

## Assignment 1

**Student Name :**Mano Bharathi T

**Student Roll No :**

PNT2022TMIDI7635

**Maximum Marks :** 2 Marks

**Project Name :** IoT based safety gadget for child safety monitoring notification

### DOMAIN: CHILD SAFETY GADGET

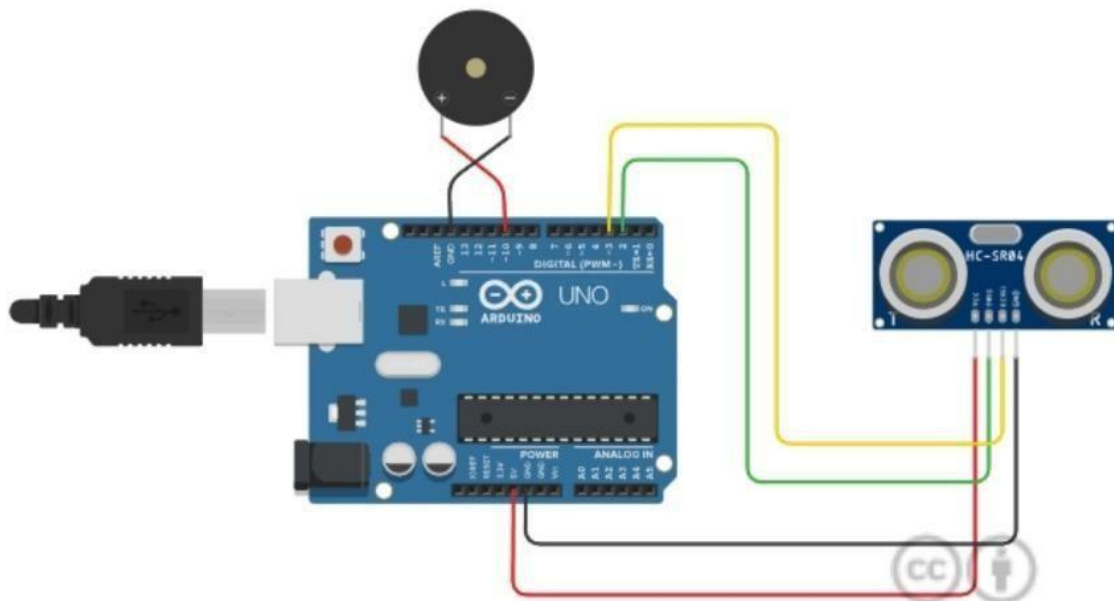
Description: the assignment is about child safety gadget using IOT, where the ultrasonic distance sensor detects the particles within the distance 10m and piezo is also used here when some particle is detected using piezo is an electronic device that is used to produce that is used to produce tone or alarm or sound .

Materials used:

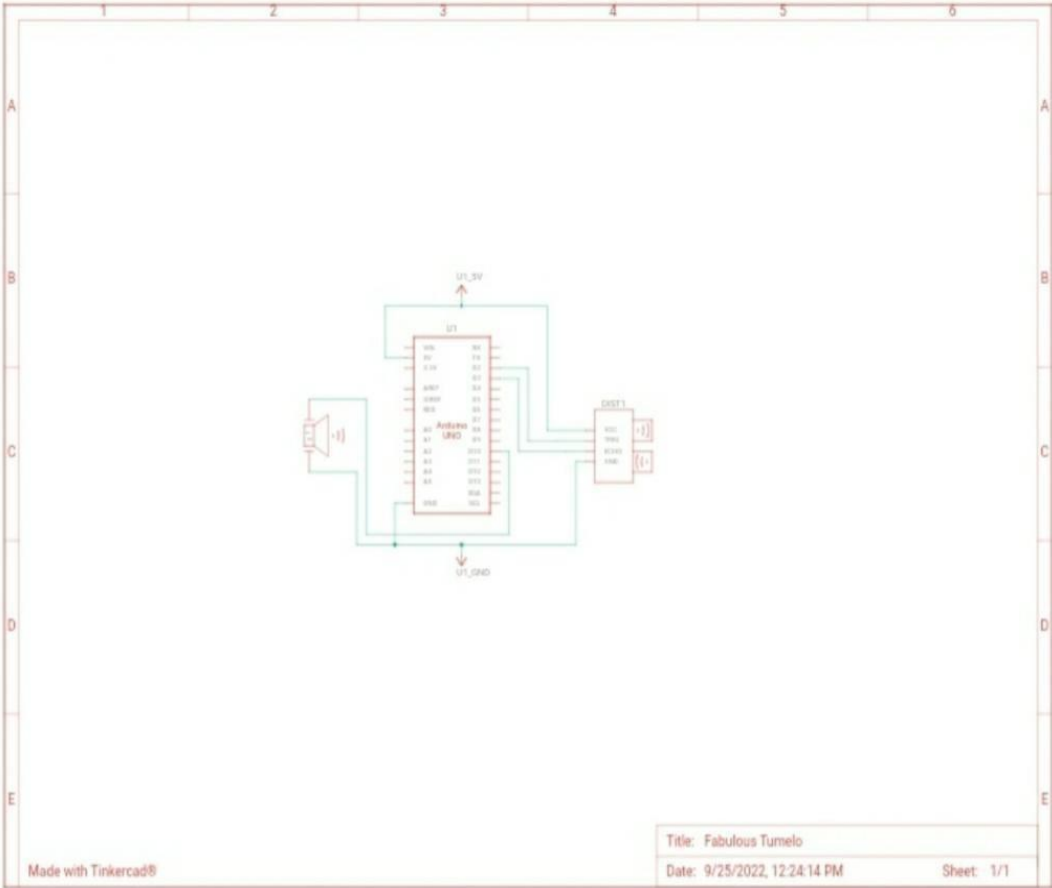
- Ultrasonic distance sensor
- Piezo buzzer
- Arduino uno R3

