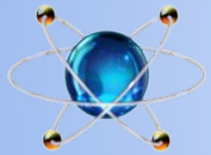
Voice Controlled Home Automation System

Software Used ?

IFTTT



PROTEUS

Blynk

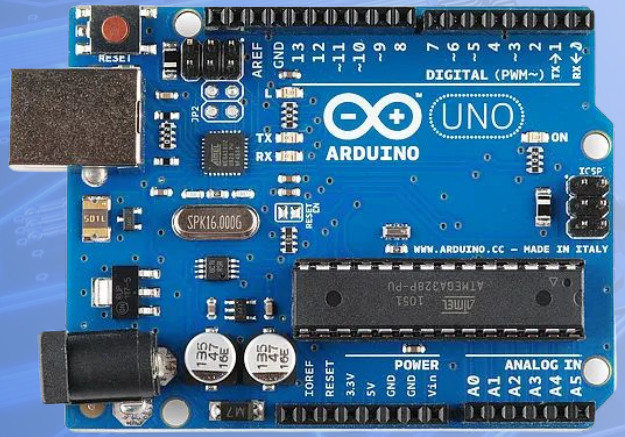
VSPE

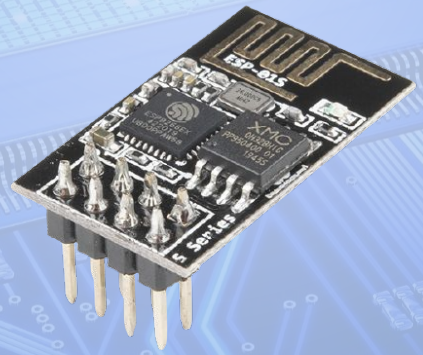
Component Used ?

