**Problem Statement :**

IoT-Based Smart Crop Protection System
for Agriculture

**Domain :**
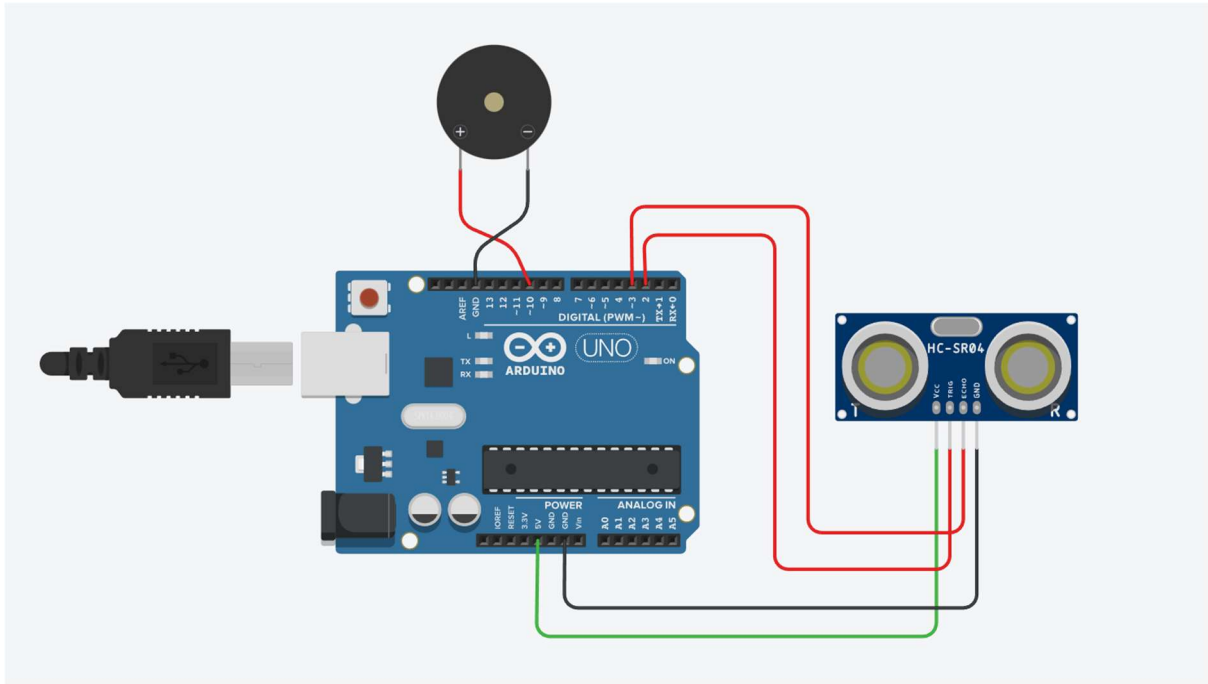
Internet of Things

**Assignment 1:**

Smart home with at least two sensors

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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);
      }
}
```