

ASSIGNMENT 1 - HOME AUTOMATION

// C++ code

```
void setup()
{
  Serial.begin(9600); //initialize serial communication
  pinMode(A0, INPUT); //LDR
  pinMode(2, INPUT); //PIR sensor
  pinMode(A1, INPUT); //Gas sensor
  pinMode(13, OUTPUT); //led
  pinMode(8, OUTPUT); //buzzer
  pinMode(3, OUTPUT); //led
}

void loop()
{
  //LDR sensor
  int value=analogRead(A0);
  if(value>500)
  {
    digitalWrite(13, HIGH);
    Serial.print("BULB ON");
  }
  else
  {
    digitalWrite(13, LOW);
    Serial.print("BULB OFF");
  }
  delay(300);
  //Gas sensor
  int val1=analogRead(A1);
```

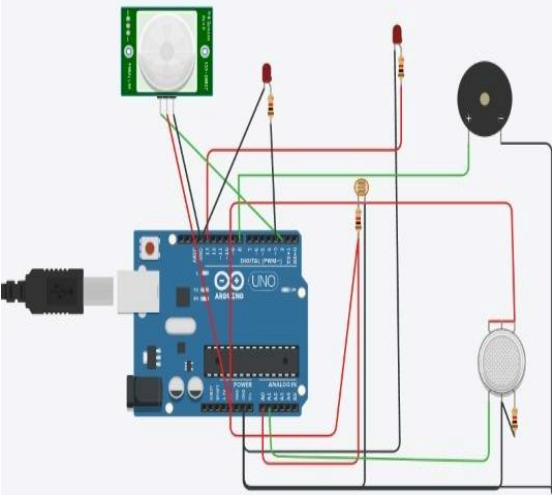
```
if(val1>250)
{
  Serial.print(" || Smoke Detected value=");
  Serial.print(val1 );

  tone(8,650);
}
else
{
  Serial.print(" || No Smoke Detected");
}
delay(300);
noTone(8);
//PIR sensor
int val2=digitalRead(2);
delay(500);
if(val2==1)
{
  Serial.println(" || Motion Detected");
}
else
{
  Serial.println(" || No Motion Detected");
  digitalWrite(3,LOW);
}
}
```

OUTPUT:

PIR Sensor

Name 1



Text

45 //PIR sensor
46 int val2=digitalRead(2);
47 delay(500);

Serial Monitor

B ON		No Smoke Detected		Motion Detected
BULB ON		No Smoke Detected		No Motion Detected
BULB ON		No Smoke Detected		No Motion Detected
BULB ON		No Smoke Detected		No Motion Detected
BULB ON		No Smoke Detected		No Motion Detected
BULB ON		No Smoke Detected		No Motion Detected
BULB ON		Smoke Detected value=323		No Motion Detected
BULB ON		Smoke Detected value=323		No Motion Detected
BULB ON		Smoke Detected value=323		No Motion Detected
BULB ON		Smoke Detected value=323		No Motion Detected
BULB ON		Smoke Detected value=323		No Motion Detected
BULB ON		Smoke Detected value=323		No Motion Detected
BULB ON		Smoke Detected value=323		Motion Detected
BULB ON		Smoke Detected value=323		Motion Detected

Send Clear