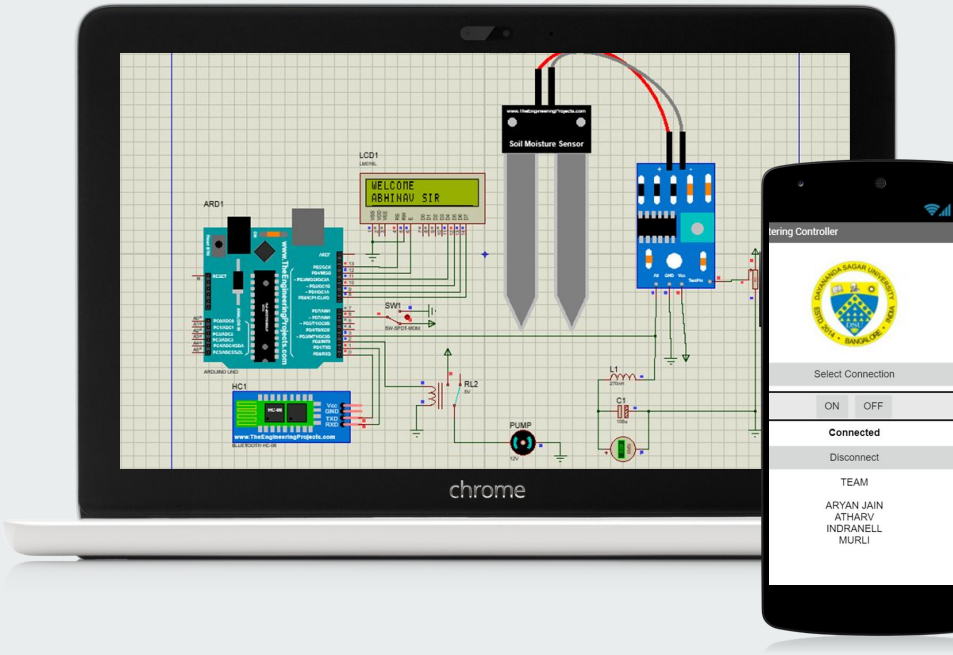
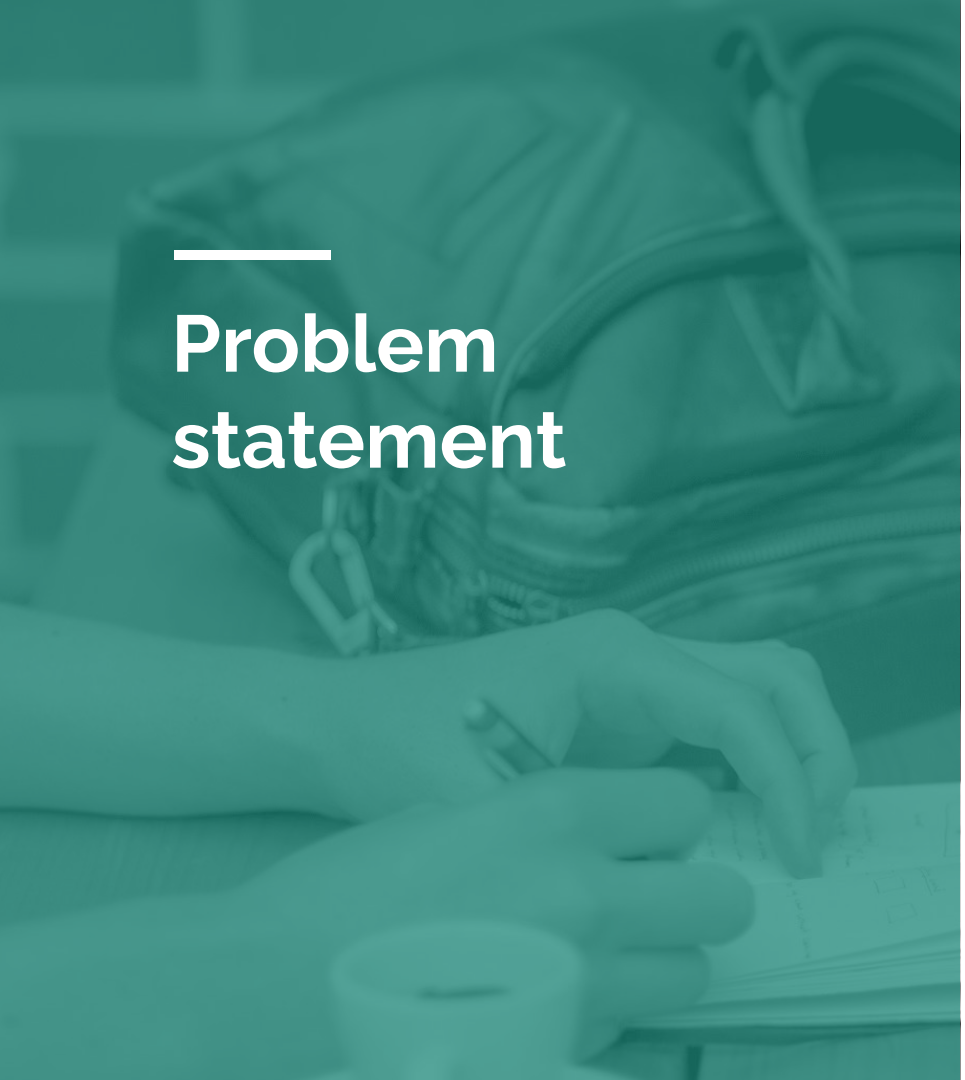
Plant Watering System



