

## Assignment 1

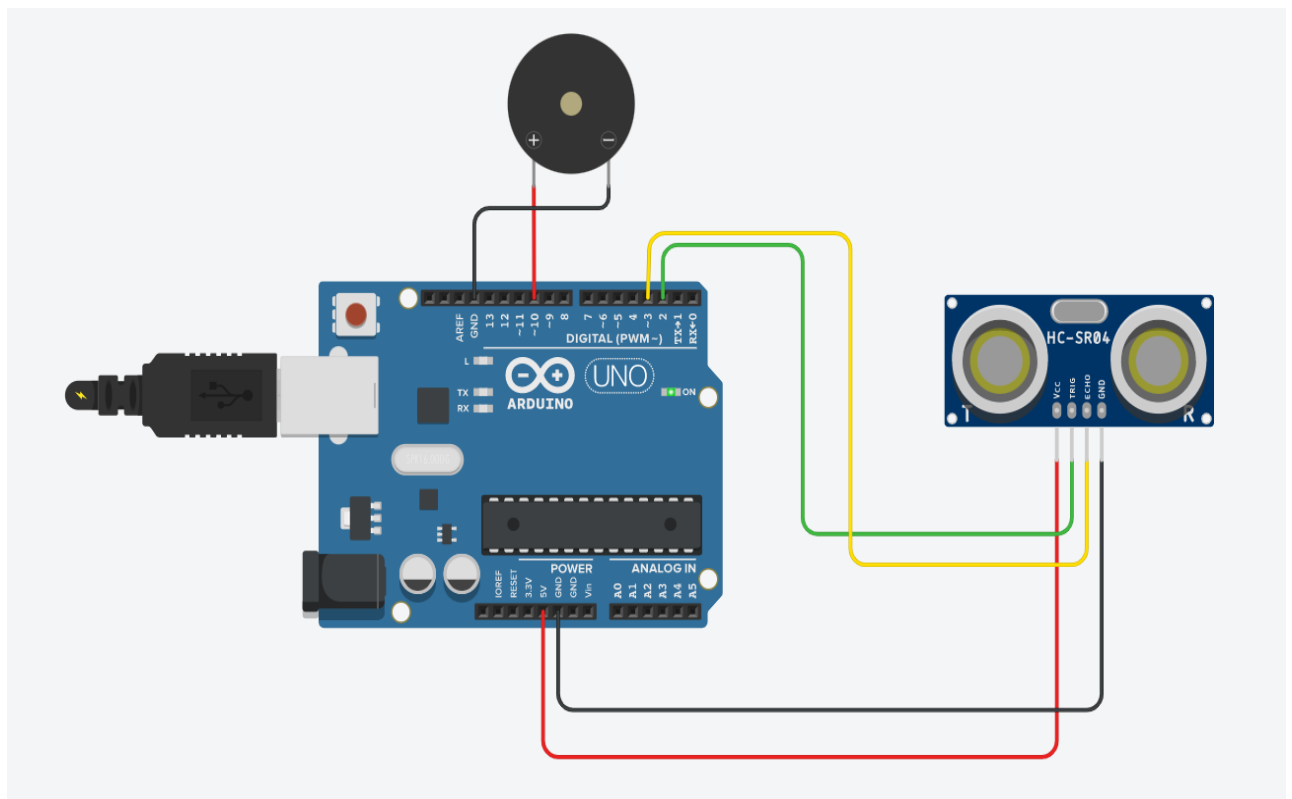
Problem statement:

### SmartFarmer - IoT Enabled Smart Farming Application

Assignment date	15 September 2002
Student Name	HARISH J
Student Roll Number	814719106023
Maximum Marks	2 Marks

Assignment 1:Circuit design Home Automation system in Tinkercad.

Circuit diagram :



## **Program ;**

Arduino Uno Code ;

```
//door buzzer using ultrasonic sensor
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);  
}  
}
```