

RAYN Growing Systems

Horticultural Education System

Type(s)

Project

Date

Notes



GENERAL INFORMATION

The microRack is a compact, multi-tiered growing system designed to teach entrepreneurship and sustainability through hands-on microgreen cultivation. The microRack, developed for middle and high school classrooms, combines hardware, curriculum, and real-world business applications into a single, easy-to-use package.

FEATURES

- Manufactured using commercial-grade growing materials
- Easy to clean
- Built by a 50-year-old employee-owned manufacturer of commercial lighting and control systems
- Provided labs, support, and monthly webinars for best practices
- Purpose-built for educational labs and for developing young entrepreneurs
- Designed for real-world industry methods, continuous upgrades, and hands-on exploration—beyond “seed, plant, harvest, repeat”

INCLUDED LABS

Labs are a combination of video and PDF content designed for flexibility and can be run in weeks or spread across a semester.

- Day by day student handouts and lessons (short course and long course options included)
- Microgreen tastings, flavor analysis, and customer testing
- Business model canvas for students
- Pricing tools, cost of goods calculators, and sales tracking worksheets
- Branding and marketing activities
- Customer interviews, pitch development, and packaging design
- Production planning tools to simulate real small business operations

ORDERING INFORMATION

microRack

Model	Description	Part Number
microRack	microRack	7441A1021

microRack Accessories

Model	Description	Part Number
CRA80C	Ciara Light Fixtures (qty 2)	7441A1014
EZDIM	Dimmer	7441A1007
	Timer	M7790

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microRack

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PRODUCT SPECIFICATIONS

Mechanical

- Easy transport via built-in polyurethane rolling casters

Electrical

- 120 V, 360 W power (max) when the system is at maximum utilization (lights at 100% intensity)

Environment

- 10°C to 35°C (50°F to 95°F)

Warranty

- microRack Five-year limited (except consumables)

Regulatory and Compliance

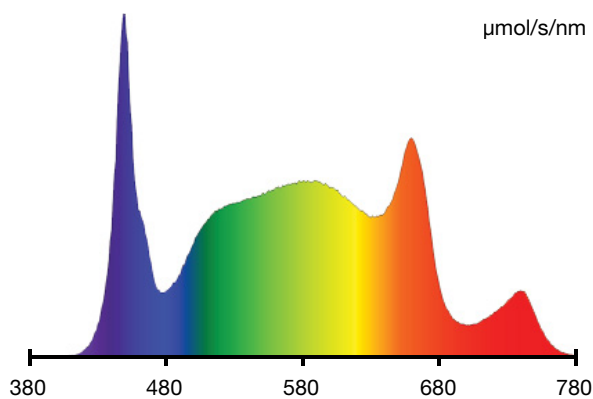
- Individual components follow acceptable compliance safety standards for use in the microRack system

INCLUDED CONSUMABLES

Included Consumables	Quantity
Microgreen Grow Trays - No Holes	20
Microgreen Grow Trays - With Holes	20
CocoGro	3
Radish Microgreen Seeds (1 lb)	1
Broccoli Microgreen Seeds (1 lb)	1
Measuring Cup	1
5 Gallon Bucket	1
pH Test Kit	1
Sprayer	1
White Silicone Wire Ties	10
Scale (gram)	1
Pipets	5
Black Sharpie	1
Microgreen Tray Label	2
White Electrical Tape	1
Harvesting Scissors (3 pack)	1

CIARA LIGHT FIXTURE SPECTRUM

Cultivation



PPF: 82.8 $\mu\text{mol/s}$
Efficacy: 2.3 $\mu\text{mol/J}$

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

PHYSICAL

Dimensions†

Model	Height		Width‡		Length	
	cm	in	cm	in	cm	in
microRack	199	78.4	48	18	123.6	48.7

‡ Width of the rack only. Excludes Microgreen Grow Trays.

Weights†

Model	Weight		Shipping Weight	
	kg	lb	kg	lb
microRack				

† System is rated for 408 kg (900 lb)

