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The name of my application is Irrigate the soil 1.0 ,this application can determine the moisture of the soil, read the temperature of the soil , configure a time interval for water dispensal and can be able to detect if theres a lack of water in the tank, it also comes with a password.

The design of my application from the software development cycle is as follows:

**PLANNING—ANALYSIS—DESIGN—IMPLEMENTATION—
TESTING—MAINTENANCE.**

PLANNING: My application was created in order to improve the irrigation issues inquired by the ABUAD farm during the dry season. This application will be programmed into a machine that will not only be able to provide water at all times to the soil but also read the temperature and moisture of the soil so as to tell when water is needed.

ANALYSIS: Millions of bytes of data analysis was integrated into my algorithm design:

1. The average temperature of the soil
2. Time intervals for the moisturization of the soil to keep it healthy

DESIGN: The design will be represented in a well structured algorithm.

IMPLEMENTATION: A code using C++ was implemented on the algorithm so that it could be understood by the machine.

TESTING: The application was successfully tested on the ABUAD farm and it was able to satisfy the certain function imposed on the machine by the code.

MAINTENANCE:The hardware of the device would be regularly serviced and updates for the program would be released fort nightly.

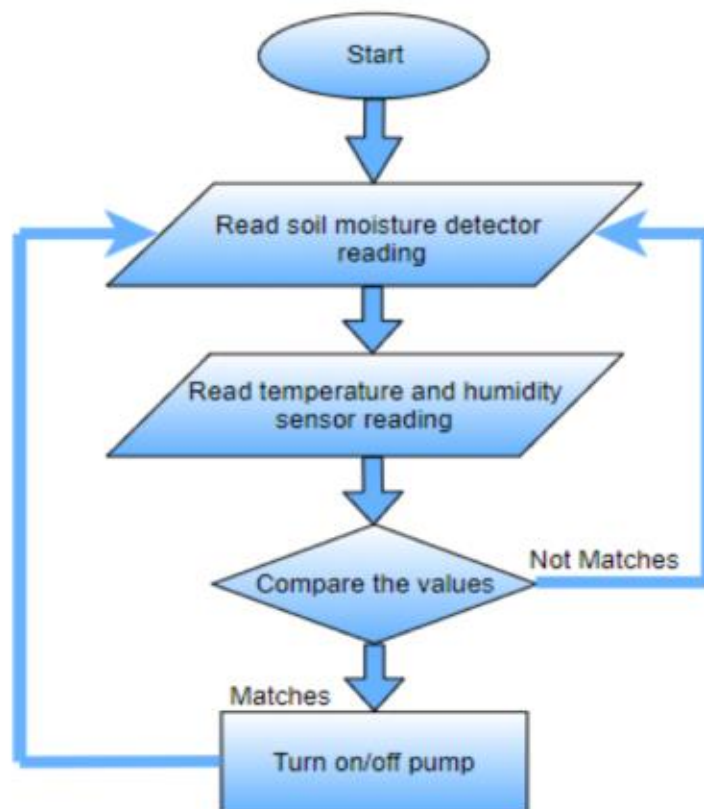
HARDWARE COMPONENTS

The hardware components of my machine includes Arduino which is a device based on clean to use hardware and software, it is programmed with C++. My machine also has moisture sensors, a temperature sensor and a water level sensor.

SOFTWARE COMPONENTS

My application was created by a C++ code. It has an automated system with a wireless network throughout the farm.

FLOWCHART



ALGORITHM

1. Start
2. Enter password
3. If password correct
4. Print 'Home Page'
5. Else

6. print' Main Page'
7. Open home page
8. Read temperature of soil
9. If above 40 degrees
10. Sprinkler rise
11. Else
12. Sprinkler remains dormant

