

IBM NAAN MUDHALVAN-INTERNET OF THINGS(IOT)GROUP 4

Phase 1:

Project submission

Topic:

Smart Parking

Team Members:

K.Divyadharshini

R.Dhanashree

G.Jamuna

M.Kaviya

M.Kaviya

College name:

SSM Institute of Engineering and Technology,Dindigul

College code: 9221

Project Objective:

Our goal is to design a smart water fountain that can monitor the water quality and automatically replace water when is polluted(not healthy) or running out. We will use sensors to measure the water quality. Common water quality measurement factors include temperature, Ph-value, conductance, turbidity and hardness .We choose temperature, Ph-value and conductance to be the three properties used for calculating water quality in our water fountain. These data will be collected, calculated, and reflected to the user in terms of “Good”, “Average” and “Bad”. The water fountain is also designed to self-filter the water every time when water is pumped through the submersible water pump.

Design procedure:

Problem domain:

To define a specific objectives for creating smart water fountain to the pets in the home to ensure its health by providing pure water using filters in it.

IOT Sensor Design:

IOT sensors are used to measure various parameters of water quality, such as pH, temperature, dissolved oxygen, and the presence of chemicals and microorganisms.

Connecting With Mobile:

To develop a mobile app through which the user can monitor its working system and can start and stop the working of the project when not in use.

Program:

Code:

```
int sensor =A6;

int redled =12;

int greenled=11;

int pump =10;

void setup()

{

    pinMode(sensor, INPUT);

    pinMode(redled, OUTPUT);

    pinMode(greenled,OUTPUT);

    pinMode(pump,OUTPUT);

}

Void loop()

{
```

```
int sensor_value =analogRead(sensor);
```

```
if (sensor_value>REF)
```

```
{
```

```
digitalwrite(greenled,HIGH);
```

```
digitalwrite(redled,HIGH);
```

```
digitalwrite(pump,HIGH);
```

```
delay(70);
```

```
}
```

```
else
```

```
{
```

```
digitalwrite(greenled,LOW);
```

```
digitalwrite(redled,LOW);
```

```
digitalWrite(pump,LOW);
```

```
delay(70);
```

```
}
```

```
}
```