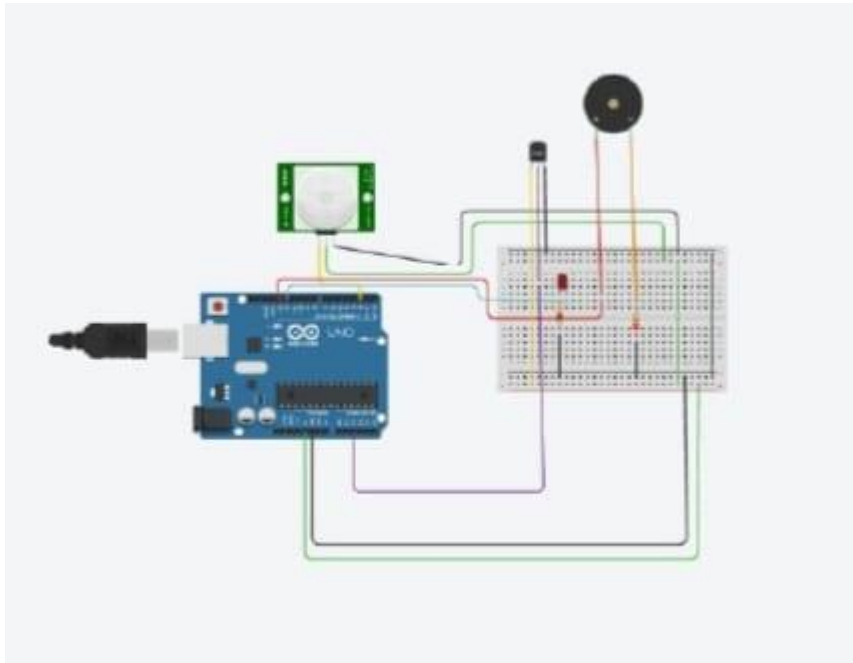


Assignment -1

| | |
|---------------------|------------------|
| Assignment Date | 06 November 2022 |
| Student Name | Ms.M.Gayathri |
| Student Roll Number | 821719106012 |
| 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 {

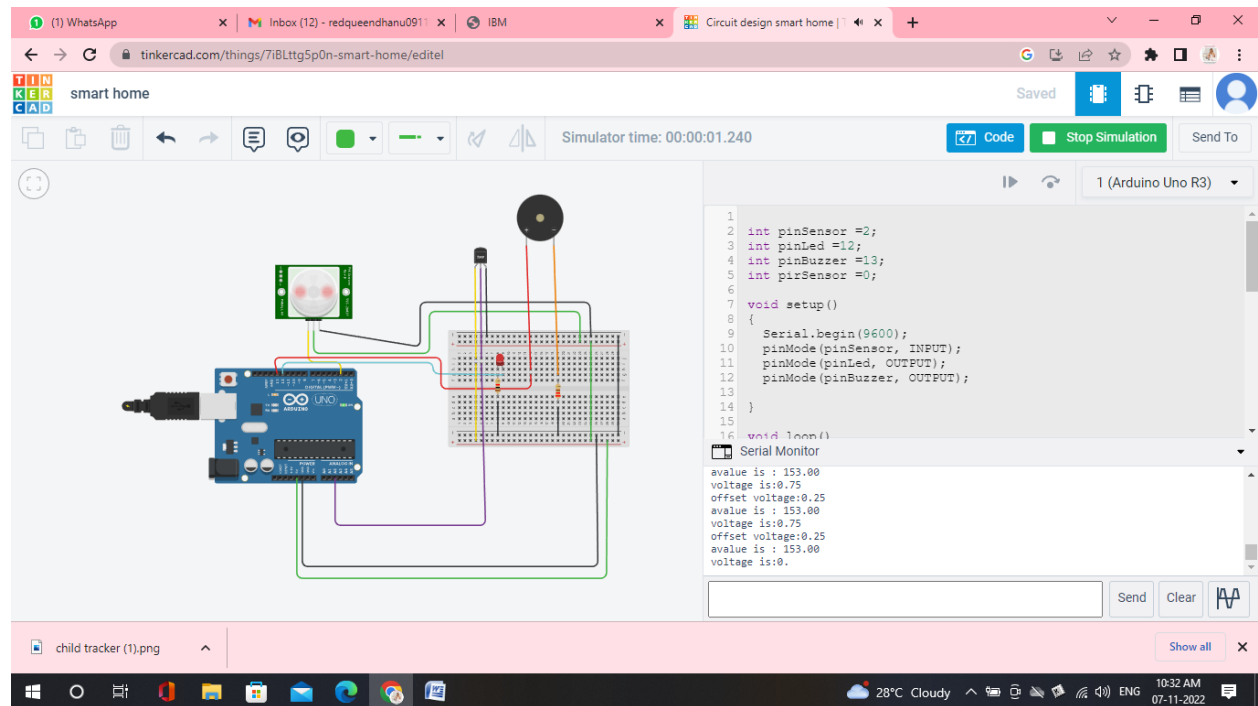
    digitalWrite(pinLed, LOW);

}

delay(10);
}

```

Output :



The screenshot shows the Tinkercad web interface for a smart home project. The circuit diagram on the left shows an Arduino Uno R3 connected to a breadboard. A PIR sensor is connected to the Arduino's digital input pin 2. A buzzer is connected to the Arduino's digital output pin 13. An LED is connected to the Arduino's digital output pin 12. The code editor on the right shows the following code:

```

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 at the bottom shows the output of the code:

```

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.

```