



# **Green Smart Gardening Systems**

## Fall Term Progress Report

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# Progress Report

- Purpose of this Document
- Audience



# Intro

- Overview of Project
- Our Term
- Where We Are Going



# Overview of Project

- Our Project
- The User
- Specifics



# Our Project

- Our Device
- Its Purpose
- Its Specifics



# The User

- Original User
- User's Benefit



## Specifics

- Microcontroller
- Air & Soil Sensors
- Green Power
- Wireless Connectivity
- User Interface



## Our Term

- TA Meetings
- Client Meetings
- Work Addressed
- Assignment Descriptions





# Week 1

## TA Meeting

- N/A

## Client Meeting

- N/A

## Work Addressed

- Submitted Project Preferences



## Week 2

### TA Meeting

- N/A

### Client Meeting

- N/A

### Work Addressed

- Group Officially Assigned
- Group Meeting
- Contacted Clients
- Began Individual Problem Statements



# Problem Statement

Individual Document  
Verification Not Required

- Define & Describe Project
- Discuss with Client
- Rough Draft



# Week 3

## TA Meeting

- First TA Meeting
- Recommended More Initiative Contacting Client
- TA's Specialty: Mobile Apps, UI, & Web Design

## Client Meeting

- Met Clients
- Set Up Weekly Meeting
- Clients Elaborated Project
- Action Items
  - Post Email & GitHub
  - Post Term Calendars
  - Post Upcoming Assignment Calendars

## Work Addressed

- Completed Individual Problem Statements



# Week 4

## TA Meeting

- Provided Tips on Document Framework

## Client Meeting

- Improved Group Understanding of Project
- Action Items
  - Look Into Sensors
  - Look Into Solar Power

## Work Addressed

- Began & Completed Group Problem Statement
  - Submitted to GitHub & Client



# Problem Statement

Group Document  
Verification Required

- Define & Describe Project
- Final Draft



# Week 5

## TA Meeting

- Defined Requirements Criteria & Formatting
- Discussed Hardware Resources

## Client Meeting

- Discussed Researched Components
- Action Items
  - Create System-Level Block Diagram

## Work Addressed

- Began Requirements Document
- Researched Environmental Sensors
- Researched Solar Power



# Requirements Document

Group Document  
Verification Required

- The What
- Our Product
- The User
- Client Requirements
- Constraints





# Week 6

## TA Meeting

- Touched Base on Week's Work

## Client Meeting

- Discussed Stretch Goals
- Started Covering Microcontrollers
- Continued Looking Into Solar
- Action Items
  - Component Wishlist
  - Look Into Server Implementations

## Work Addressed

- Created Block Diagram
- Completed Group Requirements Document
  - Submitted to GitHub & Client
- Began Technology Review



# Technology Review

Individual Document  
Verification Not Required

- The How
- Define Pieces of Project
- Discuss Solutions



# Week 7

## TA Meeting

- Checked in on Week's Work

## Client Meeting

- Discussed Chosen Components
- Covered Possible Microcontrollers
- Action Items
  - Finalize Hardware List
  - Continue Researching Server Options
  - Contact OSU Greenhouse for Testing

## Work Addressed

- Determined Division of Technology Review
- Continued to Work on Technology Reviews
- Researched Microcontrollers
- Completed Client Component Wishlist



# Week 8

## TA Meeting

- Checked on Group Progress
- Provided Suggestions for Technology Review

## Client Meeting

- Discussed Chosen Microcontroller
- Covered Finalized Component List
- Looked at Server Options
- Action Items
  - Component Availability in Capstone Lab

## Work Addressed

- Testing Approved by OSU Greenhouse
- Completed Individual Technology Reviews
  - Submitted to GitHub



# Week 9

## TA Meeting

- Canceled for Thanksgiving

## Client Meeting

- Canceled for Thanksgiving

## Work Addressed

- Consumed Turkey



# Week 10

## TA Meeting

- Clarified Design Document Requirements

## Client Meeting

- Discussed Greenhouse Approval
- Finalized Microcontroller Choice
- Address for Components Delivery

## Work Addressed

- Broke Up Pieces of Design Document
- Completed Rough Draft of Design Document
  - Sent to Clients for Approval
- Completed Final Draft of Design Document
  - Submitted to GitHub & Clients
- Began Progress Report



# Design Document

Group Document  
Verification Required

- The Roadmap
- Determined Assignments
- Design Components



# Progress Report

Group Document  
Verification Not Required

- Written Report
- Video Presentation





# Where We Are Going

- Where We Are
- What's Next



## Where We Are

- Soil Sensors
- Air Sensors
- Power
- Board Logic
- Wi-Fi
- Web Application
- Database
- Displaying Data
- Packaging



# What's Next

