

Assignment Date	14.09.2022
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Maximum Marks	2 Marks

QUESTION:

Smart Home

SOLUTION:

```
const int echoPin=2, triggerPin=3, red=4, green=5, blue=6;
const int buzz = 7;
int pulseValue;
float distance;
```

```
void setup() {
  pinMode(echoPin, INPUT);
  pinMode(triggerPin, OUTPUT);
  pinMode(red, OUTPUT);
  pinMode(green, OUTPUT);
  pinMode(blue, OUTPUT);
  pinMode(buzz, OUTPUT);
  Serial.begin(9600);
}
```

```
void loop()
{
```

```
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(5);
  digitalWrite(triggerPin, HIGH);
  delayMicroseconds(10);
  pulseValue=pulseIn(echoPin, HIGH);
  distance=(pulseValue*0.0001657*39.37);
```

```
  if (distance<=5)
  {
    digitalWrite(red, HIGH);
    digitalWrite(green, LOW);
    digitalWrite(blue, LOW);
    tone(buzz, 500);
  }
```

```
  else if (distance<=10)
  {
    digitalWrite(green, HIGH);
    digitalWrite(red, LOW);
    digitalWrite(blue, LOW);
    tone(buzz, 1000);
  }
```

```
  else
  {
    digitalWrite(blue, HIGH);
```

```
digitalWrite(red, LOW);  
digitalWrite(green, LOW);  
tone(buzz, 1500);  
}
```

```
Serial.print(distance);  
Serial.println(" inch/es");  
delay(500);  
}
```