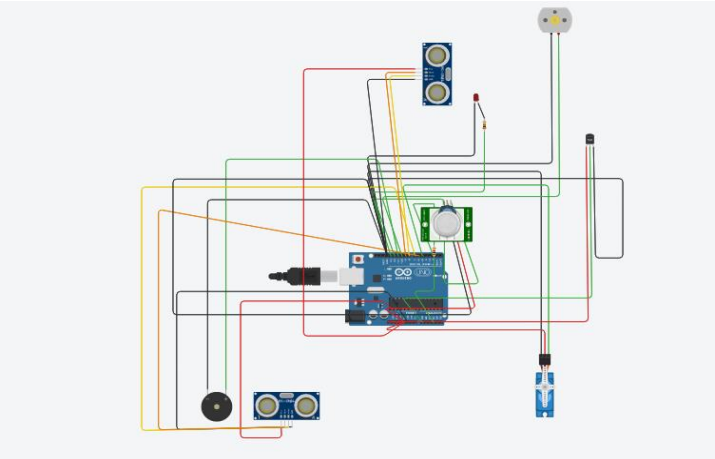
SMART HOME AUTOMATION

CIRCUIT DIAGRAM:



CODE:

```
// C++ code
//
#include<Servo.h>

#define LED 13
#define FAN 10
#define TEMP A0
#define BUZZER 11
#define PIR 12
#define DOOR 5
#define TRIGGER 6
#define ECHO 7
#define TRIGGER1 9
#define ECHO1 8

Servo S;

void setup()
```

```
{
 Serial.begin(9600);
 pinMode(LED,OUTPUT);
 pinMode(FAN,OUTPUT);
 pinMode(BUZZER,OUTPUT);
 pinMode(PIR,INPUT);
 pinMode(DOOR,OUTPUT);
 pinMode(TRIGGER,OUTPUT);
 pinMode(ECHO,INPUT);
 pinMode(TRIGGER1,OUTPUT);
 pinMode(ECHO1,INPUT);
 S.attach(DOOR);
 S.write(90);



}

void loop()
{
 //Car Garage
 digitalWrite(TRIGGER,0);
 digitalWrite(TRIGGER,1);
 delayMicroseconds(10);
 digitalWrite(TRIGGER,0);
 float d = pulseIn(ECHO,1);
 float l = (d*0.0343)/2;
 int m = map(l,0,330,0,255);

 if(m<=50)
 {
  tone(BUZZER,294,700);
  delay(1000);
  noTone(BUZZER);
  Serial.println("Buzzer horn when Car parked");
 }
 else
```

```
 analogWrite(BUZZER,0);



//Door Open
int z = digitalRead(PIR);
delay(1000);
if(z==1)
{
 S.write(0);
 Serial.println("Door Opened");
 delay(3000);
 S.write(90);
 delay(1000);
}
 else
 {
 S.write(90);
 delay(1000);
 }
digitalWrite(TRIGGER1,0);
digitalWrite(TRIGGER1,1);
delayMicroseconds(10);
digitalWrite(TRIGGER1,0);
float d1 = pulseIn(ECHO1,1);
float l1 = (d1*0.0343)/2;
if(l1<330)
 {
   //IN ROOM
 Serial.println("Person in Room");
 digitalWrite(LED,1);
 double a = analogRead(TEMP);
 double t = (((a/1024)*5)-0.5)*100;
 int s = map(t,-40,120,0,255);
 if(s>100)
   analogWrite(FAN,s);
   delay(2000);
```

```
  }
  else
  {
    digitalWrite(LED,0);
    analogWrite(FAN,0);
  }
}
```