International Design Challenge

VERTICAL FARM TOWER:
FARMING REIMAGINED FLOOR BY FLOOR

First Edition

Register Now!

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Vertical Farm Tower

FARMING REIMAGINED FLOOR BY FLOOR

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Introduction

Rapid urbanization, climate instability, and food supply disruptions demand new ways of producing food closer to where people live. Vertical farming has emerged as a promising solution—integrating agriculture into dense urban environments while minimizing land use, water consumption, and transportation emissions.

The Vertical Farm Tower competition challenges participants to design a high-rise agricultural structure where food is cultivated floor by floor, transforming the tower into a living, productive ecosystem. The project should demonstrate how architecture, technology, and nature can coexist to create resilient, self-sustaining urban food systems.

Objective

Participants are invited to conceptualize a vertical farming tower that:

- Integrates food production within a multi-storey building
- Demonstrates efficient use of space, energy, water, and resources
- Explores innovative farming technologies (hydroponics, aeroponics, aquaponics, etc.)
- Acts as a landmark for sustainable urban living
- Connects farming with community, education, and urban life

The proposal should go beyond a functional farm and become an iconic, adaptable prototype for future cities.

The Building Program

- Vertical farming floors (leafy greens, fruits, vegetables, grains, or specialty crops)
- Seed germination and nursery zones
- Climate-controlled growing environments
- Water recycling and nutrient management systems
- Renewable energy integration (solar, wind, biogas, etc.)
- Research and innovation labs
- Food processing, packaging, and storage areas
- Community spaces (learning centers, viewing decks, farm-to-table café)
- Administration and control rooms
- Vertical circulation (elevators, ramps, service cores)
- Waste management and composting systems

(Indicative – participants may modify or expand)

Site

- Participants may choose an urban location anywhere in the world
- Climate, context, and surrounding density should inform the design
- Justification of site selection is required
- No fixed plot size or height restriction unless defined by the participant

Timeline

Launch Date: 1st January 2026
Registration deadline: 30th September 2026
Submission deadline: 10th October 2026
Result Announcement: 16th December2026

Submission Requirements

Participants must submit:

- Design Panels – minimum 2 panels and maximum 6 panels (panel size: A2, Landscape, format jpeg./jpg.)
- A brief **concept description** (format docs. File)

Drawings may include:

- Concept diagrams
- Plans, sections, elevations
- 3D views / visualizations
- Exploded diagrams or process sketches

Important:

- No participant names, university names, or identifying marks are allowed on the submission sheets
- Design title and slogans are permitted
- Submissions must follow anonymity rules strictly

Jury

The jury panel will consist of experienced architects, designers, educators, and industry professionals from diverse backgrounds. Entries will be evaluated based on:

- Conceptual Clarity & Innovation
- Architectural Design Quality
- Integration of Farming Systems
- Sustainability & Environmental Performance
- Feasibility & Urban Relevance

The jury's decision will be final and binding.

Eligibility

- Open to all.
- Individual and team entries are allowed
- Team size: minimum 1 – maximum 4 members
- No restrictions on age, nationality, or academic background

Contact Details

Brief link: https://www.archiolcompetitions.com/competitions/vertical_farm_tower

Email: info@archiolcompetitions.com

Organizers

Archiol Competitions
www.archiolcompetitions.com