

# Requirements Specification

## 1. Functional Requirements

- **Taking and sending information:** Users can send a message and receive information from the system.
- **Sending information by system:** System can send information to the user regularly.
- **Filling the tank:** Users can fill the tank with the help of given information from the system.
- **Changing irrigation plan:** Users can irrigate the plant or cancel the next irrigation via sms message.
- **The measurements that water level and soil moisture level:** System measures that the water level, soil moisture level.
- **Irrigation time:** With the help of the real time clock, system reach information about the irrigation times.
- **Irrigation process:** System reaches the water pump and with the help of this, irrigates the plant.
- **Locations for energy production:** System can change the position of the solar panel via servo motors and trace the sun, this process produces energy for the battery.
- **LCD display information:** System shows the information that needed via the LCD screen.

## 2. Non-Functional Requirements

- **Security:** User should write your own unique password before the command.
- **Portability:** System will be inside the box and users easily change the position of the system.
- **Accessibility:** User reach the system via sms messages.
- **Testability:** Every function in the project written too simple and can test easily.

- **Maintenance:** Correcting the system and sensors in the event of a fault in the sensors or system.
- **Modularity:** System should allow addition of more modules or more users in any module when it is required.
- **Updateable:** System improvements and updates are made and presented to the user.