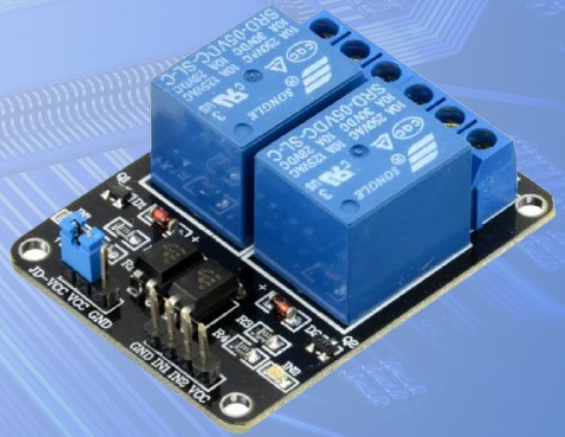
Arduino uno

WIFI Shield

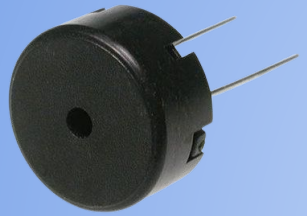
Relay







Buzzer



LDR

Diode

Resistor

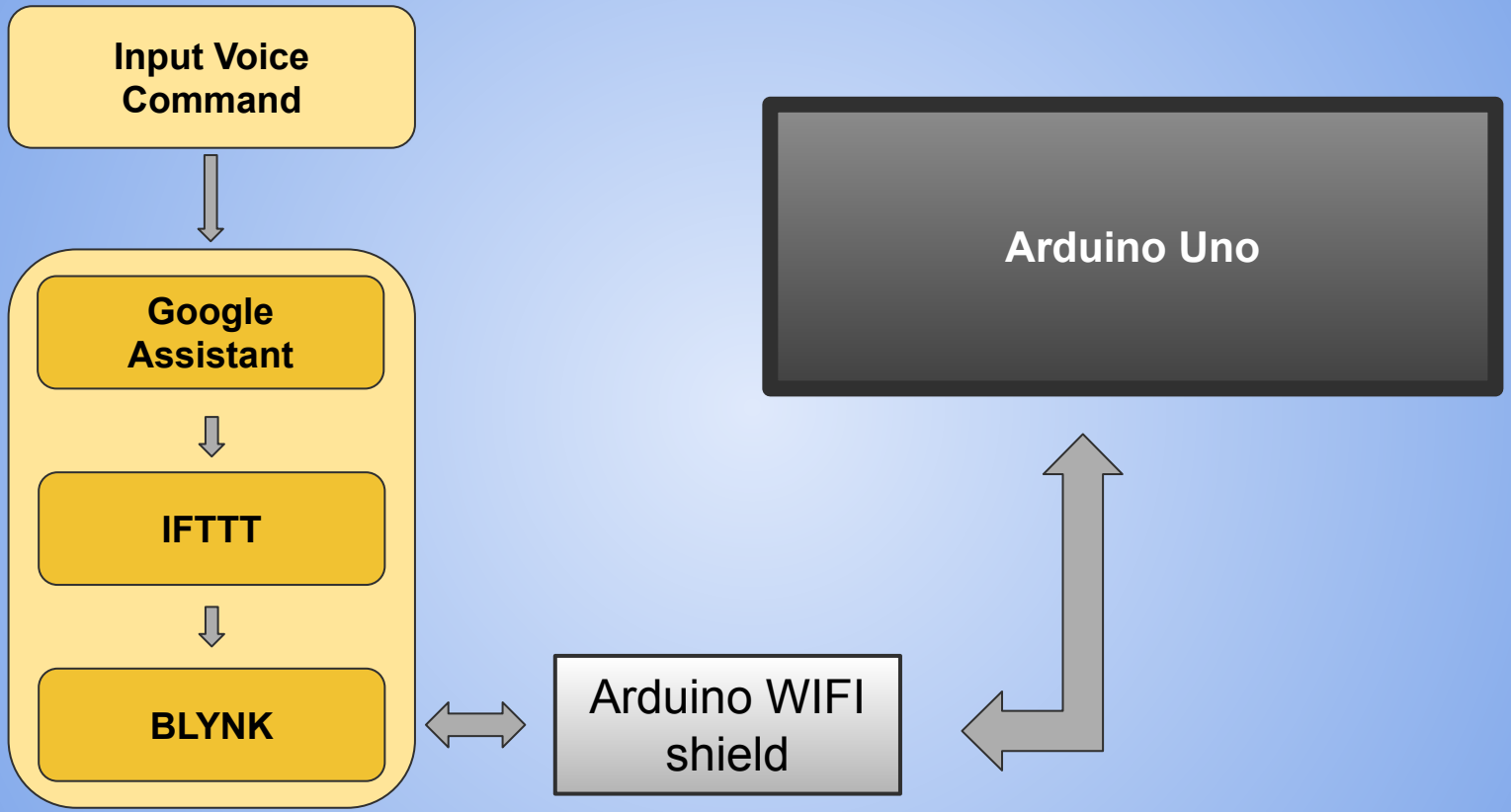
Transistor

Fan

Bulb

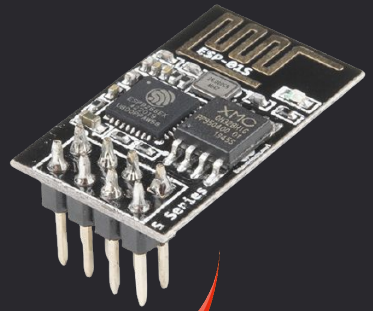
LED

Voice controlled Home Automation using Google Assistant, IFTTT and Blynk


Input Voice Command
Google Assistant
IFTTT
BLYNK
Arduino WIFI shield
Arduino Uno

Home Automation using Blynk App

WIFI Module



Blynk Server

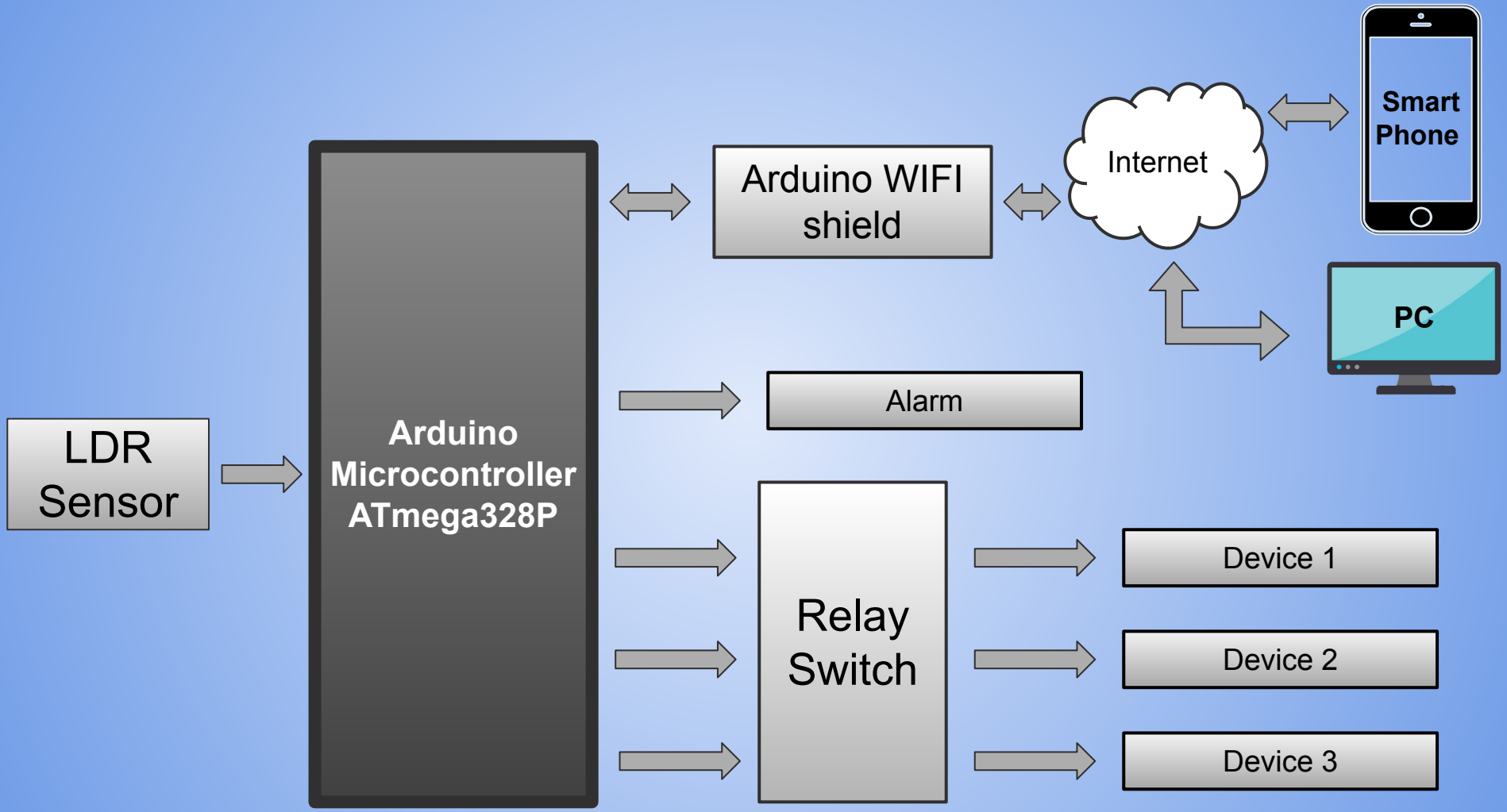
No laptop required

Blynk app

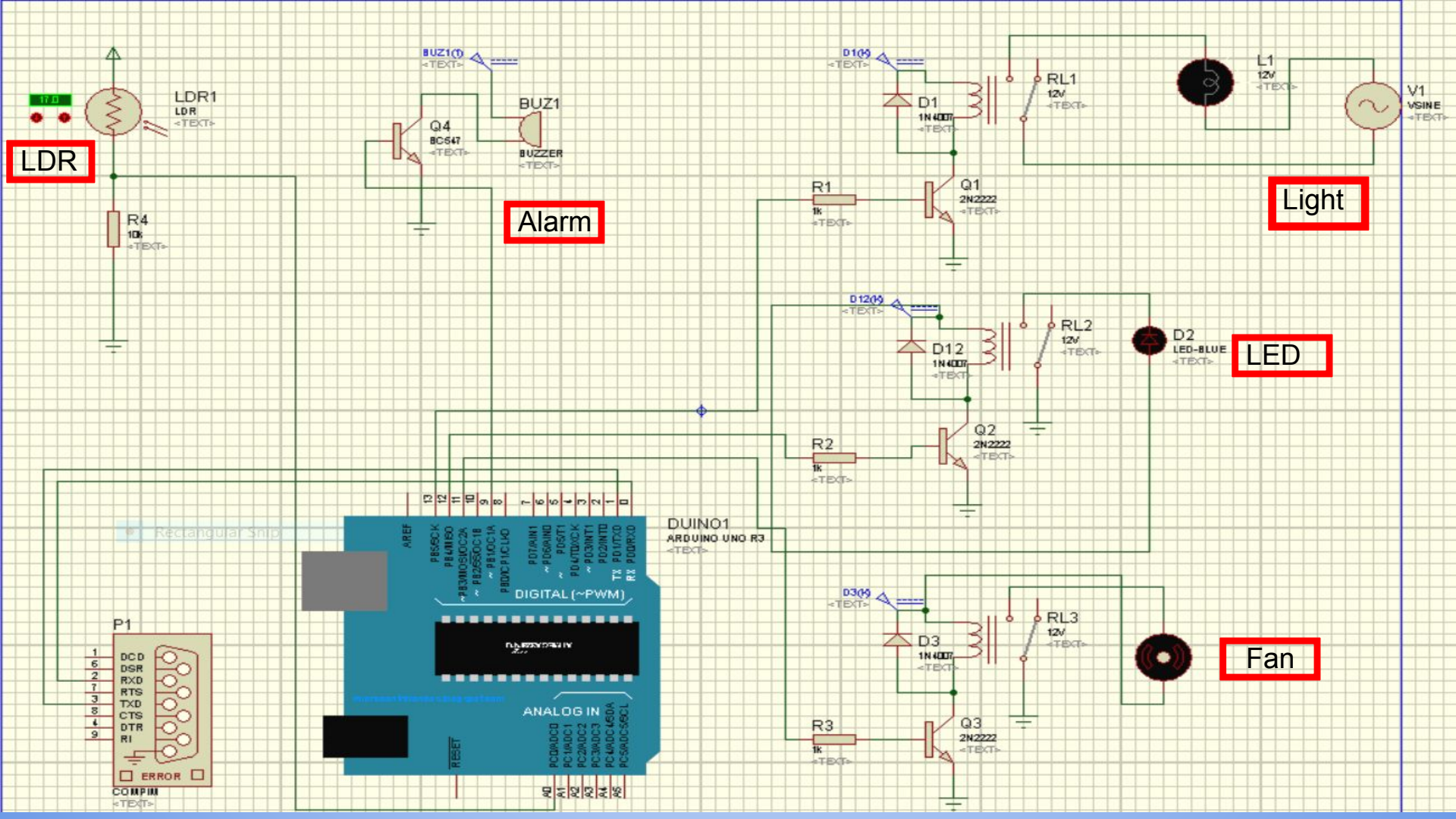
Blynk Libraries

Internet Access of your choice
Ethernet, Wi-Fi, 3G ...

Block Diagram


LDR Sensor
Arduino Microcontroller ATmega328P
Arduino WIFI shield
Internet
Smart Phone
PC
Alarm
Relay Switch
Device 1
Device 2
Device 3

Circuit Diagram


LDR
LDR1
R4
Alarm
