

**TEAM ID:** PNT2022TMID14654

**NAME:** KARTHIKEYAN.M  
**ROLL NO:** 111619106060

**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
```

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```
{
  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);
}
}
```

**OUTPUT:**

