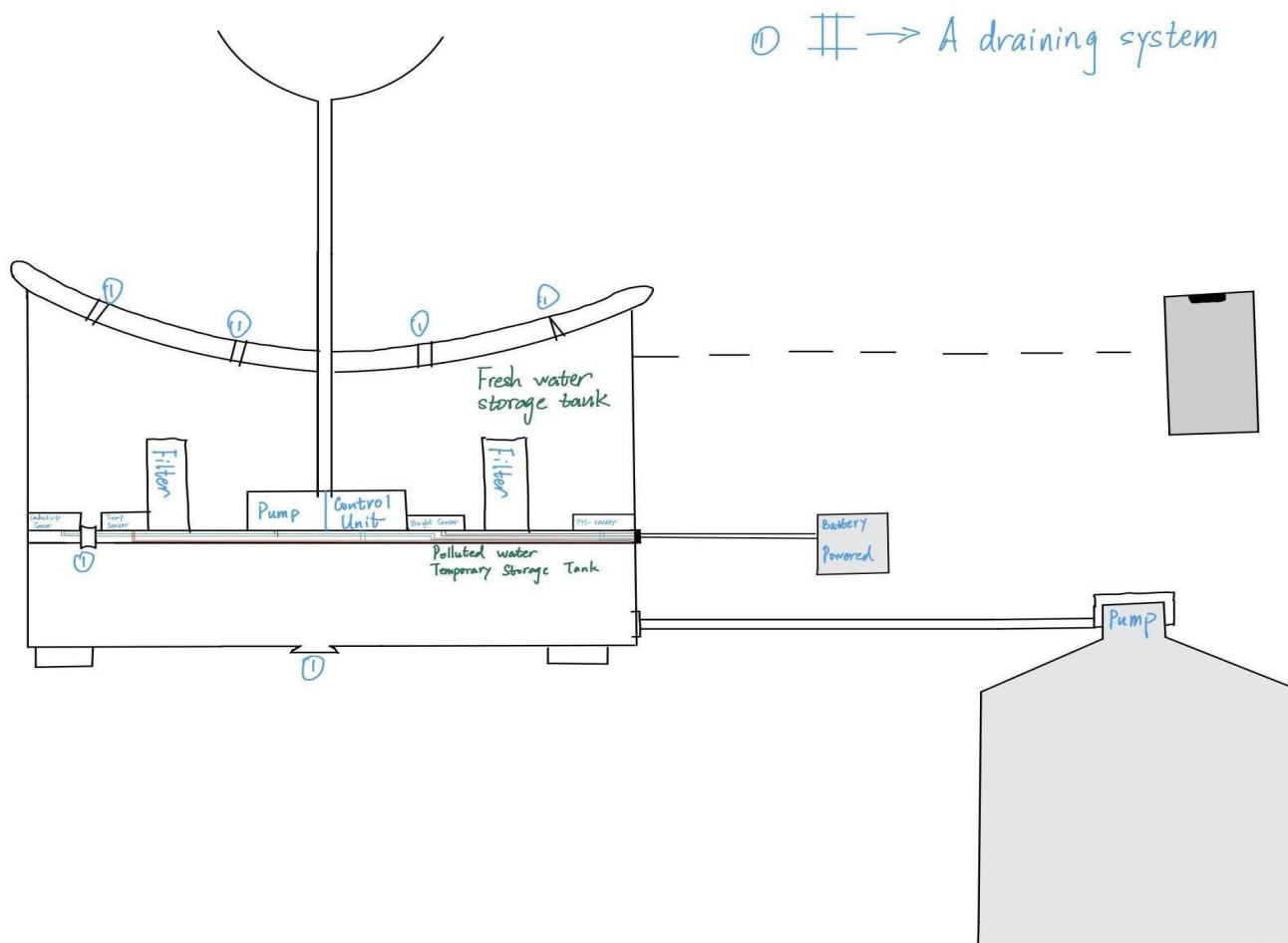# SMART WATER FOUNTAINS - PHASE 2 PROPOSAL

Problem statement:

Design and implement Smart Water Fountains that can provide clean and safe drinking water to the public while minimising water wastage and ensuring the availability of water at all times.

Physical Design:

A pictorial representation of the project that puts the solution in context. Not necessarily restricted to your design. Include other external systems relevant to your project (e.g. if your solution connects to a phone via Bluetooth, draw a dotted line between your device and the phone).

Design:

The block diagram below is a general design of our solution. We divide our design into four modules, including Power Supply, Control Unit, External Control, and Mechanical Unit. Details of each unit is presented in the diagram and described in the

next section.

External Control
Phone Connection

Power Supply
Zn-Mn Battery
3.60V
Power
Voltage Regulator

Mechanical Unit
Fountain Pump
3.0V
Supply Pump
3.0V
Filter
Drain
12.0V

Sensor Unit
pH sensor   5.0V
conductivity sensor   4.0V
temperature sensor   4.0V
liquid level sensor   3.0V

Control Unit
Microcontrolloer
5.0V
Status LED
Connect Button

Display Unit
LCD Display Screen
3.3V

Wire (signal)
Power line (Voltage)
Data Bus