

ASSIGNMENT-1

TECHNOLOGY: INTERNET OF THINGS

DOMAIN: CHILD SAFETY GADGET

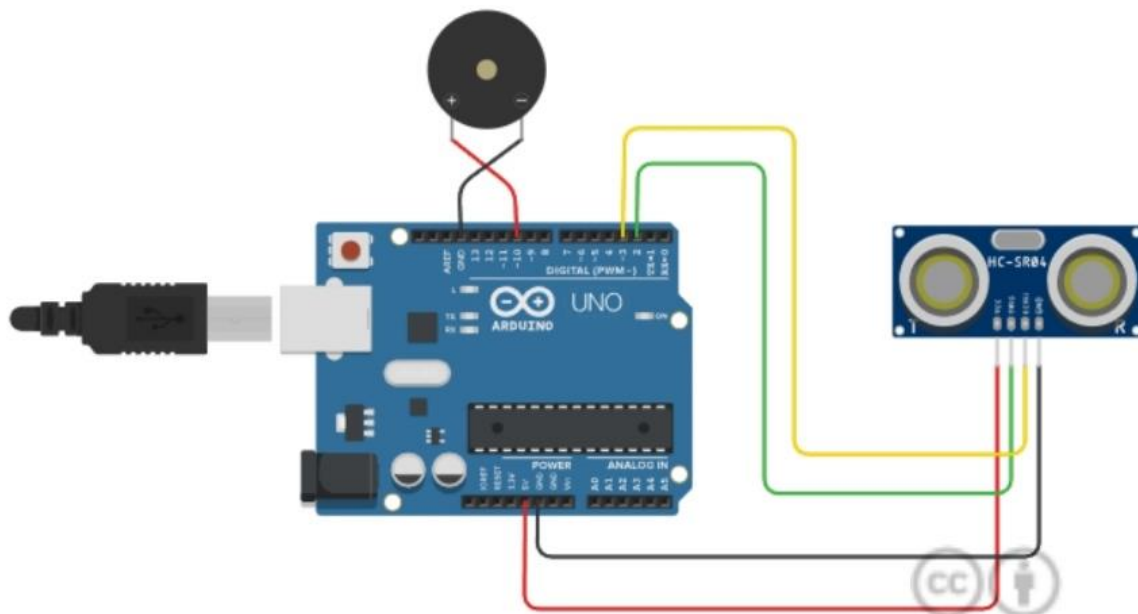
Description: the assignment is about child safety gadget using IOT, where the ultrasonic distance sensor detects the particles within the distance 10m and piezo is also used here when some particle is detected using piezo is an electronic device that is used to produce that is used to produce tone or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

Materials used:

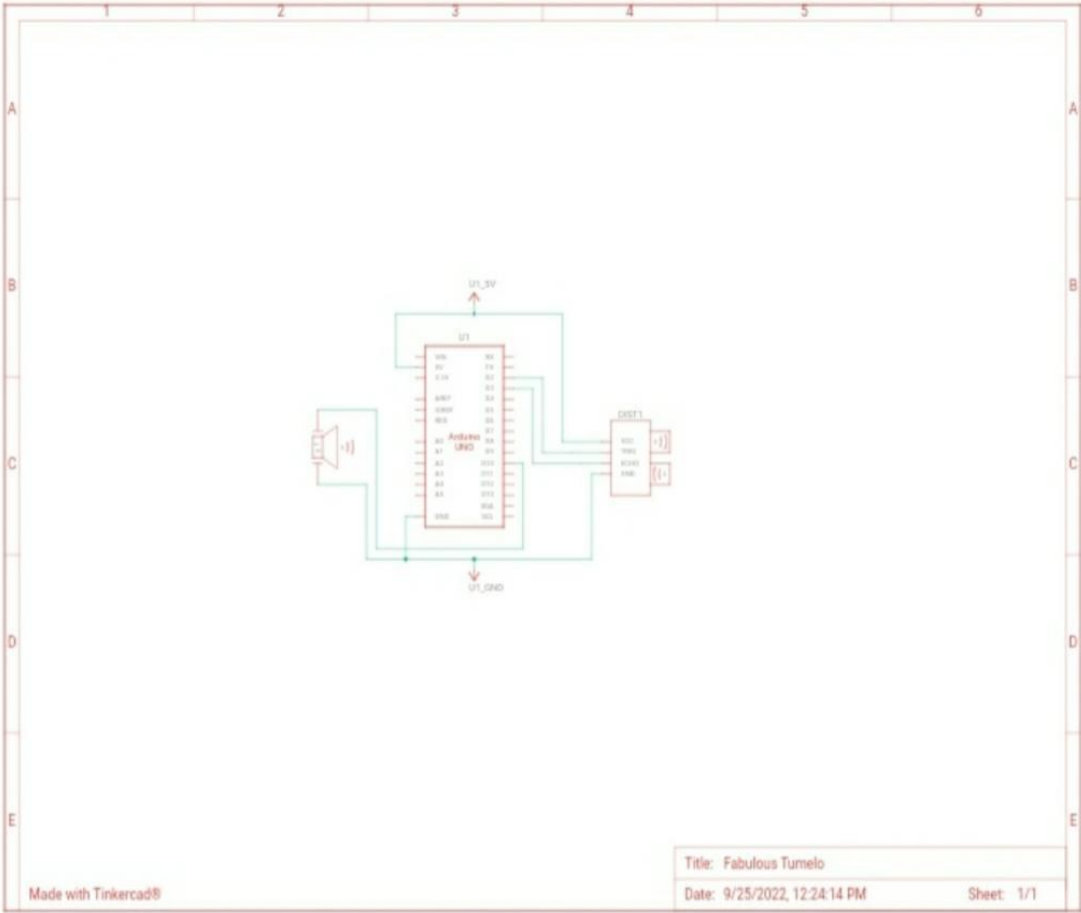
- Ultrasonic distance sensor
- Piezo buzzer
- Arduino uno R3

