

## Assignment -1

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

**Question:** Build a smart home using buzzers and sensors

**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);
}
}

```

**Output:**

