COLLEGE NAME : PRIYADARSHINI ENGINEERING COLLEGE

COLLEGE CODE : 5119

COURSE NAME : INTERNET OF THINGS (IOT)

GROUP NUMBER : GROUP 2

PROJECT TITLE : SMART WATER FOUNTAIN

PROJECT SUBMITTED TO : SKILL UP ONLINE

YEAR : 3

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SMART WATER FOUNTAIN

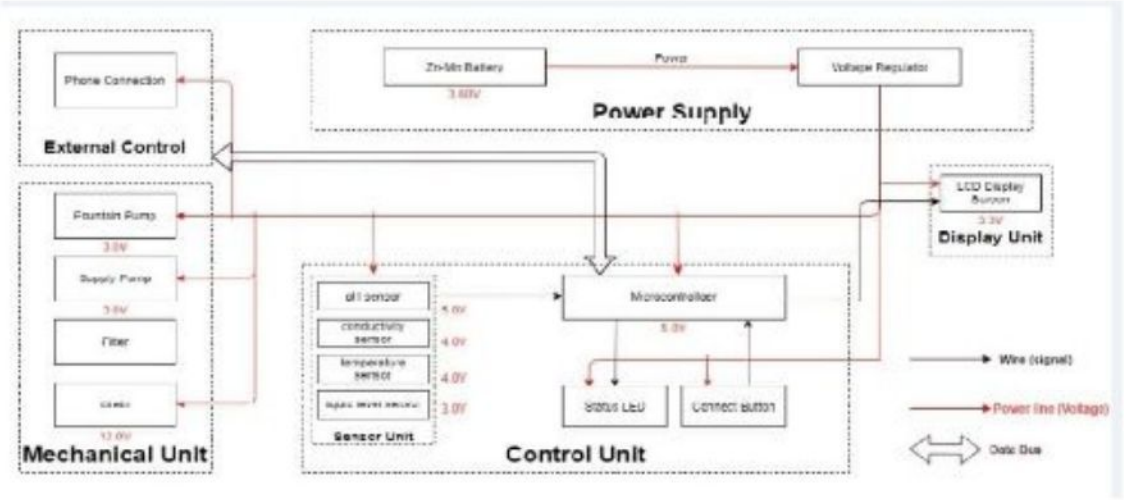
PHASE-2

INNOVATION

Introduction:

Our goal is to design a smart water fountain that can monitor the water quality and automatically replace water when polluted(not healthy) or running out.We will use sensor to measure the water quality.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,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 throught the submersible water pump.

Block Diagram:



Sensor Unit:

This block contains the four sensors.The data acquired from the sensors will be transmitted to the control unit.Control unit will then have some logic designed to send corresponding signals to control other blocks of the water fountain.

Temperature Sensor:

A water proof temperature sensor is going to be used.Part number from sparhfun

is:DS18B20[6].This temperature sensor is compatible with a relatively wide range of power supply from 3.0 to 5.5V.

PH-sensor:

PH-value is a valued indicator of water quality.This PH-sensor[7] works with 5V voltage,which is also compatible with the temperature sensor.

Power Supply Unit:

Zn-Mn Bttery

The Zn-Mn must be able to continuously support the functioning of the circuit, diplay, unit and the mechanical unit.

Voltage Regulator:

The integrated circuit will regulate the power supply for each module to maintain their functionality.