



Basic Details of the Team and Problem Statement

Organization Name/Student Innovation: AICTE, MIC-Student Innovation

PS Code: 1478

Problem Statement Title: Student Innovation

Team Name: Agri CMSD

Team Leader Name: Vishal V

Institute Code (AISHE): C-16576

Institute Name: Chennai Institute of Technology

Theme Name: Agriculture, Food Tech & Rural Development

Idea/Approach Details

SOLUTION

PROBLEM STATEMENT:

Excessive fertilizer use and soil degradation in agriculture.

SOLUTION:

■ Our mission:

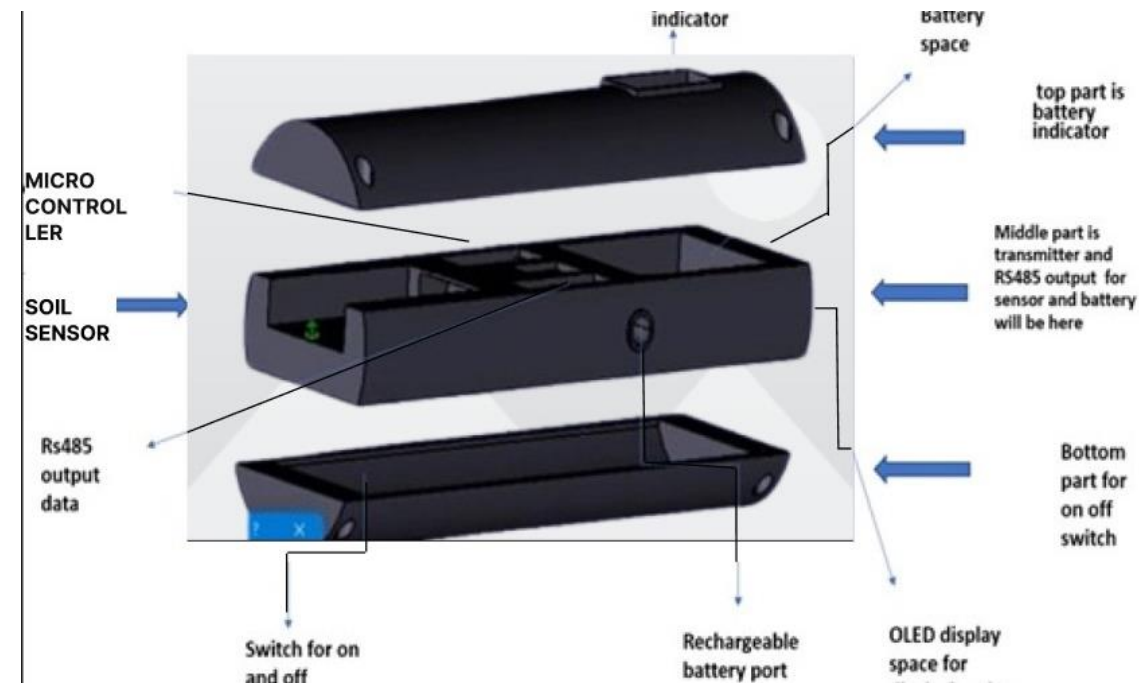
Unveil the groundbreaking Soil Quality Tester to conquer agricultural challenges!

■ Revolutionizing Farming:

Tackling Fertilizer Overuse and Soil Decline with Real-time Data.

■ Expanding Benefits:

Elevating Sustainability, Efficiency, and Crop Quality for Farmers, Environment, and Labs.



TECHNOLOGY STACK

TOOLS AND TECHNOLOGIES:

1. Microcontroller
2. Sensor Technology
3. Communication Protocol
4. Display (OLED)

PLATFORM:

1. Embedded Systems

Idea/Approach Details

USE CASES

- 1. Improve Food Quality:** Modified NPK Soil sensors are deployed to enhance food quality: Healthier, tastier, more nutritious crops.
- 2. Cost Saving:** Boosting profits: Real-time data optimizes farming expenses.
- 3. Soil Health Monitoring:** Continuous monitoring promotes long-term soil health.
- 4. Remote Monitoring:** It empowers farmers for convenience and quick issue response.
- 5. Environmental Impact Assessment:** Soil Quality Tester informs policymakers, shaping sustainable agriculture.
- 6. Precision Farming:**
Real-time data cuts waste, boosts crop yield.

SHOW STOPPERS

- Weak Wi-fi connection may lead to varying monitoring rates.
- Improper handling can damage the product.

Team Member Details

Team Leader Name: Vishal V

Branch: B.E

Stream : ECE

Year : III

Team Member 1 Name: Sanjay Kumar R

Branch : B.E

Stream : ECE

Year : III

Team Member 2 Name: Sathyamoorthy A

Branch : B.E

Stream : ECE

Year : III

Team Member 3 Name: Vamsika S

Branch : B.E

Stream : ECE

Year : III

Team Member 4 Name: Chinni Pavani

Branch : B.E

Stream : CSE

Year : III

Team Member 5 Name: Shaik Sana

Branch : B.E

Stream : CSE

Year : III

Team Mentor 1 Name: R. Sivanesan

Category: Industry

Expertise: Embedded Systems

Domain Experience:5 Years

Team Mentor 2 Name: K. Praveen

Category: Academic

Expertise: IOT

Domain Experience: 12 Years