WaterWise: Effortless Plant Care for Busy People

Meet the Team

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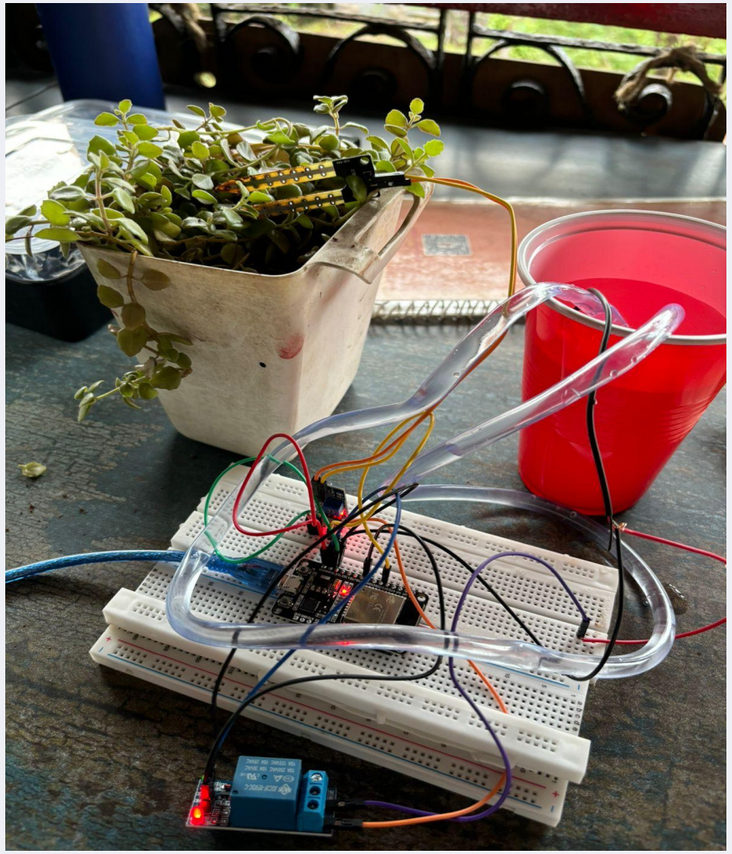
The Problem:

Did you know that one of the earliest home automation systems for plant watering was patented in the 1930s? It used a simple mechanical timer to open a water valve—no electricity or sensors involved!

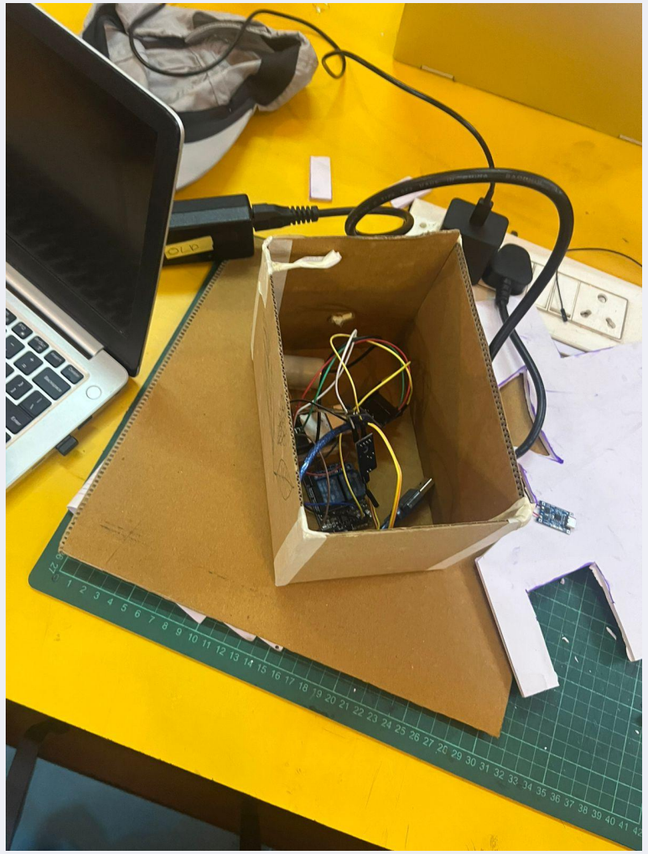
While it might seem like a minor convenience for urban homes, automated plant watering systems are actually part of a much bigger global challenge: water scarcity and sustainable urban living.

