

## **TBD Gardening Project Name - Group 9**

Team members:

Nicholas Chitty

Brendan College

Scott Peirce

Justin Pham-Trinh

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# **1 Narrative**

## **1.1 Problem**

## **1.2 Narrative**

## **1.3 Goals**

# **2 Requirements**

## **2.1 MCU**

### **2.1.1 Minimum Viable Product**

### **2.1.2 Stretch**

## **2.2 Power**

### **2.2.1 Minimum Viable Product**

### **2.2.2 Stretch**

## **2.3 Sensing**

### **2.3.1 Minimum Viable Product**

### **2.3.2 Stretch**

## **2.4 Web**

### **2.4.1 Minimum Viable Product**

The web component of the project should:

- Attach to a weather API to receive:
  - Rain
  - Sun light
  - Temperature
  - Frost warnings
  - Humidity

- Alert users of conditions outside of automatic control (i.e. soil composition and frost)
- Change control parameters:
  - Sun light
  - Water
  - Soil parameters
- Have an intuitive user interface
- Communicate with the MCU

#### **2.4.2 Stretch**

It would be nice to have the web component:

- Set control parameters based on presets for plants
- Get plant data from the web to pass to MCU
- Communicate over secure channels

## 3 Block Diagrams

### 3.1 MCU

### 3.2 Power

### 3.3 Sensing

### 3.4 Web

## 4 Project Management

### 4.1 Budget

### 4.2 Finance

### 4.3 Milestones

#### 4.3.1 Fall

#### 4.3.2 Spring