

Project Design Phase-4

Date	26 October 2023
Team ID	456
Project Name	4123-Smart Water Management
Team Name	Proj_227234_Team_2
Team Members	5

Adding New Data To The Existing Dataset

Reference:<https://wokwi.com/projects/378900005565787137>

Program Code:

```
#define PIN_TRIG 26
```

```
#define PIN_ECHO 25
```

```
#define LOWLED 18
```

```
#define MIDLED 19
```

```
#define HIGHLED 21
```

```
#define MOTOR 27
```

```
unsigned int level = 0;
```

```
void setup() {
```

```
    pinMode(LOWLED, OUTPUT);
```

```
    pinMode(MIDLED, OUTPUT);
```

```
pinMode(HIGHLED, OUTPUT);  
pinMode(MOTOR, OUTPUT);  
digitalWrite(LOWLED, HIGH);  
digitalWrite(MIDLED, HIGH);  
digitalWrite(HIGHLED, HIGH);  
digitalWrite(MOTOR, LOW);
```

```
Serial.begin(115200);  
pinMode(PIN_TRIG, OUTPUT);  
pinMode(PIN_ECHO, INPUT);  
}
```

```
void loop() {
```

```
    // Start a new measurement:
```

```
    digitalWrite(PIN_TRIG, HIGH);  
    delayMicroseconds(10);  
    digitalWrite(PIN_TRIG, LOW);
```

```
    // Read the result:
```

```
    int duration = pulseIn(PIN_ECHO, HIGH);
```

```
Serial.print("Distance in CM: ");  
Serial.println(duration / 58);  
Serial.print("Distance in inches: ");  
Serial.println(duration / 148);
```

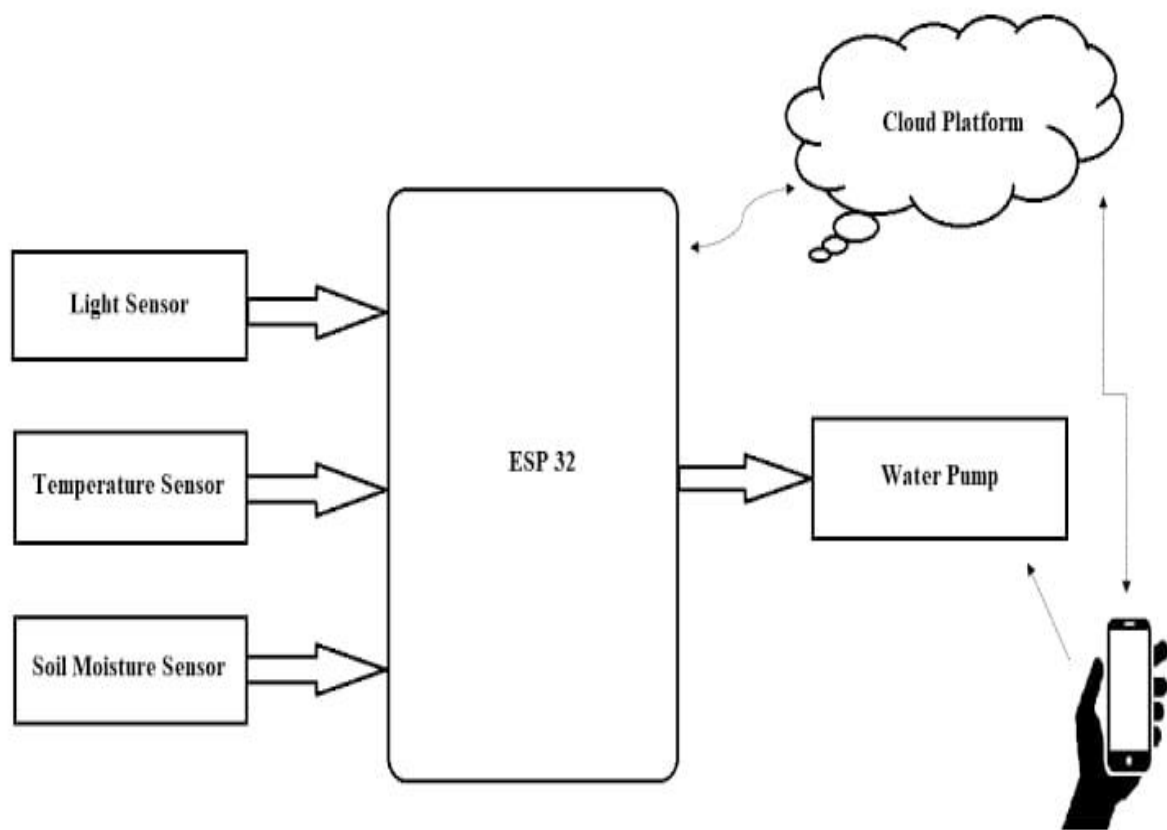
```
level = (duration / 10);
```

```
if(level < 100)  
{  
    digitalWrite(LOWLED, LOW);  
    digitalWrite(MOTOR, HIGH);  
    digitalWrite(HIGHLED, HIGH);  
    digitalWrite(MIDLED, HIGH);  
}
```

```
else if ((level > 200 ) && (level < 400))  
{  
    digitalWrite(LOWLED, HIGH);  
    digitalWrite(HIGHLED, HIGH);  
    digitalWrite(MIDLED, LOW);  
}
```

```
else if (level >= 400 )  
{  
    digitalWrite(HIGHLED, LOW);  
    digitalWrite(MIDLED, HIGH);  
    digitalWrite(LOWLED, HIGH);  
    digitalWrite(MOTOR, LOW);  
}  
delay(1000);  
}
```

BLOCK DIAGRAM:



Output:

load:0x40080400,len:2972

entry 0x400805dc

Distance in CM: 192

Distance in inches: 75

Distance in CM: 192