Horizon HydroFarm

Technical Datasheet

Product Overview

The Horizon HydroFarm is a indoor hydroponic growing system designed for educational and hospitality environments. It enables users to grow up to 114 plants per cycle in a controlled, soil-free environment, supported by a smart companion app and monthly subscription service for seeds, nutrients, and substrates.

General Specifications

Feature	Specification
Product Name	Horizon HydroFarm
Type	Indoor hydroponic farm
Primary Use	Educational (STEM learning) / Hospitality (on-site growing)
Construction	Metal and composite structure with integrated lighting and water system
System Dimensions	Height: 188.8 cm I Width: 160.6 cm I Depth: 81.6 cm
Plant Capacity	Up to 114 plants per cycle
Cycle Duration	2-8 weeks (from germination to harvest)
Growing Method	Soil-free, recirculating hydroponic system
Lighting	Full-spectrum LED grow lights (optimized for plant growth)
Water Use	Up to 90% less than traditional soil farming
Power Requirements	230V AC, typical consumption < 300W
Noise Level	< 40 dB
Connectivity	Wi-Fi / App-integrated monitoring system
Operating Environment	Indoor only; ambient temperature 18–28°C

App Integration — Companion App

Feature	Description
Platform	Mobile (iOS, Android) and Desktop
Main Functions	Smart notifications (planting, watering, harvesting)
	Lighting & ventilation control
	Real-time monitoring of environmental data
	Growth tracking and data logging for student projects
Educational Use	Supports STEM experiments, data literacy, and sustainability lessons

Monthly Subscription Service

Included Monthly	Description
Seeds	Basil, dill, parsley, romaine lettuce, and other seasonal varieties
Substrates	Pre-cut growing sponges, clean and reusable trays
Nutrients	Balanced hydroponic nutrient solution (A+B formula)
Support	Online tutorials, growing calendar, and technical support

Educational Integration

Subject Links	Learning Focus
Biology	Photosynthesis, plant life cycles, ecosystems
Chemistry	pH, nutrients, osmosis, and chemical balance
Physics	Light intensity, water flow, conductivity
Technology & ICT	Smart sensors, IoT systems, app data logging
Geography & Climate Studies	Sustainability, global food systems, water cycles
Nutrition & Health	Food security, healthy diets, local food systems

Example Crop Cycle (Lettuce)

Stage	Duration	Action
Germination	Days 1–4	Place seeds in substrate
Transplant	Day 4	Move to main growing tray
Growth	Weeks 1–4	Monitor via app
Harvest	Week 5	Ready to pick and restart cycle

Key Benefits

★ Plug-and-play design – minimal setup

★ Up to 114 plants per growth cycle

★ Soil-free, pesticide-free, clean operation

★ Smart app monitoring for easy management

★ Supports sustainable and future-ready education

★ Compact footprint – fits classrooms or kitchens

★ Predictable monthly costs and supply consistency

Safety & Compliance

• CE Certified electrical components

• Food-safe materials

• No pesticides or soil contaminants

• Enclosed water and nutrient system to prevent spills

Distributed by

Learning Labs, Inc.

1-800-334-4943

www.LLI.com