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

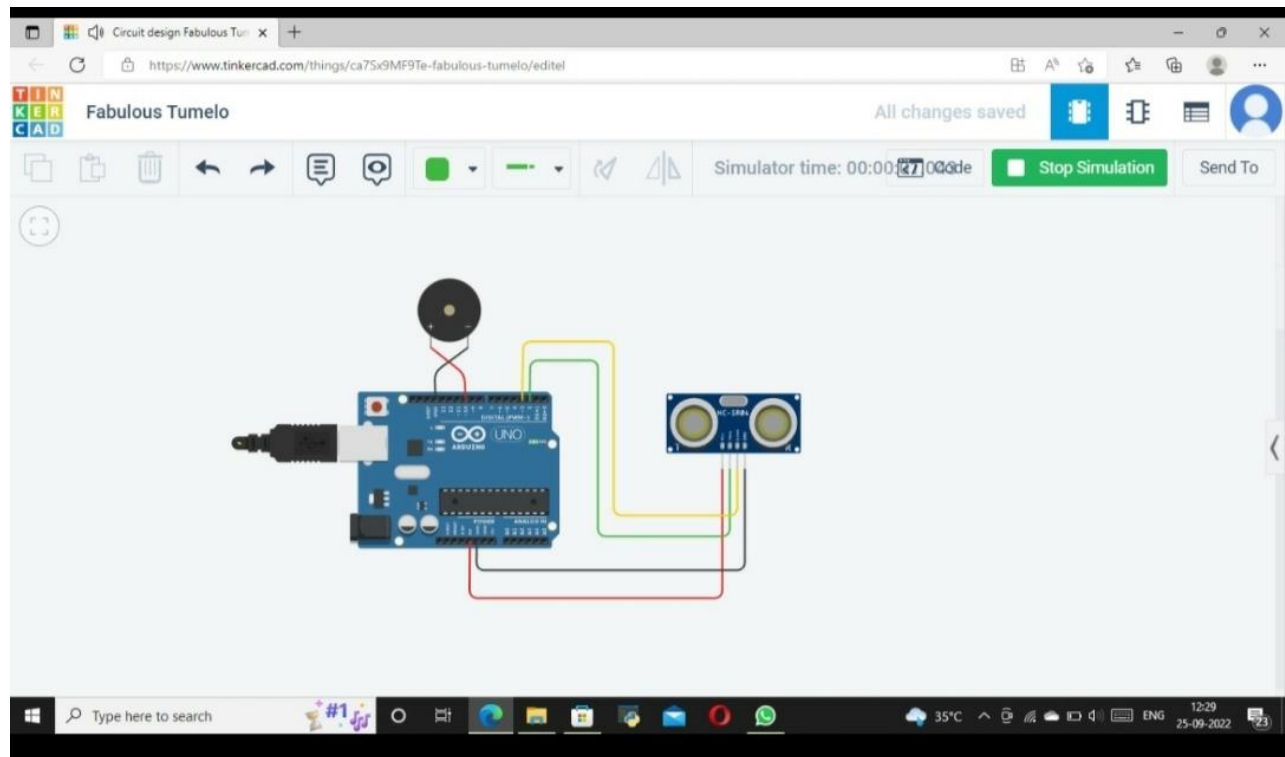
Diagram:



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 (distance);
        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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