Outline of the Project

- The Problem Statement
- Solution Flow Chart
- BOM
- Block Diagram
- Layout
- Application
- Future Scope

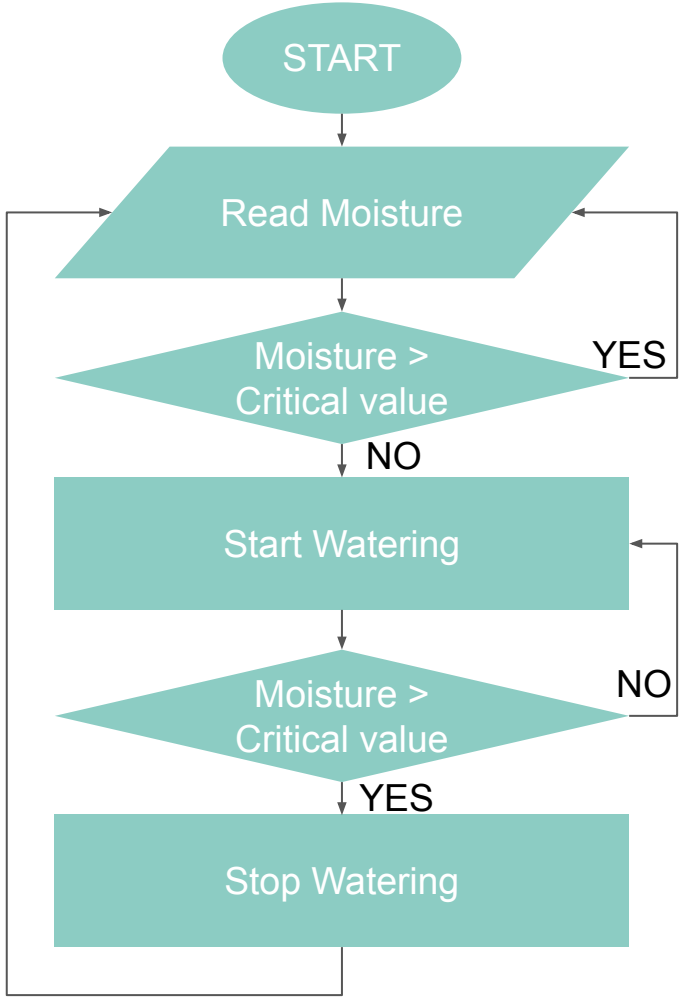


Problem statement

To create a system for automatic plant watering, using 8051.

- In daily operations related to farming or gardening, Watering
  is the most important cultural practice.
- This manual process of watering requires two important aspects to be considered : When and how much to water.
- The aim of project is to minimize the manual intervention by the user.