Design sight: <https://www.tinkercad.com/things/ca7Sx9MF9Te-fabulous-tumelo/editel>

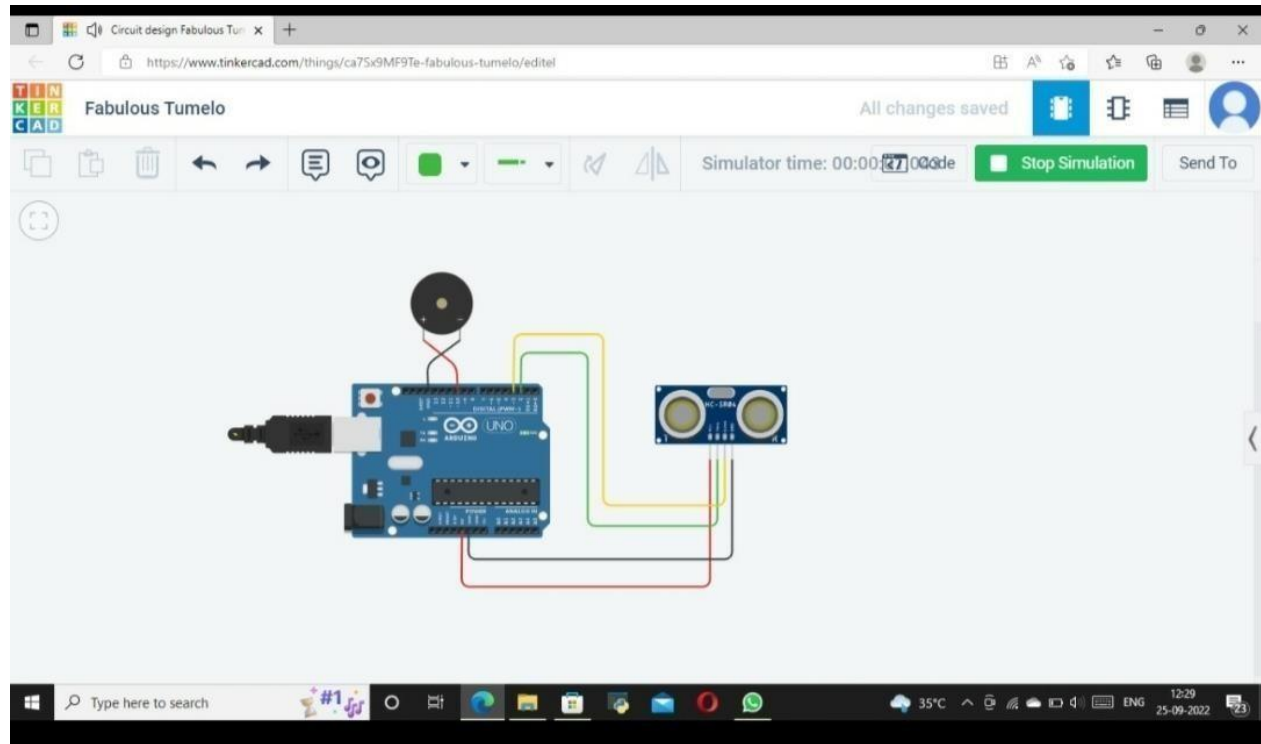
Diagram:



Circuit diagram:



OUTPUT:



## 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 ("Some person near
child");
    }
}
```

```
Serial.print (" Distance=");  
Serial.println(distanc  
e);  
digitalWrite  
(buzzer_pin, HIGH);  
delay (500);  
}  
else{  
Serial.println ("some person not  
near child ");Serial.print  
(" Distance= ");  
Serial.println  
(distance);  
digitalWrite  
(buzzer_pin, LOW);  
delay (500);  
}  
}
```

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