FREZIVA

Pushing the Boundaries of Aeroponics.

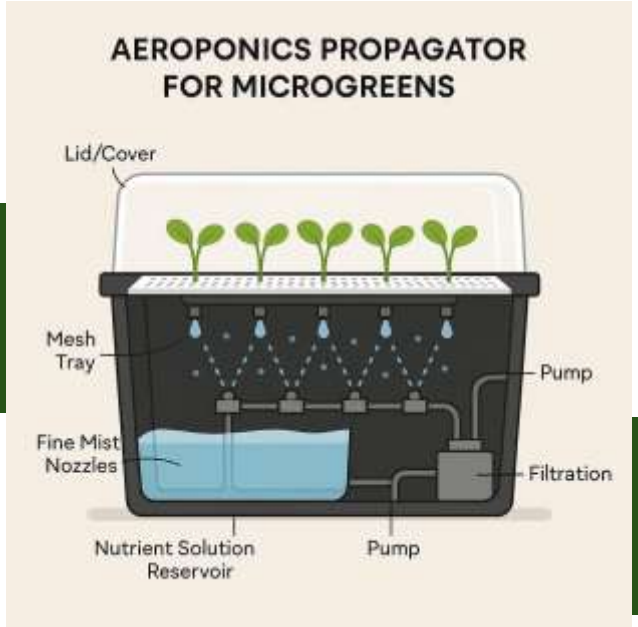
Problem Statement

Aeroponics, a soil-less, water-efficient, and high-yield farming technique, remains largely untapped in India despite its global relevance and potential.

Current aeroponic systems lack a clean, organic-compatible nutrient medium that supports efficient root development without synthetic residues.

The challenge of poor air quality and limited space for sustainable food production can be addressed by integrating aeroponic farming with microalgae-based air purification in a single, compact system.

Introducing Aeroponics Propagator



1

A high-efficiency plant-starting system where seeds germinate and grow into saplings with roots suspended in air and misted with nutrient solution.

2

This oxygen-rich environment promotes faster root development, reduces water usage, and minimizes the risk of soil-borne diseases, making it ideal for microgreens and early-stage plants.

3

Its compact and closed design allows precise environmental control and is particularly suited for urban, indoor, or space-constrained farming setups.

Why Propagator In Aeroponics?

The Aeroponics Propagator offers an ideal environment for the rapid and hygienic cultivation of microgreens and other plants upto sapling stage.

The propagator acts as a foundation stage before plants are transferred to vertical aeroponic towers for full growth and harvest.

By using a two-stage model—propagator to tower—plants receive tailored environmental conditions at each phase, ensuring a high transplant survival rate and optimized nutrient uptake.

Reduces reliance on coco peat and other growth substrates.

Organic Nutrient Medium with Nano-Filtered Seaweed Extract

- This organic nutrient medium contains nano-filtered extracts of indigenous seaweed and organic compounds.
- It delivers essential macro- (N, P, K) and micronutrients (Fe, Zn, B, Mn, Cu, Mo), along with natural bio-stimulants like amino acids, polysaccharides, vitamins, and plant hormones (auxins, cytokinins).
- Enhances rooting and seedling vigor, boosts nutrient absorption, strengthens plant immunity.

This organic nutrient medium can be integrated with fogponic systems built by Airponix. Its filtered and fog-safe properties ensure smooth automization.

Novel Hybrid System Idea

Image Credits : Liquid Tree

✖

This hybrid system combines a photobioreactor (which uses microalgae to purify air and generate oxygen) with an aeroponics propagator (that supports soil-less cultivation of microgreens and saplings using nutrient-rich mist), forming a compact, self-sustaining bio-environment. This fusion creates a symbiotic system where algae enhance air quality and root oxygenation, improving plant growth.

Commercial Advantages

1. Aeroponics Propagator for Microgreens

Commercial Edge: Enter a USD 9.76B market (2034 est.) with a scalable, high-yield system that cuts cycles by 25% and uses zero substrate.

Strategic Fit: Opens B2C, chef, and urban grower channels—minimal CAPEX, fast ROI.

(Empower growers everywhere to grow more with less—cleaner, faster, smarter.)

2. Seaweed-Based Nutrient Medium

Commercial Edge: Unique, patentable bioactive input with high-margin, repeatable sales potential.

Strategic Fit: Adds a consumable revenue stream and positions Airponix as a provider of full-spectrum growing solutions.

(Natural innovation that nurtures roots and planets—turn every grows into a sustainable act.)

3. Hybrid Aeroponic + Bioremediation System

Commercial Edge: Dual-purpose system—grows food and purifies air. WHO: indoor air can be 5× more polluted, causing 3.8M deaths/year.

Strategic Fit: First-ever blend of phytoremediation + precision farming for wellness-focused homes, offices, and urban spaces.

(It’s not just farming—it’s healing. This system feeds people and cleans the air they breathe. No one’s done this. Airponix can lead this frontier.)

Business Plan

What We Are Going to Sell?

- Organic nutrient medium enriched with nano-filtered seaweed extract.
- Aeroponic propagator kits for growing microgreens and saplings (up to transplant stage).
- Fresh, organic microgreens grown using our system.

Business Plan

To Whom We Are Going to Sell?

B2C (Business to Consumer)

- Urban consumers and home gardeners
- Wellness and nutrition enthusiasts
- Apartment dwellers with limited space

To Whom We Are Going to Sell?

B2B (Business to Business)

- Restaurants and cafés
- Retailers and organic stores
- Educational institutions
- Commercial growers and nurseries
- Hydroponic and aeroponic farming startups
- Corporate offices promoting green workspaces

Meet The Team

1. Founder - Abrar Ahamed Rifayee T M
2. Co-founder – Goutham S, Pavithra S
3. R&D - Md Fardeen Y
4. Marketing - Vishal Singh
5. Mentor - Dr. Yuvaraj D (Marine biotechnologist)

THANK YOU!

Let’s get started.