Water Conservation:
Automated systems can use moisture sensors and weather data to optimize watering—often reducing water use by up to 50% compared to manual watering.

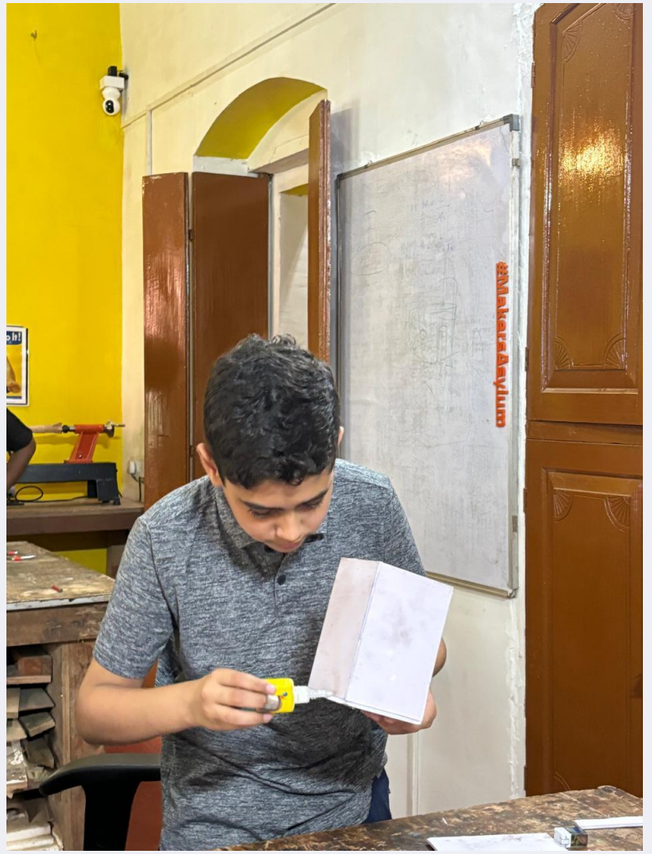
Our Journey with WaterWise:



WORKING HARDWARE

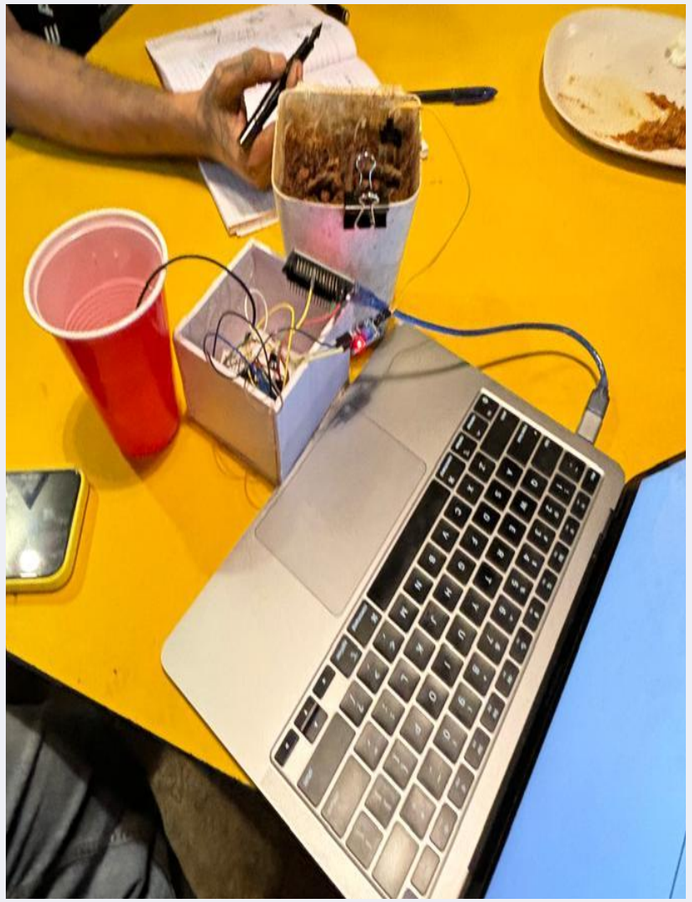


1ST PROTOTYPE USING CARDBOARD



2ND PROTOTYPE WITH FOAM

Our Journey with WaterWise:



