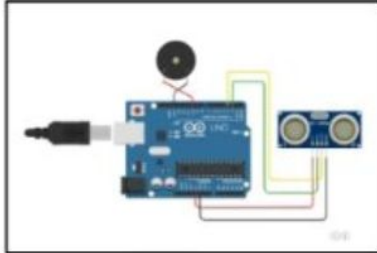


SMART HOME AUTOMATION

CIRCUIT DIAGRAM:



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);  
    }  
}
```