

RAYN Growing Systems

Horticultural Education System



Type(s)
Project
Date
Notes

GENERAL INFORMATION

With EdRack, you're not just teaching agriculture—you're inspiring the next generation of innovators in STEM and agriculture. Equip your students with the tools and knowledge they need to tackle the challenges of tomorrow.

FEATURES

- Manufactured using commercial-grade growing materials
- Easy to clean
- FDA-approved reservoirs, ball valves for flow control, replaceable filters, and commercial-grade pumps
- Durable, leach-resistant irrigation lines, Botanicare® grow trays, and a 900 lb capacity Uline™ rack with rolling polyurethane casters
- Built by a 50-year-old employee-owned manufacturer of commercial lighting and control systems
- Provided labs, support, and monthly webinars for best practices
- It ships fully assembled and rolls right into your lesson plans at the frequency of your choosing
- Purpose-built for educational labs, enabling interactive STEM learning through simultaneous treatments
- Designed for real-world industry methods, continuous upgrades, and hands-on exploration—beyond “seed, plant, harvest, repeat”
- Durable, serviceable, and built to foster a growing community of educators and students innovating with STEM and CTE

INCLUDED LABS

Labs are a combination of video and PDF content.

- EdRack 101: Learn to grow with EdRack by setting up a standard 3-tier grow
 - Duration: 3–5 weeks
- Nutrient Trials 101: Learn how different ratios of nutrients affect the same two plant varieties
 - Duration: 3–5 weeks
- Sanitation 101: A guided video series on professional horticultural best practices in sanitation applied to EdRack
 - Duration: 1 day

ORDERING INFORMATION

EdRack

Model	Description	Part Number
EdRack	EdRack	9700A0012

EdRack Accessories

Model	Description	Part Number
P500	Pump	9700A0013
T4X2	Tray	9700A0014
RES13	Reservoir	9700A0015

Upgrade Sets*

Model	Description	Part Number
Kit 1	Lighting Lab	9700A0016
Kit 2	Growing Methods Lab	9700A0017
Kit 3	Advanced Nutrients Lab	9700A0018
CK	Consumables Kit	9700A0019

*For a detailed list of what is included in each upgrade set, please visit: RAYN.ag. A full list of included consumables can be found on page 2.

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PRODUCT SPECIFICATIONS

Mechanical

- Pump Flow rate: 500 gallons per hour/per tier
- Maximum days between fill: Six days (assuming 50% relative humidity, 23°C [74°F] ambient)
- Noise level: 40 dBA (maximum with all fans and pumps at full)
- Easy transport via built-in polyurethane rolling casters

Electrical

- 120 V, 550 W power when the system is at maximum utilization (including pumps, fans, and lights at 100% intensity)

Environment

- 10°C to 35°C (50°F to 95°F)
- Passive and active thermal management

Warranty

- EdRack Lighting: Five-year limited
- Non-lighting: One-year

Regulatory and Compliance

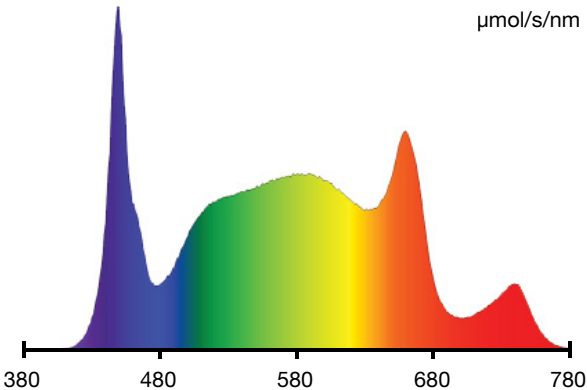
- Individual components follow acceptable compliance safety standards for use in the EdRack system

INCLUDED CONSUMABLES

Included Consumables	Quantity
iHort Q-Plugs - Substrate	200
Johnny's Seeds Butterleaf Lettuce Green	250
Johnny's Seeds Butterleaf Lettuce Breen	250
Styrofoam Raft	3
Growing Tray Blank Covers	60
Plastic Net Pots	100
Folding Stool	1
Growers Edge Fly Traps (pack of five)	1
Sponge Filters	3
1020 Tray Clear Domes	4
1020 Tray Insert	1
Digital EC/pH Probe	1
10 mL Pipets	4
Digital Gram Scale	1
Plant Label Wrap	100
Plant Label Stakes	100
500 mL Measuring Cup	1
General Hydroponic FloraMicro 1 L	1
General Hydroponic FloraGro 1 L	1
General Hydroponic FloraBloom 1 L	1
General Hydroponic pH Up 1 qt	1

SPECTRUM

Cultivation



PPF: 82.8 μmol/s
 Efficacy: 2.3 μmol/J

Note: All spectrum data indicated above is subject to change.

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PHYSICAL

Dimensions

Model	Height		Width		Length	
	mm	in	mm	in	mm	in
EdRack	2,003	78.9	702	27.6	1,353	53.3

Weights†

Model	Weight		Shipping Weight	
	kg	lb	kg	lb
EdRack	150	330	TBD	TBD

†Actual weight with all three reservoirs filled. System is rated for 408 kg (900 lb)