3RD PROTOTYPE

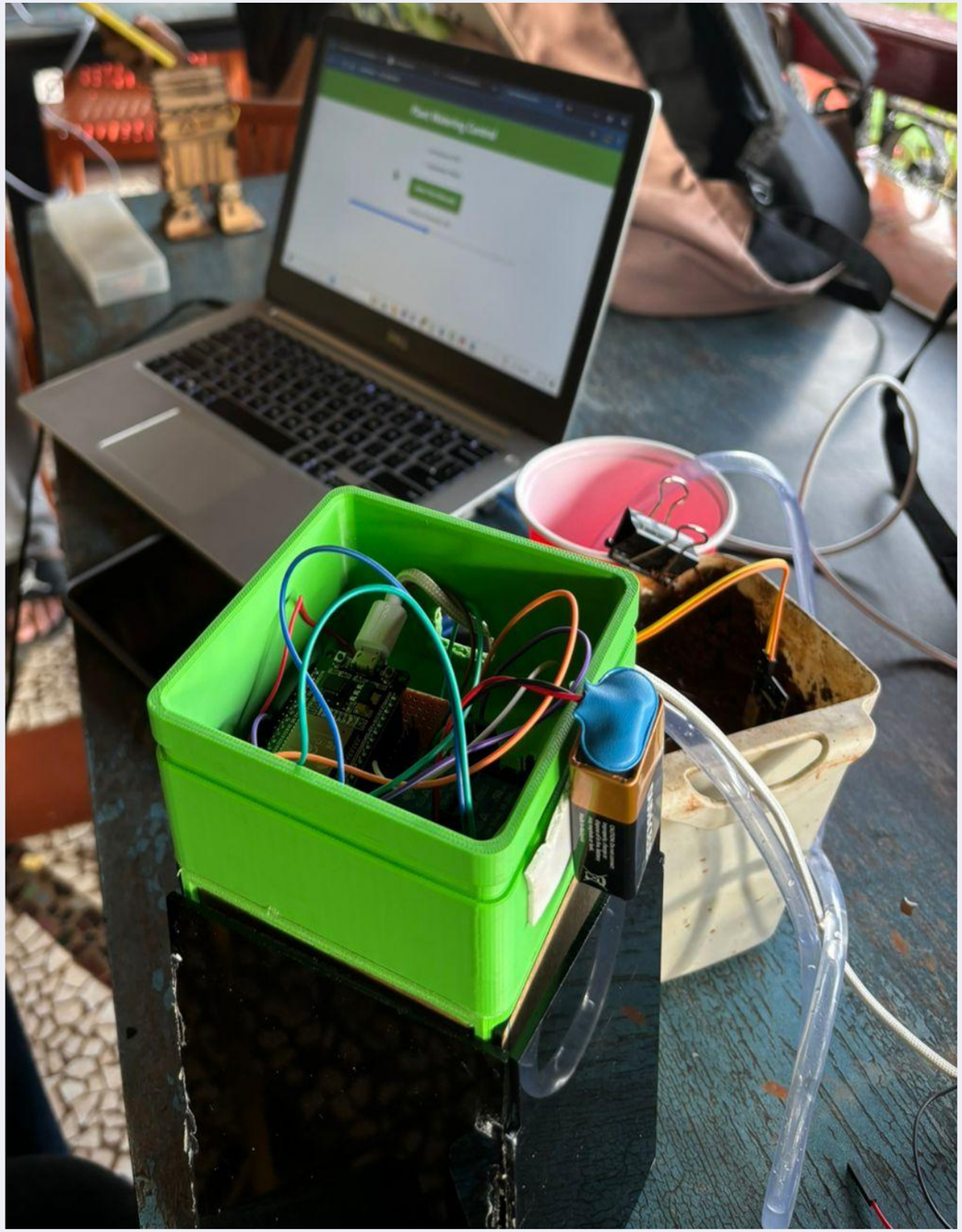
FAILED 3D PRINT ATTEMPT OF FINAL BOX

FINAL CONTAINERS

Challenges We Faced

THERAPY SESSION WITH THE MENTORS
(TEAM DISAGREEMENTS)

CODE NOT WORKING PROPERLY AFTER SEVERAL DEBUGGING ATTEMPTS



Our Solution: WaterWise

Smart Sensors

Uses soil moisture sensors to measure the moisture levels in soil .

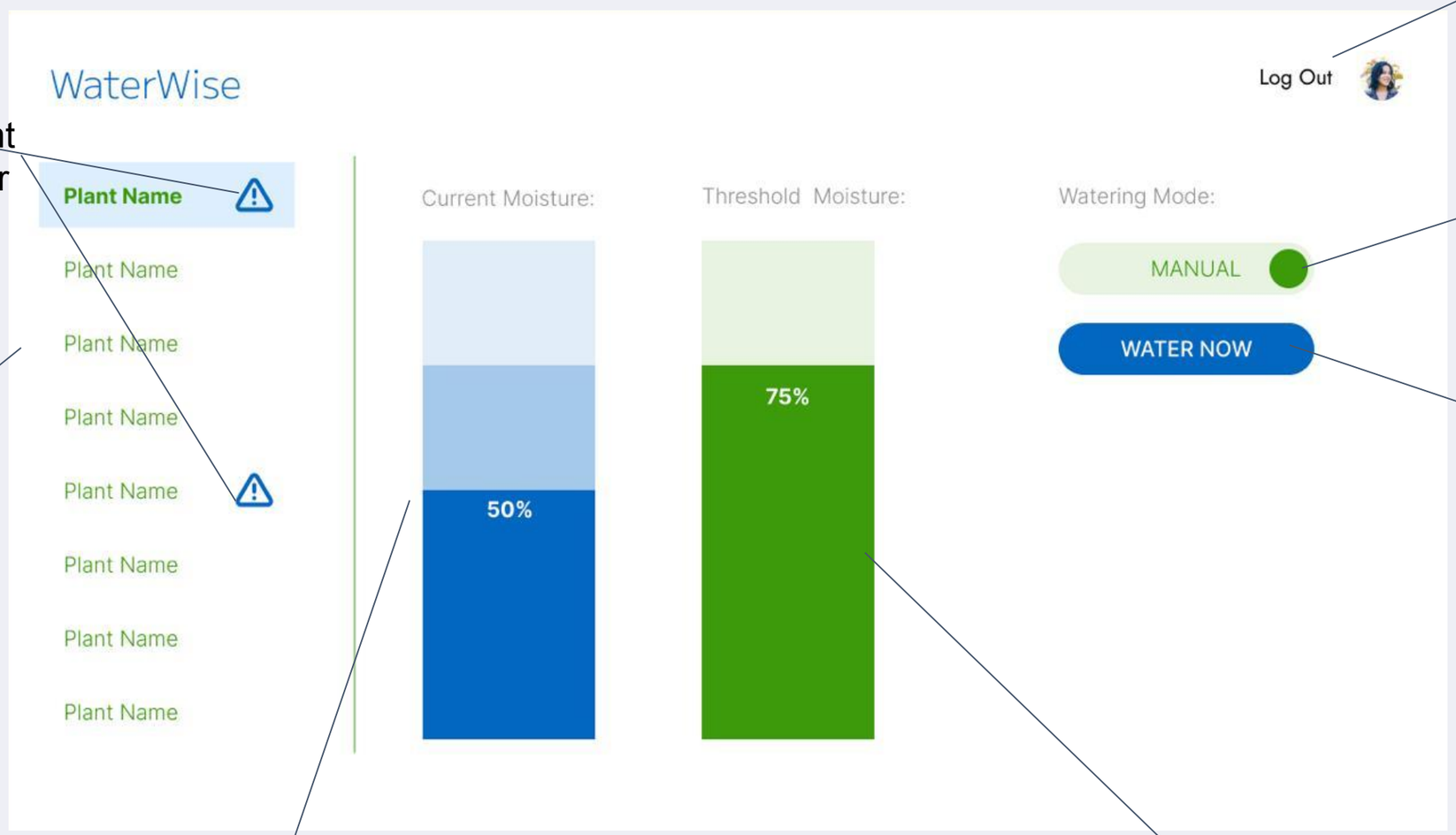
Automated Watering

Delivers precise hydration when moisture levels go below the specified amount.

Mobile App Insights

Sends prompt reminders to water the plant or that the plant has been watered.

Prototype for how the UI will look + work



Warning - Alerts you when current moisture is lower than threshold moisture

Enables to add users for their own plants

Toggle button - For you to switch from manual and automatic mode

Add your plants

Only for manual mode - Allows you to control how much water you want to add

Current moisture level + level required

Progress bar - For you to customize your respective plants moisture level

Citations

International Journal for Research Trends and Innovation observed that such systems reduced water usage by 40–50%

THANK YOU!