

ASSIGNMENT 1- QUESTION:

Using TinkerCad, build a circuit with temperature Sensor such that if the temperature is above 60 Celsius, the buzzer rings.

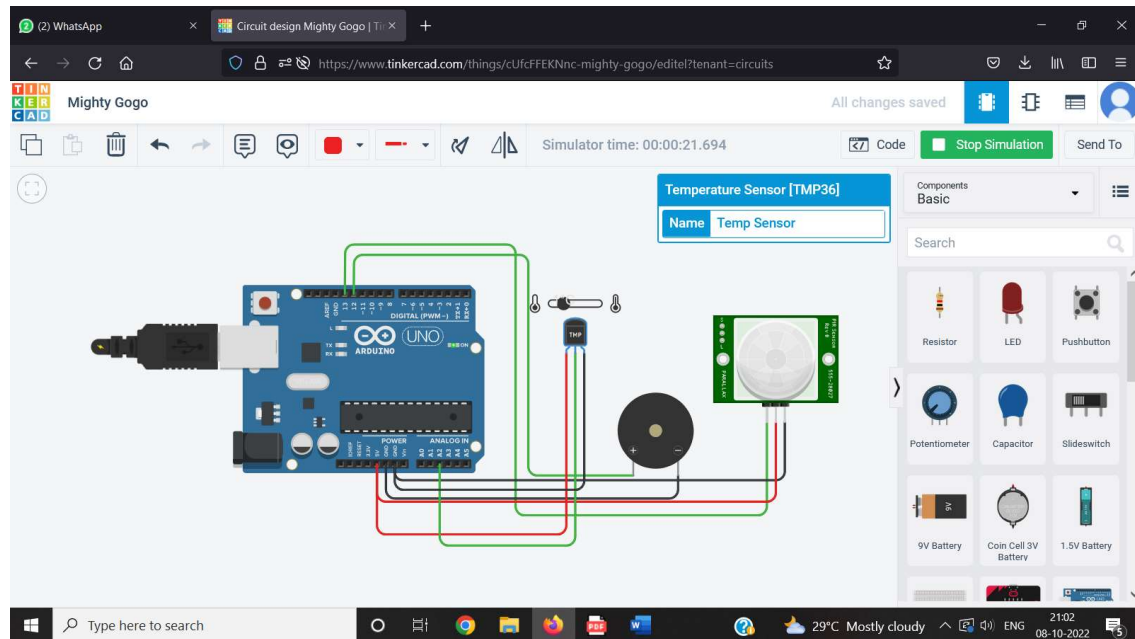
PROGRAM:

```
void setup()
{
  Serial.begin(9600);
  pinMode(13,INPUT);
  pinMode(12,OUTPUT);
}

void loop()
{
  double data=analogRead(A2);
  double n=data/1024;
  double volt=n*5;
  double off=volt-0.5;
  double temperature=off*100;
  int motion=digitalRead(13);
  for(int freq=4;freq<=5;freq++)
  {
    if(temperature>=60)
    {
      Serial.println("Temperature is above 60");
      tone(12,freq);
      delay(100);
    }
    else
    {
      Serial.println("Temperature is below 60");
      noTone(12);
    }
  }
  for(int freq=2;freq<=3;freq++)
  {
    if(motion==1)
    {
      Serial.println("Motion Detected");
      tone(12,freq);
      delay(200);
    }
    else
    {
      Serial.println(" No Motion");
      noTone(12);
    }
  }
}
```

OUTPUT:

Case(i): When the temperature is below 60, buzzer doesn't ring.



Case(ii): When the temperature is above 60, the buzzer rings.

