

# IBM - Nalaiya Thiran Project

## Assignment 1

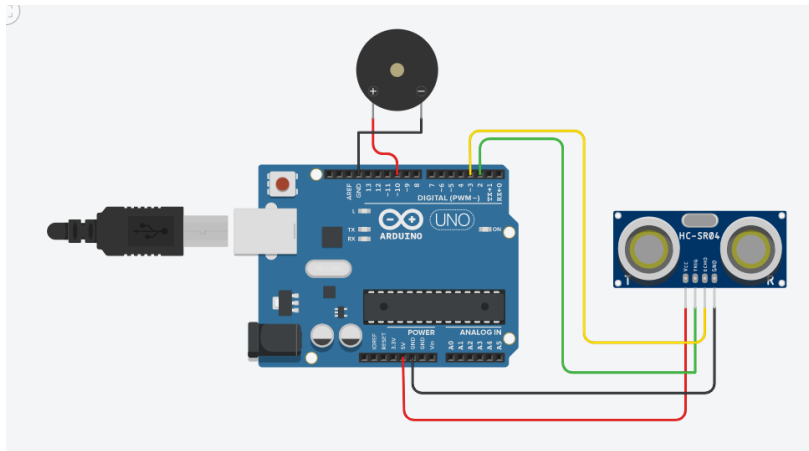
### Smart Home

### Door Buzzer

REG.NO:812019106016

NAME:LAIYANCEMARY.A

## CIRCUIT DIAGRAM

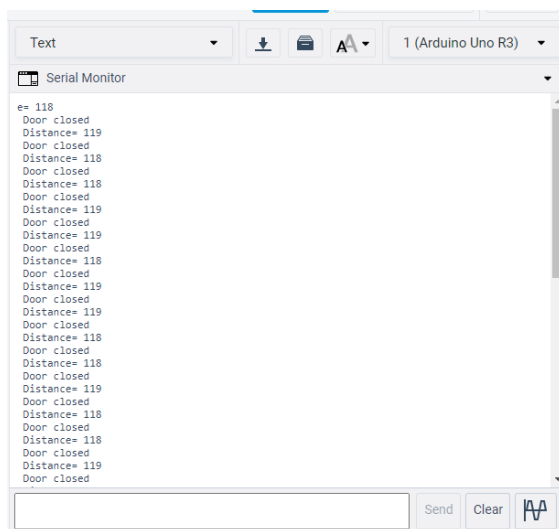
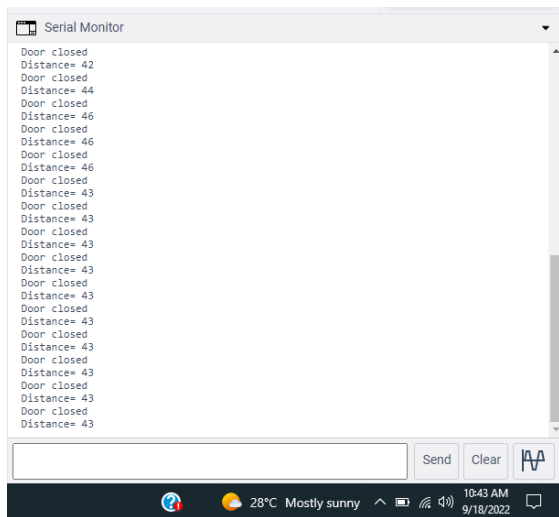


## Source code

```
int trigger_pin = 2;
int echo_pin = 3;
int buzzer_pin = 10;
int time;
int distance;
void setup()
{
    Serial.begin (9600);
    pinMode (trigger_pin, OUTPUT);
    pinMode (echo_pin, INPUT);
    pinMode (buzzer_pin, OUTPUT);
}
void loop()
{
    digitalWrite (trigger_pin, HIGH);
    delayMicroseconds (10);
    digitalWrite (trigger_pin, LOW);
```

```
time = pulseIn (echo_pin, HIGH);  
distance = (time * 0.034) / 2;  
  
if (distance <= 10)  
{  
  Serial.println (" Door Open ");  
  Serial.print (" Distance= ");  
  Serial.println (distance);  
  digitalWrite (buzzer_pin, HIGH);  
  delay (500);  
}  
else {  
  Serial.println (" Door closed ");  
  Serial.print (" Distance= ");  
  Serial.println (distance);  
  digitalWrite (buzzer_pin, LOW);  
  delay (500);  
}  
}
```

## Serial Monitor



Link:

<https://www.tinkercad.com/things/bVJ4Nutp4JA?sharecode=f8YIDfDFxeRqMZRNERObh5yFOEHmQHEfS KKfRHt5wJA>