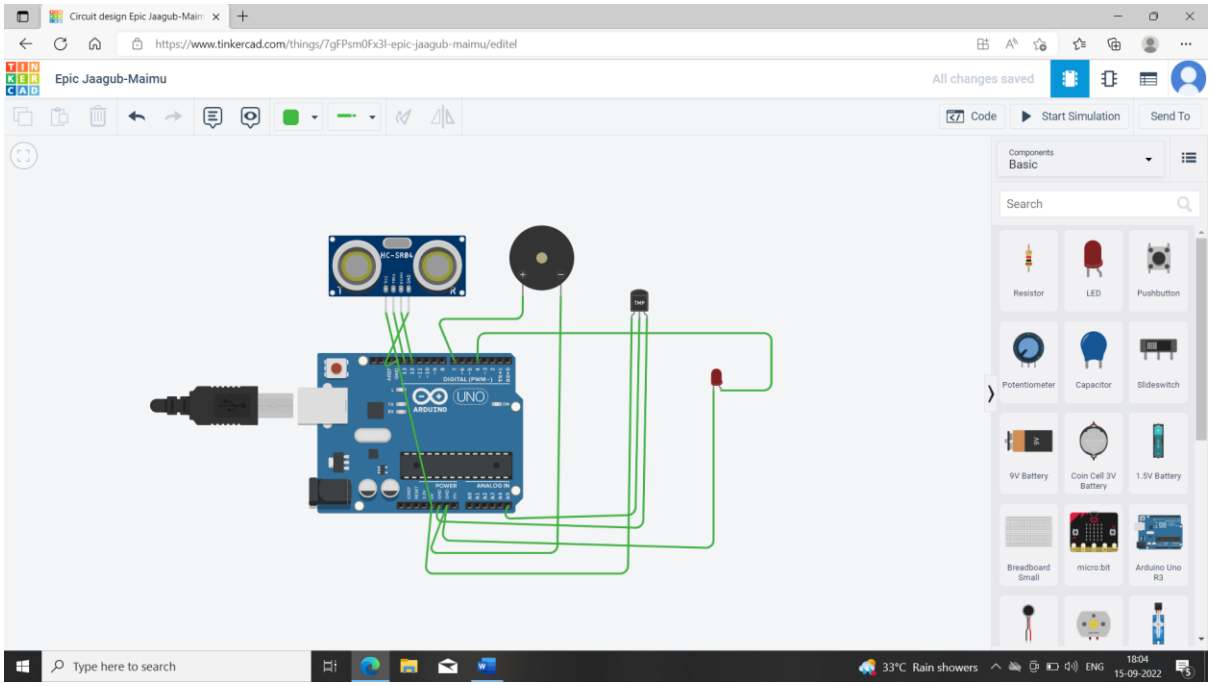
ASSIGNMENT:

Program:

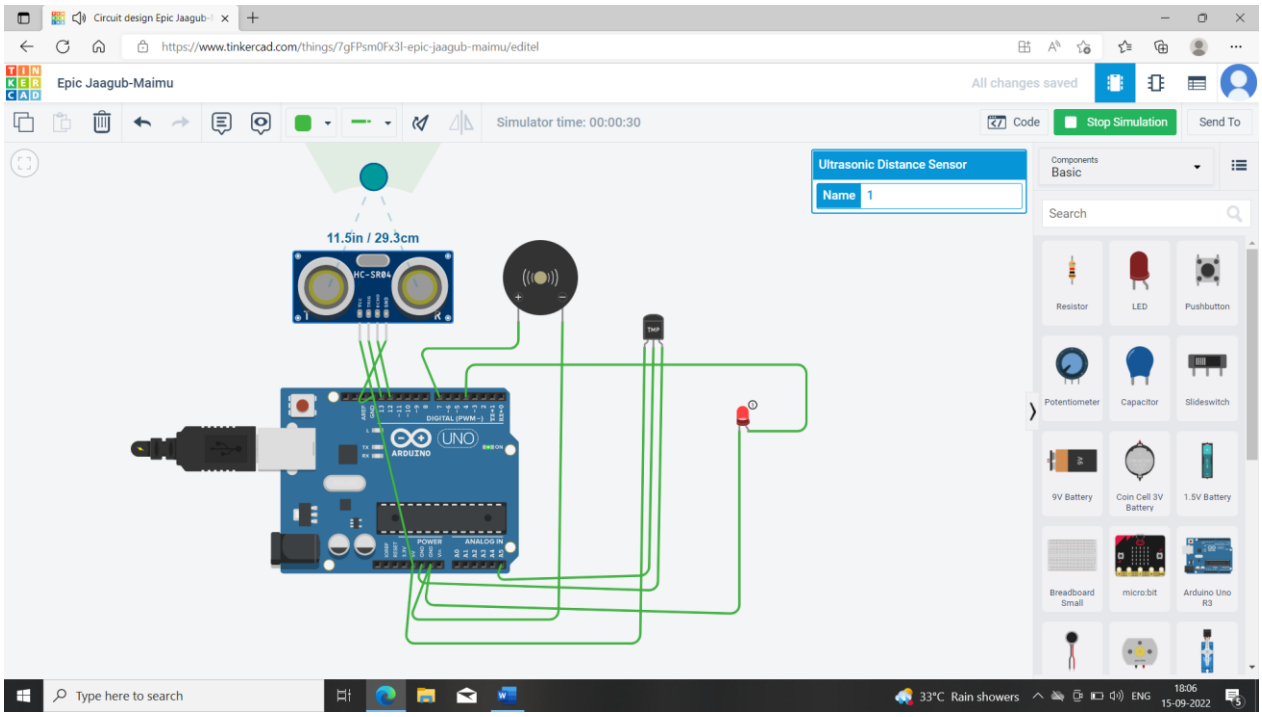
```
int trigPin = 13;    // TRIG pin
int echoPin = 12;// ECHO pin
int buzzer=7;
int Tmp=A5;
int led=4;
float duration , distance ,voltage;
void setup() {
 Serial.begin (9600);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(buzzer, OUTPUT);
  pinMode(Tmp, INPUT);
  pinMode(led, OUTPUT);
  }
void loop(){
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH);
  int reading = analogRead(Tmp);
  voltage = reading* 0.480;
  distance = 0.017*duration ;
  Serial.print("distance: ");
  Serial.print(distance);
  Serial.print("voltage:");
  Serial.print(voltage);
 delay(1000);
    if (distance<50||voltage<20)
```

```
  {
digitalWrite(buzzer, HIGH);
    digitalWrite(led, HIGH);
  }
 else
 {
   digitalWrite(buzzer, LOW);
   digitalWrite(led, LOW);
    }
}
```

CONECTION DIAGRAM:



OUTPUT:


Circuit design Epic Jaagub-
https://www.tinkercad.com/things/7gFPsm0Fx3l-epic-jaagub-maimu/editel
Epic Jaagub-Maimu
All changes saved
Simulator time: 00:00:30
Code
Stop Simulation
Send To
11.5in / 29.3cm
HC-SR04
Ultrasonic Distance Sensor
Name 1
Components
Basic
Search
Resistor
LED
Pushbutton
Potentiometer
Capacitor
Slideswitch
9V Battery
Coin Cell 3V Battery
1.5V Battery
Breadboard Small
micro:bit
Arduino Uno R3
Type here to search
33°C Rain showers
ENG
18:06
15-09-2022