

# IBM PROJECT ASSIGNMENT – 1

## SMART HOME AUTOMATION

Name: Jasith.S

Register Number:722819106033

Team ID:PNT2022TMID19483

CODE:

```
#include<Servo.h>
```

```
#include<stdio.h>
```

```
Servo s;
```

```
void setup()
```

```
{
```

```
    pinMode(3,INPUT);
```

```
    s.attach(4);
```

```
    pinMode(5,INPUT);
```

```
    pinMode(6,OUTPUT);
```

```
    pinMode(7,INPUT);
```

```
    pinMode(8,OUTPUT);
```

```
    pinMode(9,OUTPUT);
```

```
    pinMode(10,OUTPUT);
```

```
    pinMode(11,OUTPUT);
```

```
    pinMode(12,OUTPUT);
```

```
    pinMode(13,OUTPUT);
```

```
    Serial.begin(9600);
```

```
}
```



```

void loop() { double a =
analogRead(A0); double t =
(((a/1024)*5)-0.5)*100; int b =
digitalRead(7); if(b ==
HIGH){ digitalWrite(13,HIGH);
    Serial.println("Motion
Detected.");
}
else{ digitalWrite(13,
LOW);
}
Serial.println(b);

digitalWrite(6,LOW);
digitalWrite(6,HIGH);
delayMicroseconds(10);
digitalWrite(6,LOW); float
dur = pulseIn(5,HIGH);
float dis = (dur*0.0343)/2;
int d = digitalRead(3);
Serial.print("what: ");
Serial.println(d);

if(dis<30 && b == HIGH ||
d==LOW){ Serial.println("INTRUDE
R!!!!"); s.write(90); delay(100);
}
else{

```



```

    s.write(0);

}

delay(1000);
Serial.print("Temp Value:
"); Serial.println(t); int c =
0;
if(t<15){  digitalWrite(9,LO
W);  digitalWrite(10,LOW);
digitalWrite(11,LOW);
digitalWrite(12,HIGH);
tone(8,131);
}
else if(t>15 &&
t<30){  digitalWrite(9,LOW);
digitalWrite(10,LOW);
digitalWrite(11,HIGH);
digitalWrite(12,LOW);
noTone(8);
}
else if(t>30 &&
t<45){  digitalWrite(9,LOW);
digitalWrite(10,HIGH);
digitalWrite(11,LOW);
digitalWrite(12,LOW);
noTone(8);

}
else{

```



```

    digitalWrite(9,HIGH);
digitalWrite(10,LOW);
digitalWrite(11,LOW);
digitalWrite(12,LOW);
tone(8,131);
}
delay(100);

}

```

STIMULATION SCREENSHOT:

