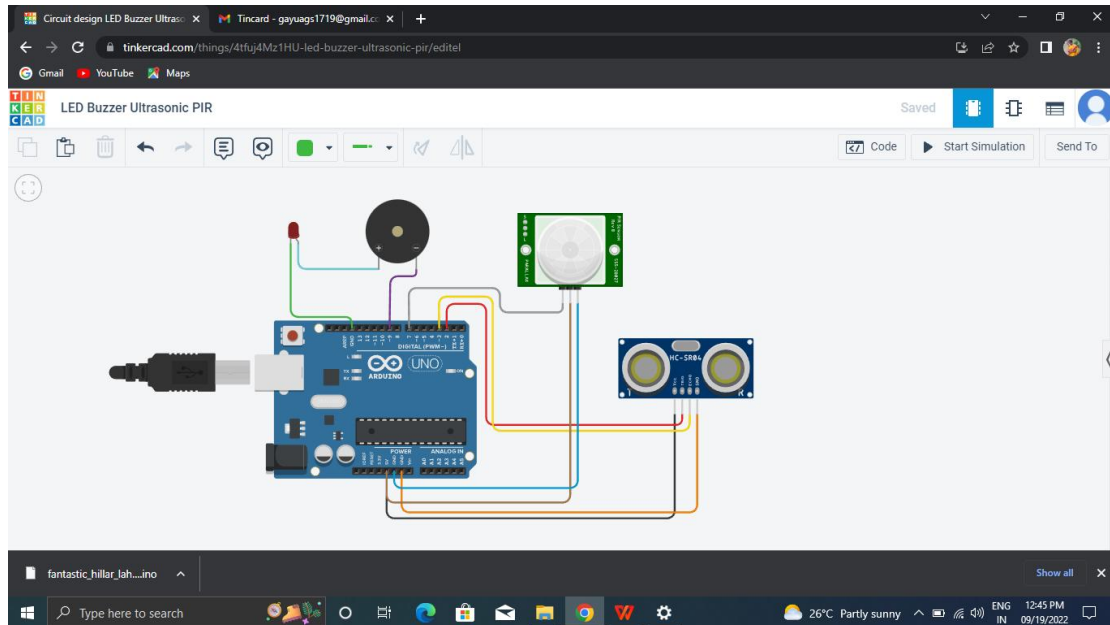


## Assignment - 1

### Circuit Diagram:



### Code:

```
// C++ code
//
int trig = 2;
int echo = 3;
void setup()
{
  pinMode(9, OUTPUT);
  pinMode(trig, OUTPUT);
  pinMode(echo, INPUT);
  pinMode(7, INPUT);
  Serial.begin(9600);
}

void loop()
{
  digitalWrite(9, HIGH);
```

```

Serial.println("LED ON");
delay(1000);
digitalWrite(9, LOW);
Serial.println("LED OFF");
delay(1000);
digitalWrite(trig, LOW);
digitalWrite(trig, HIGH);
delayMicroseconds(10);
digitalWrite(trig, LOW);
float duration = pulseIn(echo, HIGH);
float distance = (duration*0.0343)/2;
Serial.print("Distance");
Serial.println(distance);
if (distance >=100)
{
    digitalWrite(9, HIGH);
}
else
{
    digitalWrite(9, LOW);
}
int m = digitalRead(7);
Serial.print("motion detected:");
Serial.println(m);
if(m==1)
{
    Serial.println("Yes");
}
else
{
    Serial.println("No");
}
}

```

## Output:

