Group: MMH : EcoTech Division

Plantagotchi

The Problem

Silent Suffering

- Plants can't express when they're stressed or neglected.
- Existing apps are complex and hard to use.

Research:

- **69%** New/Gen Z owners lost at least one plant (mainly **over water issues**)
- 1 in 4 Americans doubt their houseplant would survive six months.

Our Goal

Make plant care simple, fun, and engaging – through a playful app that reacts to your real plant's health.

The Solution

Animated App

A hand-drawn Plantagotchi avatar turns sensor data into emotions and playful speech, with weather-reactive scenes and streaks that keep care fun.

Record real-time needs

We continuously capture soil moisture, temperature, and humidity, calibrate to each plant/pot , smooth noise, and store readings .

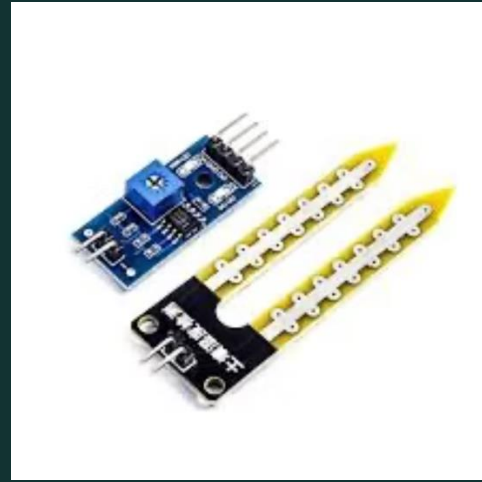### Provide instructions to take appropriate action

The app delivers clear, prioritized actions with exact doses
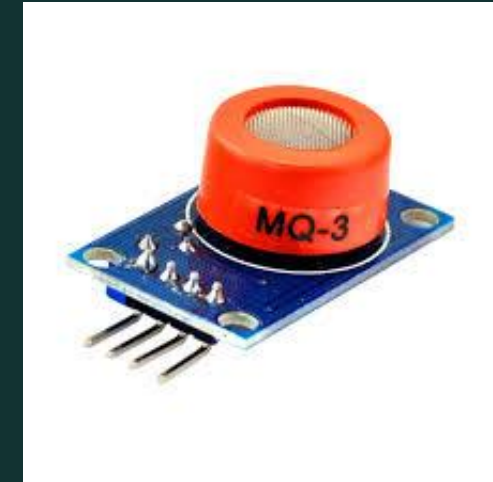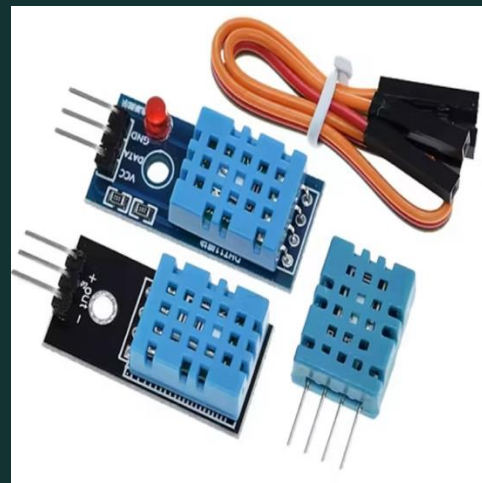
DEMO

Hardware used

Raindrops Detection
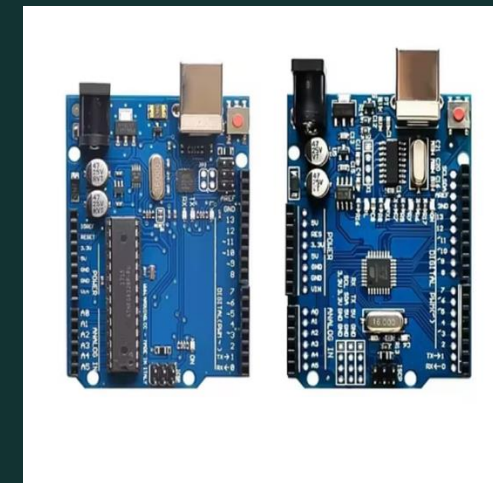

Soil moisture detector

Mq3 Alcohol sensor

BioAMP EXG Pill

Digital temperature and humidity sensors

Arduinxo

Tech used
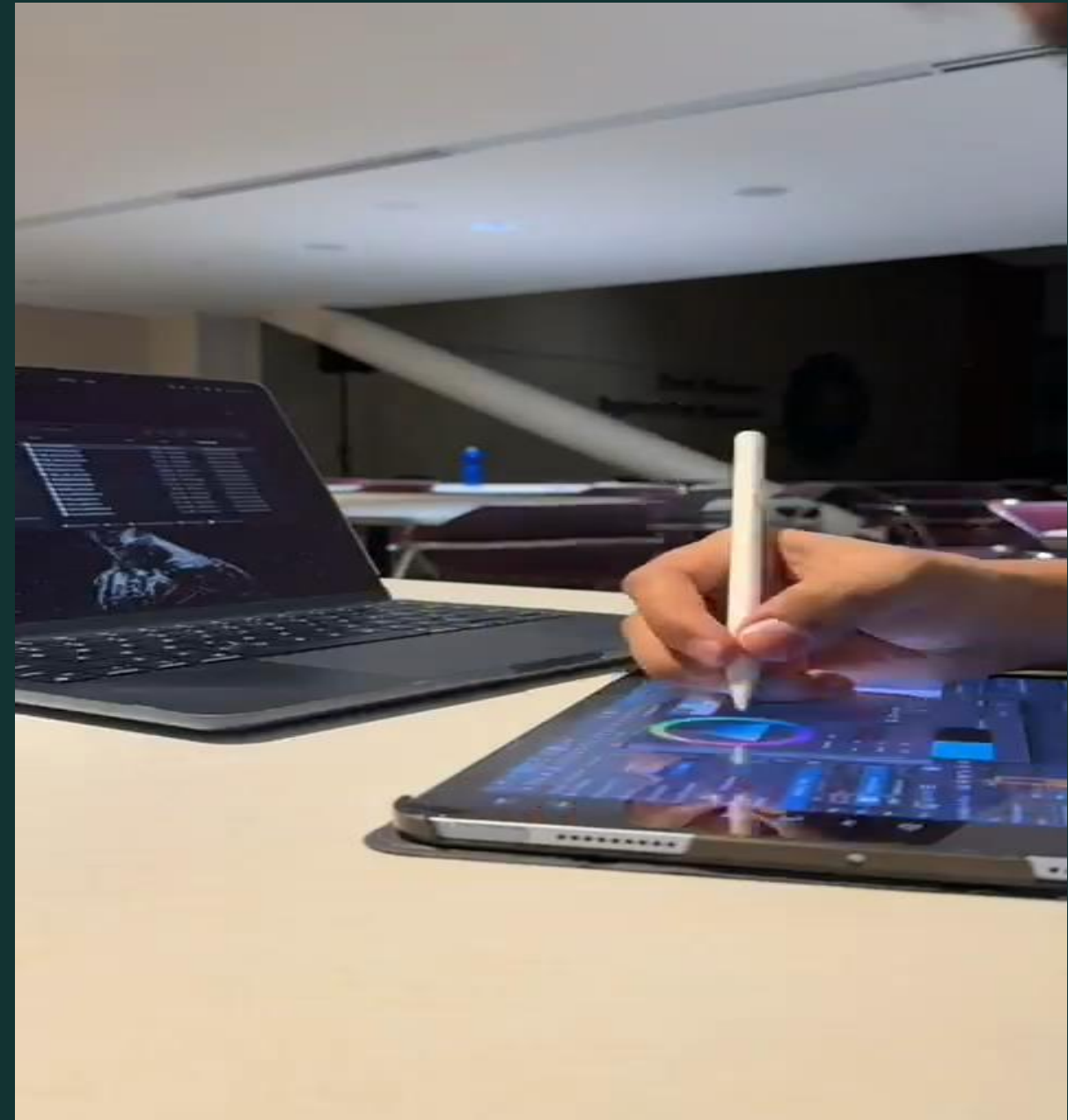

React Native

Built a full cross-platform mobile app for real-time plant monitoring and animated UI.

Pl@nt.net ML

Integrated ML model to recognize and analyze plant species.

Handmade GUI (NO AI!)

Competitor Analysis

- **Avatar** > **charts**: Hand-drawn Plantagotchi turns vitals into emotions and plain-English actions (not dashboards).

- **Exact care-doses:** Gives a specific amount learned from your pot's real moisture response.

- **One-screen care mode:** Simple UI with health bars and one big "do this now" action—zero learning curve.

- **Others give data or reminders, Plantagotchi gives a living coach that tells you exactly what to do, when, and why.**

MARKET

25 BILLION DOLLARS

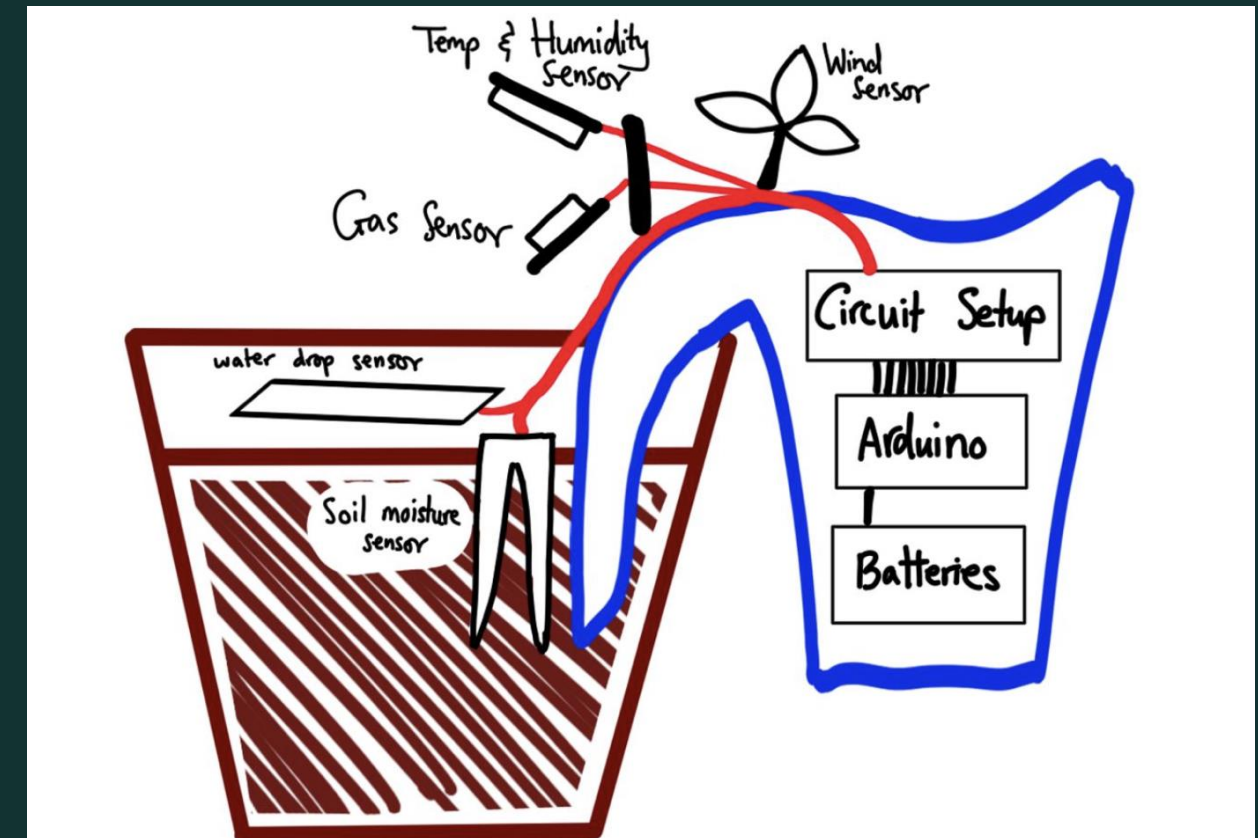3 BILLION DOLLARS

30 MILLION DOLLARS

5000 CUSTOMERS

175,000 DOLLARS

Business Model

- Arduino : $1.64
- Mq3 Alcohol sensor : $1.5
- Raindrops Detection : $0.69
- Soil moisture detector : $0.57
- Digital temperature and humidity sensors : $0.63
- Breadboard : $0.44
- Anemometer : approx. $10

Total cost = Approx $18 (bulk)

We can sell it for $35 to $40
Profit margin: 50%

NOTE: Not true to size

Roadmap & Next Steps: Scaling Our Impact

Scalability & Future Growth

- Support any plant type
- Customizable plant avatars & dashboards
- Live weather & light sync
- Add multiple plant companions
- Detect mold & nutrient issues
- Bluetooth & USB connectivity

Target Audience Expansion

- **Schools:** Adding educational features where students can learn about each plant and experience caring for them in a fun, interactive way.

Meet the EcoTech Innovators

Our dedicated team combines diverse expertise to bring **Plantagotchi** to life, blending technology with environmental science.

Raahim Khan
Project Manager: Leads the project, manages tasks, and keeps everything on track.

Syed Reza Ali Abdi
Researcher/Presenter: Researches plant care trends, finds gaps in existing apps, and helps us build something simpler and more unique.

Muhammad Abdur Rab Siddiqui
Hardware Specialist: Handles all the hardware - wiring the sensors, setting them up, and making sure our app gets real signals from the plant.

Muhammad Zain Asad
UI/UX Designer: Designs the full hand-drawn interface and artwork that give Plantogochi its friendly, personal touch.

Muhammad Salaar Butt
Frontend Developer: Builds the interactive screens and ensures the app looks smooth, fast, and easy to use.

Ahmed Zafar
Backend Developer: Develops the core system that processes plant data and keeps everything running reliably behind the scenes

Why "Plantagotchi"? Inspired by Tamagotchi (Bonus Slide)

The name Plantogotchi comes from Tamagotchi, the classic 90s digital pet that taught responsibility and care through play.

We wanted to bring that same emotional bond into the real world, this time with plants.

Plantogotchi combines technology, play, and environmental empathy, encouraging users to care for living plants just like we once cared for our digital pets.

Join Us in Growing a Greener Future!

Our app bridges technology and nature - helping plants thrive and users connect with their environment like never before.

Thank you, NatHacks judges!

Questions & feedback welcome.