Professional Readiness for

Innovation,Employability And Entrepreneurship

SMART HOME

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Door Buzzer Using Ultrasonic Sensor

CODE:

```
 // Door Alarm Using Arduino UNO and Ultrasonic Sensor
// Code to be used in the Text sub-window of tinkercad.com circuit page


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);
```

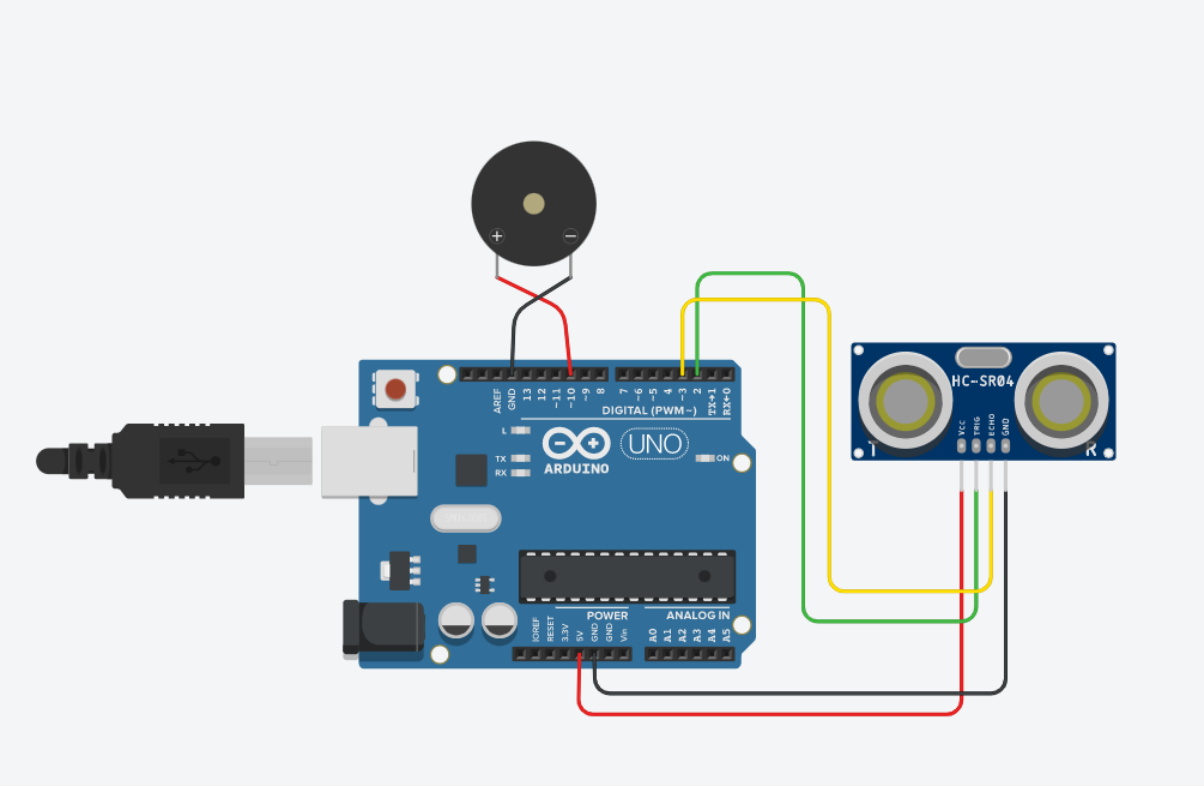
```
  distance = (time * 0.034) / 2;


 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);
 }
}
```

TINKERCAD LINK:

https://www.tinkercad.com/things/8URoJUOGBCv-mighty-blad-inari/editel

FIGURE:



Whenever anyone comes in the path/range of Ultrasonic Sensor,microcontroller detects the distance of object is in the defined range, it sends the High signal to the buzzer and buzzer starts beeping.