

Problem Statement :

IoT-Based Smart Crop Protection System
for Agriculture

Domain :

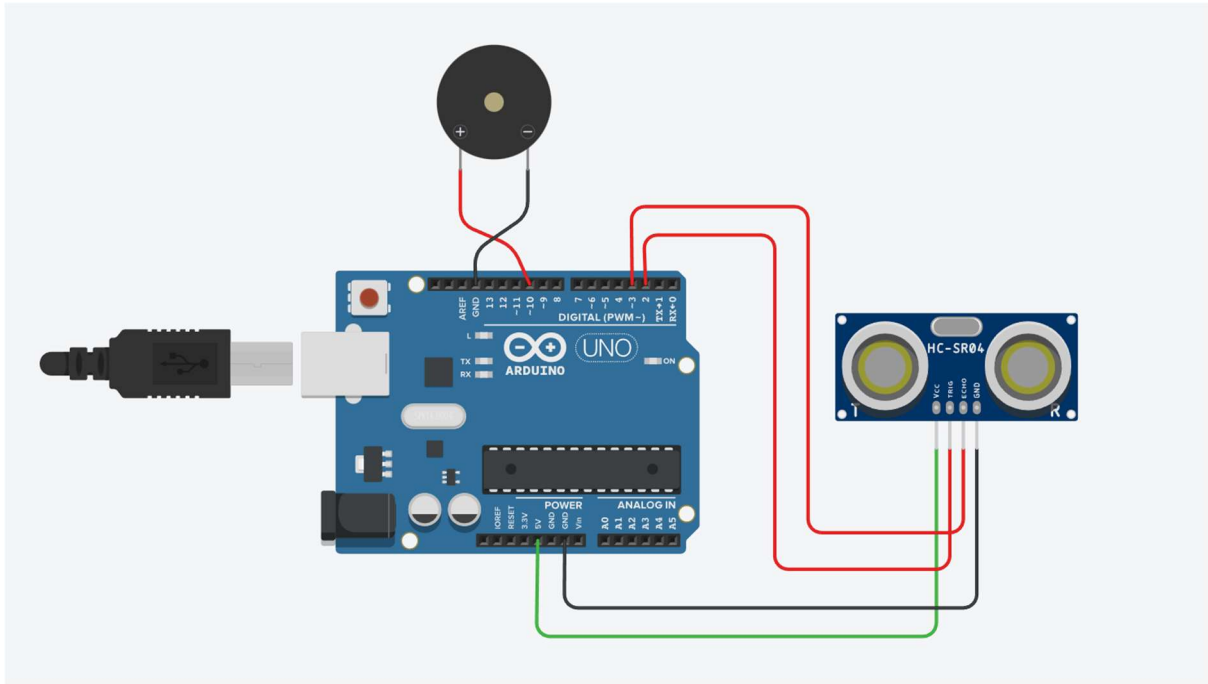
Internet of Things

Assignment 1:

Smart home with at least two sensors

By,
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Circuit diagram:



Arduino Uno 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);  
    }  
}
```