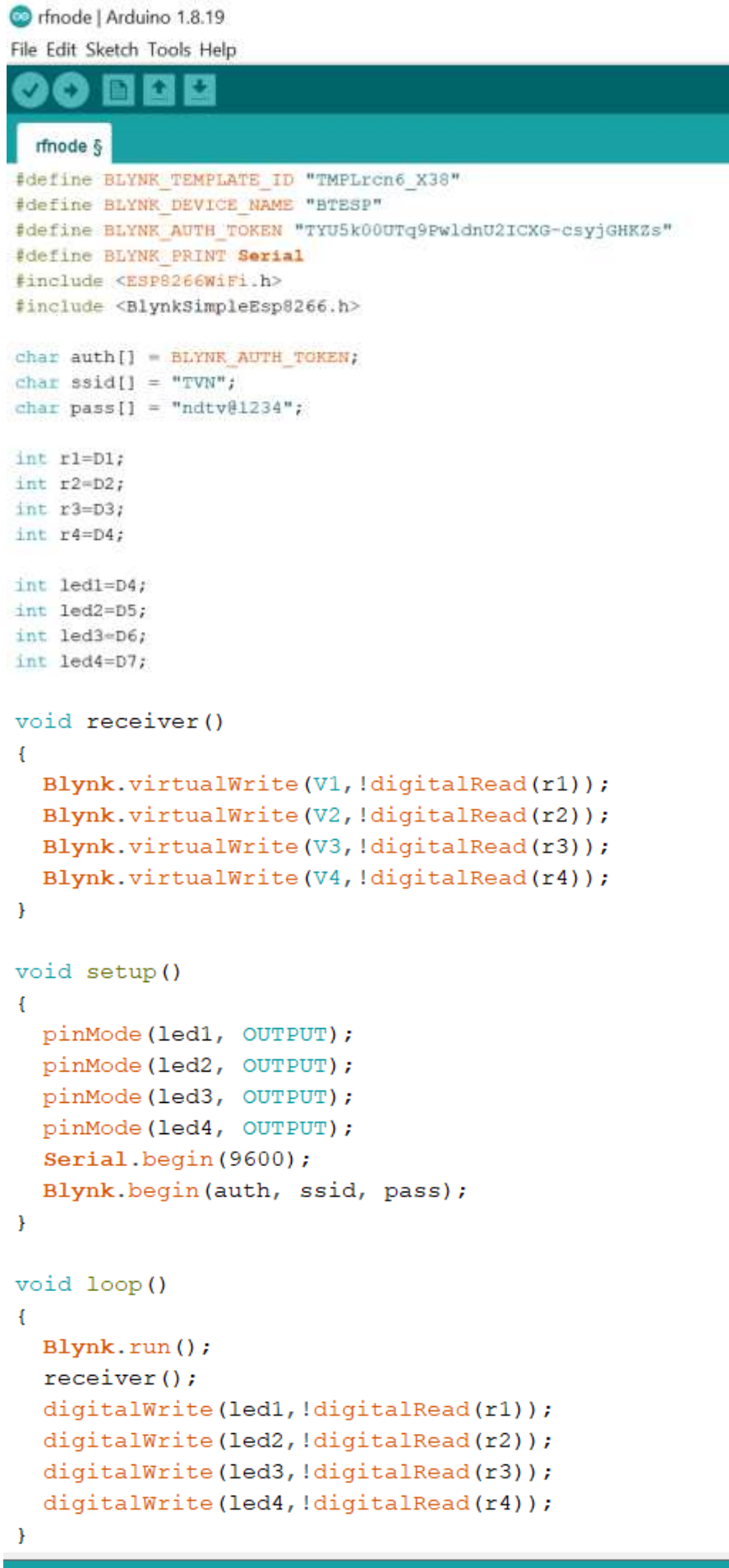
```
      digitalWrite(led4,!digitalRead(r4));
}
```

rfnode §

```
#define BLYNK_TEMPLATE_ID "TMPLrcn6_X38"
#define BLYNK_DEVICE_NAME "BTESP"
#define BLYNK_AUTH_TOKEN "TYU5k00UTq9PwldnU2ICXG-csyjGHKZs"
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int r3=D3;
int r4=D4;

int led1=D4;
int led2=D5;
int led3=D6;
int led4=D7;

void receiver()
{
  Blynk.virtualWrite(V1,!digitalRead(r1));
  Blynk.virtualWrite(V2,!digitalRead(r2));
  Blynk.virtualWrite(V3,!digitalRead(r3));
  Blynk.virtualWrite(V4,!digitalRead(r4));
}

void setup()
{
  pinMode(led1, OUTPUT);
  pinMode(led2, OUTPUT);
  pinMode(led3, OUTPUT);
  pinMode(led4, OUTPUT);
  Serial.begin(9600);
  Blynk.begin(auth, ssid, pass);
}

void loop()
{
  Blynk.run();
  receiver();
  digitalWrite(led1,!digitalRead(r1));
  digitalWrite(led2,!digitalRead(r2));
  digitalWrite(led3,!digitalRead(r3));
  digitalWrite(led4,!digitalRead(r4));
}
```

← → C 🔒 blynk.cloud/dashboard/105235/product/198362/datastreams?save=true

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BTESP

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Info Metadata **Datastreams** Events Automations Web Dashboard Mobile Dashboard

Q Search datastream

Id	Name	Alias	Color	Pin	Data Type	Units	Is Raw	Min	Max	Decimals
1	LED1	LED1	🟪	V1	Integer		false	0	1	—
2	LED2	LED2	🟪	V2	Integer		false	0	1	—
3	LED3	LED3	🟦	V3	Integer		false	0	1	—
4	LED4	LED4	🟨	V4	Integer		false	0	1	—

Region: blr1 Privacy Policy

22°C Cloudy

← → C 🔒 blynk.cloud/dashboard/105235/product/198362/dashboard?save=true

G http://www.google... G abs system exampl... @ @ Subject-verb agree... @ Textual Notes - Su... G accounts.google.com ▣ SystemVerilog Mat... E Introducing TI MSP... » Other bookmarks

BTESP

Duplicate | Edit

Info Metadata Datastreams Events Automations **Web Dashboard** Mobile Dashboard

ⓘ This is how the device page will look like for actual devices.

Device name Online
👤 Device Owner 🏢 Company Name
Tag in ⊘

Dashboard

Last Hour 6 Hours 1 Day 1 Week 1 Month 3 Months Custom

LE... (V1) LE... (V2) LE... (V3) LE... (V4)
🟣 🟣 🔵 🟡

Region: blr1 Privacy Policy

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