



```
// C++ code
```

```
//SMART HOME
```

```
const int pingPin = 7; // Trigger Pin of Ultrasonic Sensor
```

```
const int echoPin = 6; // Echo Pin of Ultrasonic Sensor
```

```
int tempPin=0;
```

```
void setup()
```

```
{
```

```
  Serial.begin(9600); // Starting Serial Terminal
```

```
  pinMode(LED_BUILTIN, OUTPUT);
```

```
  pinMode(3,OUTPUT);
```

```
}
```

```
void loop()
{
    long distcm,duration;

    float temp;

    temp=analogRead(tempPin);

    temp=temp*0.4882815;

    if(temp>70)
    {
        digitalWrite(3, HIGH);
    }

    else

    {
        digitalWrite(3,LOW);
    }


    delay(1000);

    pinMode(pingPin, OUTPUT);

    digitalWrite(pingPin, LOW);

    delayMicroseconds(2);

    digitalWrite(pingPin, HIGH);

    delayMicroseconds(10);

    digitalWrite(pingPin, LOW);

    pinMode(echoPin, INPUT);

    duration = pulseIn(echoPin, HIGH);
```

```
distcm = duration*0.0343/2;
```

```
// Turns the LED ON when the water level drops below 100cm.
```

```
if(distcm<100)
```

```
{
```

```
    digitalWrite(LED_BUILTIN, HIGH);
```

```
}
```

```
else
```

```
{
```

```
    digitalWrite(LED_BUILTIN, LOW);
```

```
}
```

```
}
```