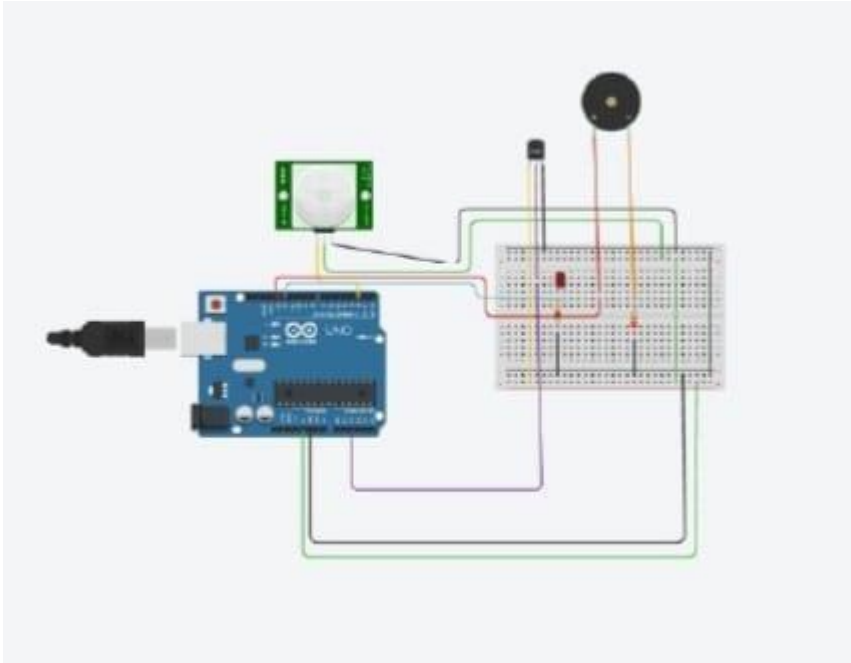


Assignment -1

Assignment Date	06 November 2022
Student Name	Ms.T.Nithyasri
Student Roll Number	821719106017
Maximum Marks	2 Marks

Question-1:

Build a smart home in thinkercad with 2 sensors, an LED , buzzer.



Coding:

```
int pinSensor =2;
int pinLed =12;
int pinBuzzer =13;
int pirSensor =0;

void setup()
{
  Serial.begin(9600);
  pinMode(pinSensor, INPUT);
  pinMode(pinLed, OUTPUT);
  pinMode(pinBuzzer, OUTPUT);
}

void loop()
{
  double avalue=analogRead(A2);
```

```

Serial.print("avalue is : ");
Serial.println(avalue);
double ca= avalue/1024;
double v= ca* 5;
Serial.print("voltage is:");
Serial.println(v);
double o =v-0.5;
Serial.print("offset voltage:");
Serial.println(o);
pirSensor = digitalRead(pinSensor);
if (pirSensor == HIGH)
{

    digitalWrite(pinLed, HIGH);
    tone(pinBuzzer, 1000, 500);

}

else {

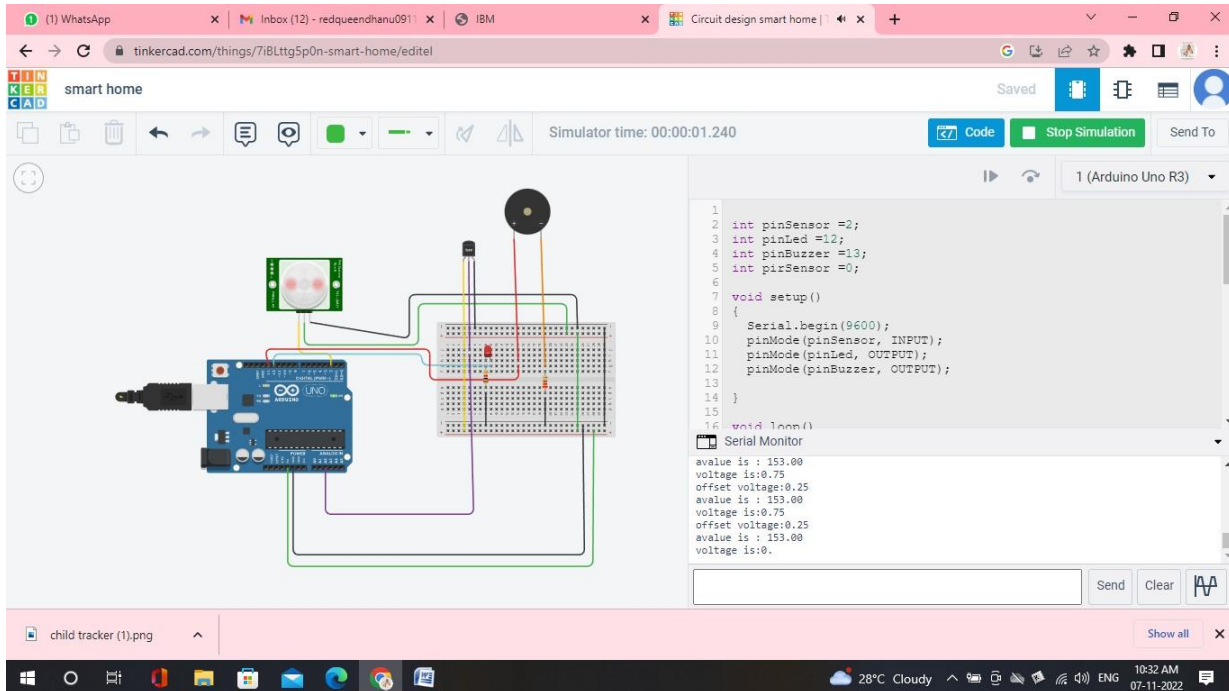
    digitalWrite(pinLed, LOW);

}

delay(10);
}

```

Output :



The screenshot shows the Tinkercad web interface for a "smart home" project. The circuit diagram on the left features an Arduino Uno R3 connected to a breadboard. The breadboard contains a buzzer and an LED. A PIR sensor module is also connected to the breadboard. The code editor on the right shows the following sketch:

```

1  int pinSensor =2;
2  int pinLed =12;
3  int pinBuzzer =13;
4  int pirSensor =0;
5
6
7  void setup()
8  {
9      Serial.begin(9600);
10     pinMode(pinSensor, INPUT);
11     pinMode(pinLed, OUTPUT);
12     pinMode(pinBuzzer, OUTPUT);
13
14 }
15
16 void loop()

```

The serial monitor on the right displays the following output:

```

avalue is : 153.00
voltage is:0.75
offset voltage:0.25
avalue is : 153.00
voltage is:0.75
offset voltage:0.25
avalue is : 153.00
voltage is:0

```

The bottom of the screen shows a Windows taskbar with the date and time: 10:32 AM, 07-11-2022.