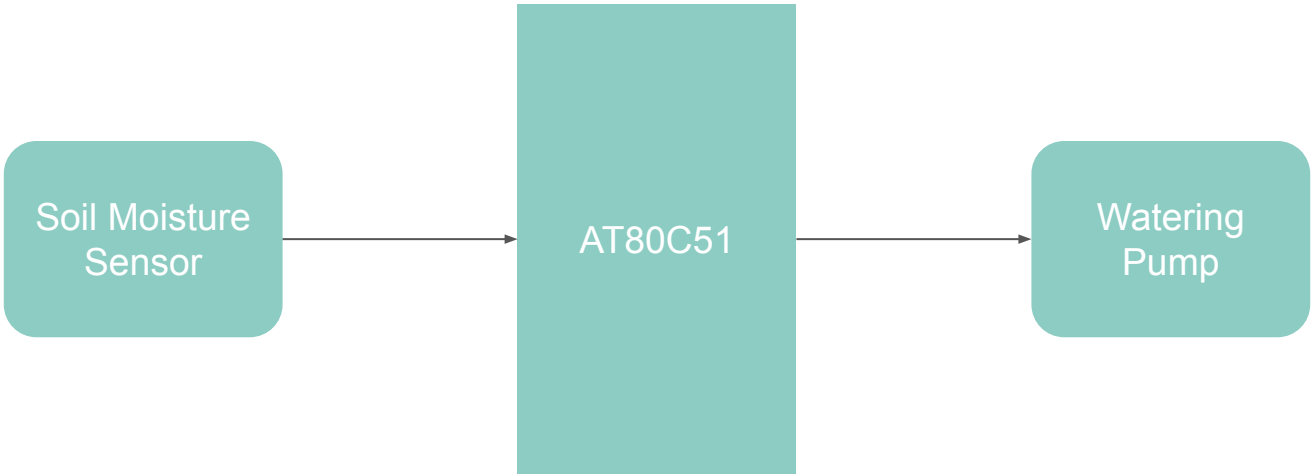
Solution Flow Diagram



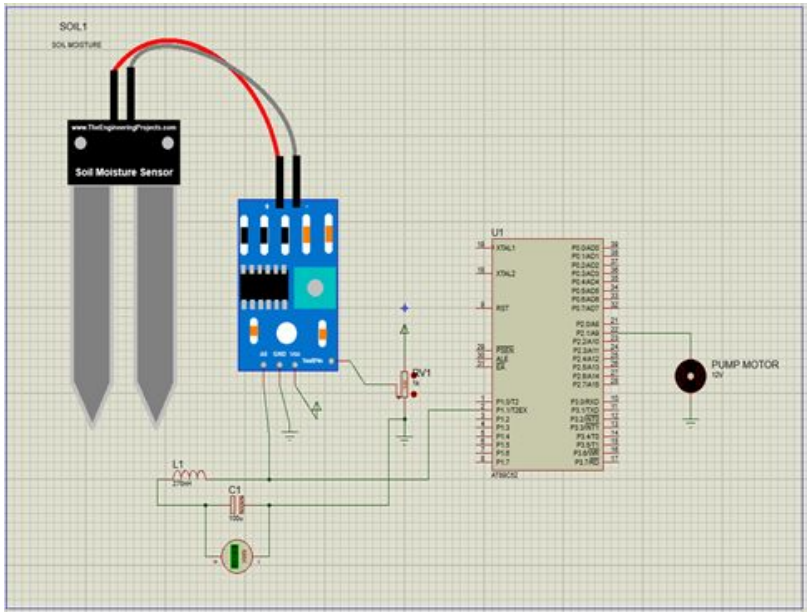
BOM

Components	Specifications		Market Price
YL-69	Vcc power supply Current o/p voltage	3.3V-5v 35mA 0-4.2V	₹ 80/-
Pump	Power supply Power Rating Motor power	230V 0.37kW 0.5HP	₹ 50/-
AT80C51	ROM RAM Data memory	4kB 128b 65K	₹ 400/-
Arduino UNO	Clock Operating Voltage SRAM	16MHz 5V 2KB	₹ 450/-
Connectors		-	₹ 50/-

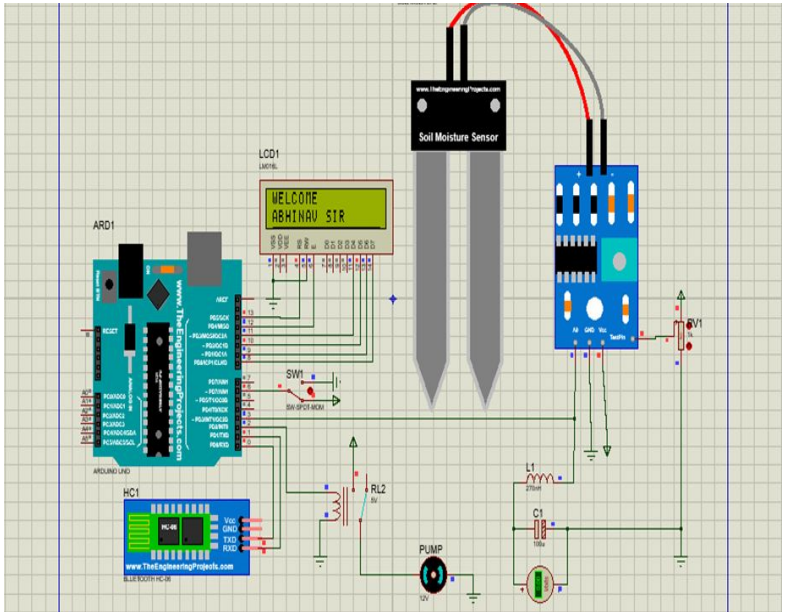
Block Diagram



Layout



AT80C51



ARDUINO UNO

Applications

- This project can be used as a message provider.
- Works as an automatic plant irrigation system.
- The project can not only be used in farms but also huge industries to provide status of Environment, Roof Gardens, Lawns and home gardens.

Future Scope

- Multiple plants can be watered by increasing the no. of sensors in the system.
- GSM can be used so that the user can be notified whether his plants are required to be watered or not.
- IOT can be used to inform the user about the status of the motor.