BUZ1
Q4
BUZZER
Light
RL1
D1
Q1
R1
L1
V1
LED
D2
RL2
D12
Q2
R2
Fan
RL3
D3
Q3
R3
DUINO1
ARDUINO UNO R3
DIGITAL (~PWM)
ANALOG IN
P1
COMPIM
ERROR

Arduino Code

Arduino Code

```
#include <BlynkSimpleStream.h>
int sensorPin = A0;
int ledPin = 9;
int sensorValue = 1;

 char auth[] =
"SZN_5JK5GVRNDfFOVo4T0UmPRm_X76Ar";

 void setup()
 {
   pinMode(ledPin, OUTPUT);
   Serial.begin(9600);
   Blynk.begin(auth, Serial);
   pinMode(11, OUTPUT);
   pinMode(12, OUTPUT);
   pinMode(13, OUTPUT);
 }
```

```
 BLYNK_WRITE(V1) //Button Widget is writing to pin V1
{
  int pinData = param.asInt();
  if(pinData==1){
    digitalWrite(11, HIGH);
  }else{
    digitalWrite(11, LOW);
  }
}
 void loop()
 {
  sensorValue = analogRead(sensorPin);
  // turn the ledPin on
  if (sensorValue<=450)
  {
    digitalWrite(ledPin, HIGH);
  // stop the program for <sensorValue> milliseconds:
  }
  else
  {
    digitalWrite(ledPin, LOW);
  // stop the program for for <sensorValue> milliseconds:
  }
   Blynk.run();
 }
```

ADVANTAGES

- Control home appliances from anywhere in the world
- Easy to operate
- Android compatible smartphone app
- You will receive a email or sms for any activity
- Saves electricity

DISADVANTAGES

- Reliability
- System crashes due to any damage in the interconnection
- Costly

CONCLUSION AND FUTURE WORKS

This project has introduced a home management system. Our prototypical system is applicable to real-time home security, automation, monitoring, and controlling of remote systems.

This implementation provides an intelligent, comfortable, and energy-efficient home automation system. It also assists the old and differently abled persons to control the appliances in their home in a better and easier way.