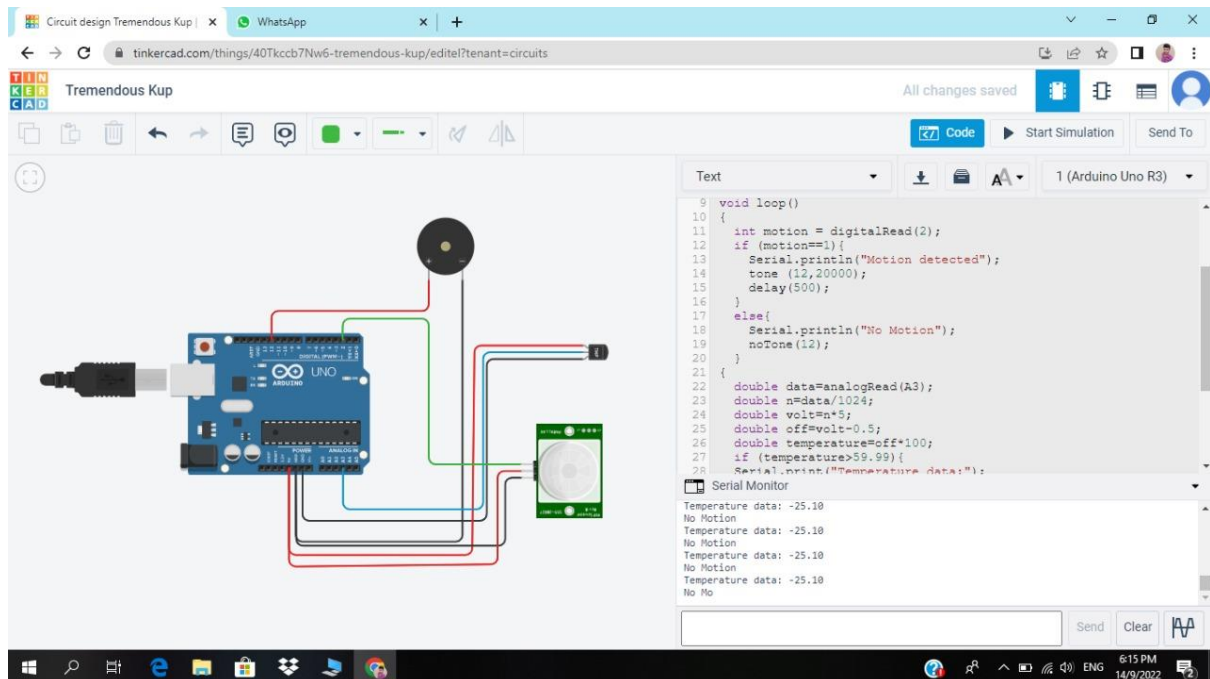# IBM ASSIGNMENT-1

NAME : AJAY.A

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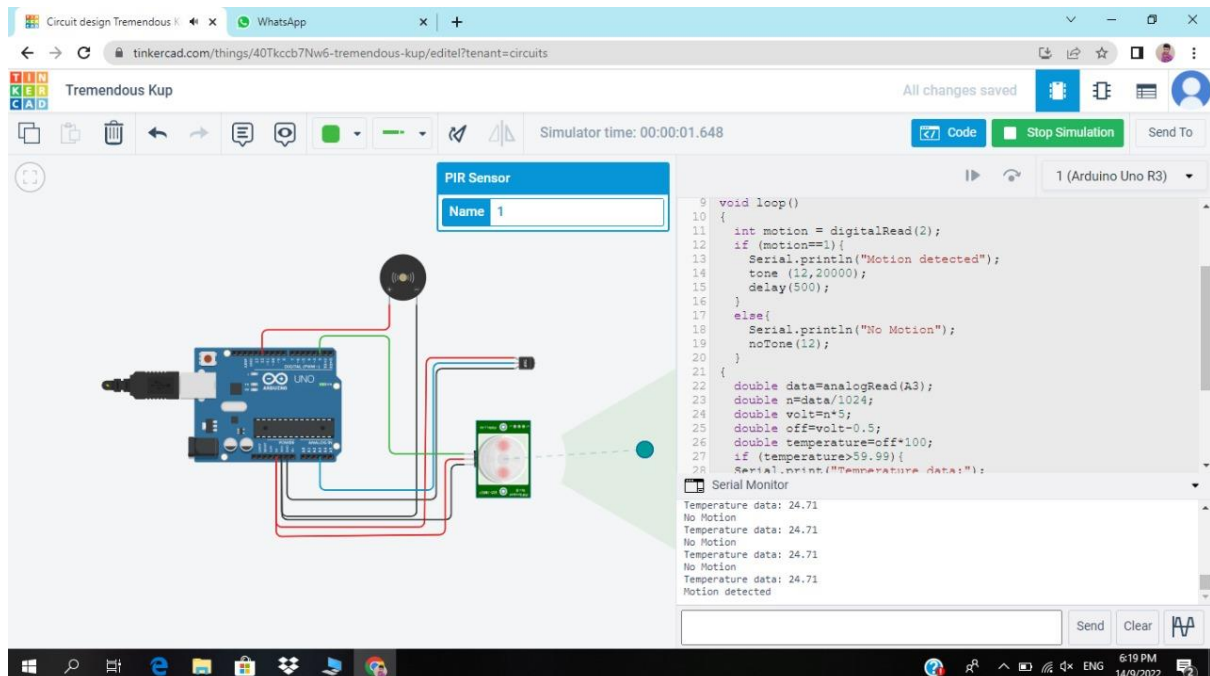CIRCUIT LAYOUT :

Coding :

```
void setup()
{
 Serial.begin (9600);
 pinMode(2, INPUT);
 pinMode(12,OUTPUT);
 pinMode(A3,INPUT);
}

void loop()
{
 int motion = digitalRead(2);
 if (motion==1){
   Serial.println("Motion detected");
   tone (12,20000);
   delay(500);
 }
 else{
  Serial.println("No Motion");
  noTone(12);
 }
{
```

```
double data=analogRead(A3);

double n=data/1024;

double volt=n*5;

double off=volt-0.5;

double temperature=off*100;

if (temperature>59.99){

Serial.print("Temperature data:");

Serial.println(temperature);

tone(12,10000);

delay(500);

}

else

  Serial.print("Temperature data: ");

  Serial.println(temperature);

  noTone(12);

}

}
```

Output :

1).Passive Infrared Sensor :

2).Temperature Sensor :


```
 9  void loop()
10  {
11    int motion = digitalRead(2);
12    if (motion==1){
13      Serial.println("Motion detected");
14      tone (12,20000);
15      delay(500);
16    }
17    else{
18      Serial.println("No Motion");
19      noTone(12);
20    }
21  {
22    double data=analogRead(A3);
23    double n=data/1024;
24    double volt=n*5;
25    double off=volt-0.5;
26    double temperature=off*100;
27    if (temperature>59.99){
28      Serial.print("Temperature data:");
```

Serial Monitor

```
No Motion
Temperature data:99.90
99.90
No Motion
Temperature data:99.90
99.90
No Motion
Temperature data:99.90
```