Green Smart Gardening System Design

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Abstract

1 Introduction

My group is tasked with building a Green Smart Gardening System that automates gardening and farming processes. A scaled up version of our design would tend vineyards or orchards. The hardware used will consist of a sensor array, a solar panel, and a connected microcontroller, as well as a remote desktop computer connected to the microcontroller via wi-fi.

I am in charge of the display and storage of data, as well as the implementation of our application as a web-based UI. Our project involves collecting environmental data from a garden with a microcontroller and then displaying this data to users. For starters we need an application stack with an HTTP server, a database, and a PHP interpreter. We also need to select the correct database storage engine for our application, to store data in a way that can be graphically displayed. Finally we need a graphics application that will allow us to display our data in clear and interesting ways. Users will login to our web application where they can view interesting and colorful displays of data sorted in our database that came from wi-fi transmissions from a microcontroller.

2 Server Database Interpreter Stack

3 Graphical Display

Selection: D3js

References

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