

# IOT Home automation assessment

## Code:

```
// C++ code

//

float temp;

void setup()

{

    pinMode(6,INPUT);

    pinMode(12,OUTPUT);

    Serial.begin(9600);

}

void loop()

{

    if(digitalRead(6)==HIGH){

        tone(12,523,1000);

        Serial.println("Unknown detected");

    }

    else{

        noTone(12);

    }

    temp=analogRead(A1);

    temp=temp*0.48828125;
```

```

if(temp>=110.84){

    tone(12,100,2000);

    Serial.print("Above 60 c Temperature...");

}

else{

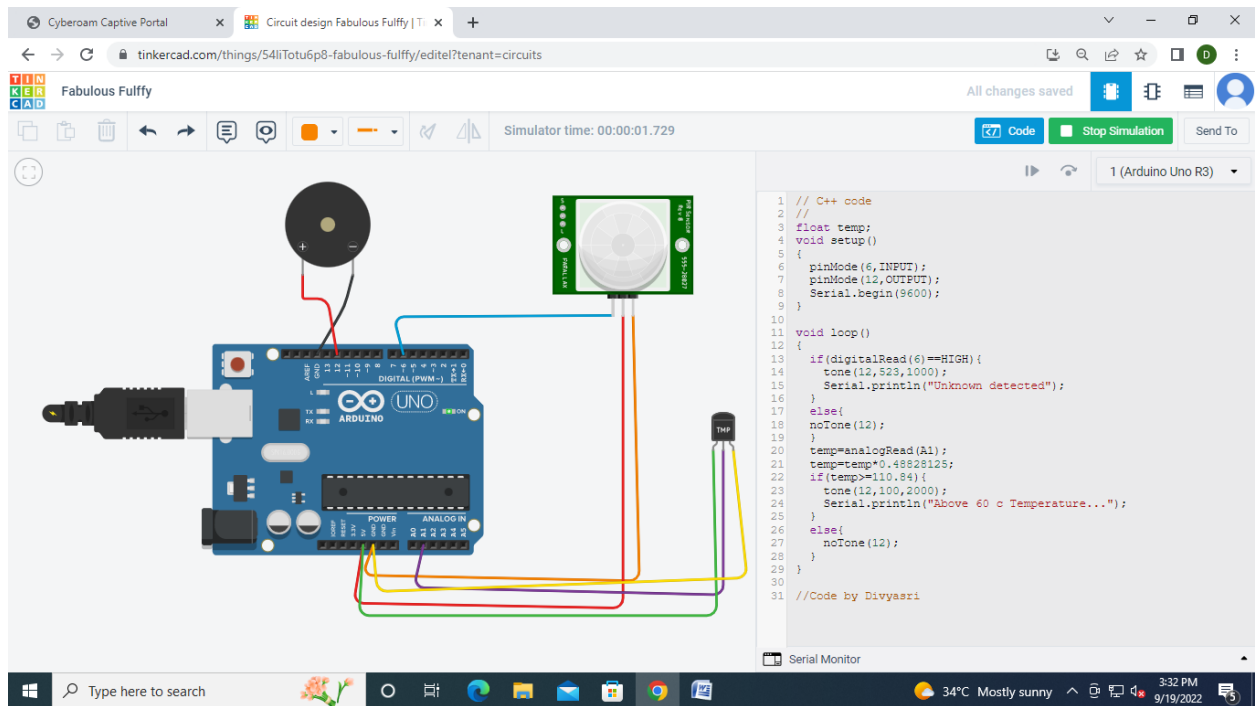
    noTone(12);

}

}

```

## Circuit Diagram:



Output:

## PIR Sensor

The screenshot shows a Tinkercad workspace with an Arduino Uno and a PIR sensor. The sensor is connected to the Arduino's digital pins. The code in the right panel is as follows:

```
1 // C++ code
2 //
3 float temp;
4 void setup()
5 {
6   pinMode(6, INPUT);
7   pinMode(12, OUTPUT);
8   Serial.begin(9600);
9 }
10
11 void loop()
12 {
13   if(digitalRead(6) == HIGH) {
14     tone(12, 523, 1000);
15     Serial.println("Unknown detected");
16   }
17   else{
18     noTone(12);
19   }
20   temp = analogRead(A1);
21   temp = temp * 0.48828125;
22   if(temp > 110.84) {
23     tone(12, 100, 2000);
24     Serial.print("Above 60 c Temperature...");
25   }
```

The Serial Monitor shows the output: "Unknown detected" repeated multiple times.

## Temperature Sensor

The screenshot shows a Tinkercad workspace with an Arduino Uno and a temperature sensor. The sensor is connected to the Arduino's analog pins. The code in the right panel is as follows:

```
1 // C++ code
2 //
3 float temp;
4 void setup()
5 {
6   pinMode(6, INPUT);
7   pinMode(12, OUTPUT);
8   Serial.begin(9600);
9 }
10
11 void loop()
12 {
13   if(digitalRead(6) == HIGH) {
14     tone(12, 523, 1000);
15     Serial.println("Unknown detected");
16   }
17   else{
18     noTone(12);
19   }
20   temp = analogRead(A1);
21   temp = temp * 0.48828125;
22   if(temp > 110.84) {
23     tone(12, 100, 2000);
24     Serial.println("Above 60 c Temperature...");
25   }
```

The Serial Monitor shows the output: "Above 60 c Temperature..." repeated multiple times.