



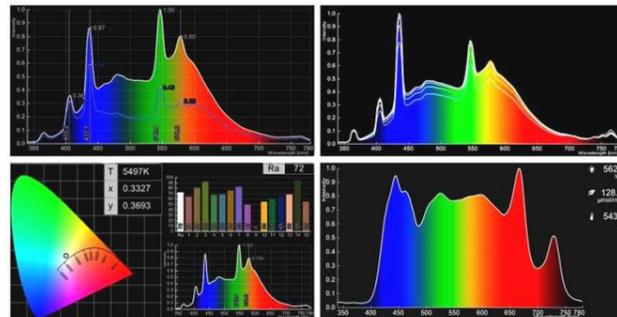
### Handy Spectrometer, model AGH

- ◆ Portable and lightweight
- ◆ Conforms to Class A of JIS C 1609-1: illuminance meters Part 1
- ◆ Win7/8.1/10 operated software with USB 2.0 connection
- ◆ 1.5m USB cable for remote operation by your PC
- ◆ Measures PPF, Lux, Color index, Spectral wavelength, etc.
- ◆ 340 to 780nm spectral wavelength
- ◆ Measures up to  $3000\mu\text{mol m}^{-2} \text{s}^{-1} / 200000\text{Lux}$
- ◆ Data download as PNG image and/or CSV file

Model AGH handy spectrometer is ideal to measure PPF, Lux, wavelength, color temperature, and color rendering index (CRI) of various illumination sources.

Due to USB cable connection to your PC, you can put it in your chamber as low as possible, and measure from the chamber outside.

Its high-resolution CMOS sensor captures the spectral power of several light sources such as LEDs, HID, and FL lamps.



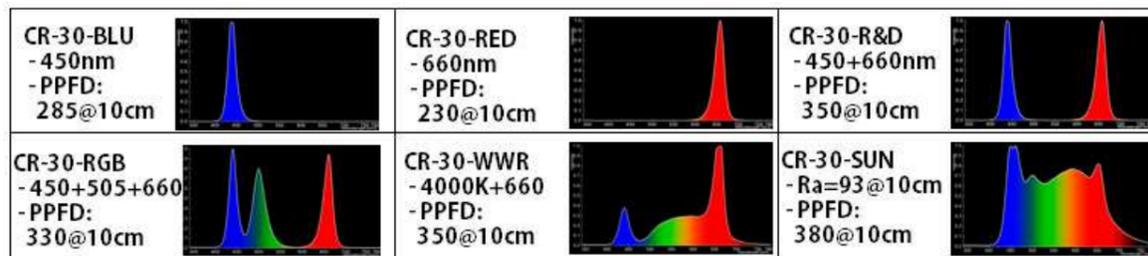
# Plant Growth Equipment For Laboratory



### Horticulture LED light bar, model CR-30

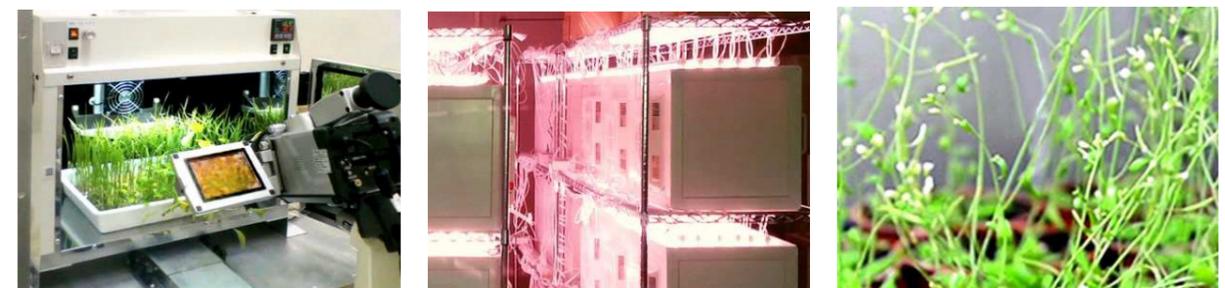
- ◆ Compact and lightweight
- ◆ 30cm waterproof Aluminum housing
- ◆ High power 1.8W LED x 6 pieces with 90° lens
- ◆ Adjustable 0-100% light intensity
- ◆ Available 6 types of wavelength
- ◆ Up to  $350\mu\text{mol m}^{-2} \text{s}^{-1} @10\text{cm}$

Most of plant experimental shelves are space saving. Since the CR-30 is just 30 x 8 x 2.5cm slim design, it is ideal to install at the limited space. By using extension brackets, you can extend long ways to achieve more length or side by side to gain more width. Equipped with one power cord which plugs in at the top, the CR-30 is easy-to-use to create any lighting spectrum to meet your purpose.



Specifications are subject to change for improvement (as of July 2016)

**Bench-Top Plant Growth Chamber**  
**Handy Spectrometer**  
**Horticulture LED Light Bar**  
**Plant Experiment Unit under  $\mu\text{G}$  in Space**

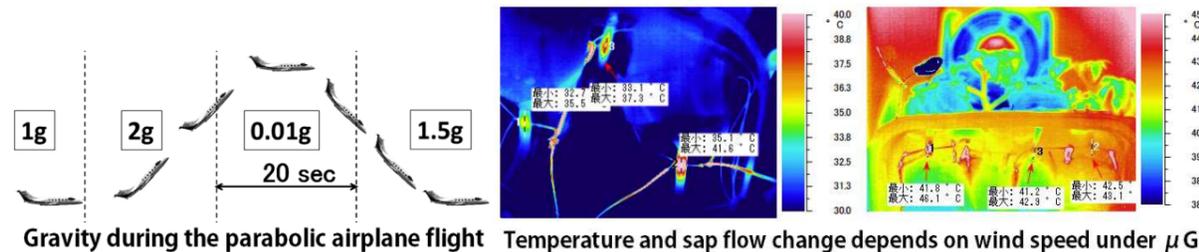
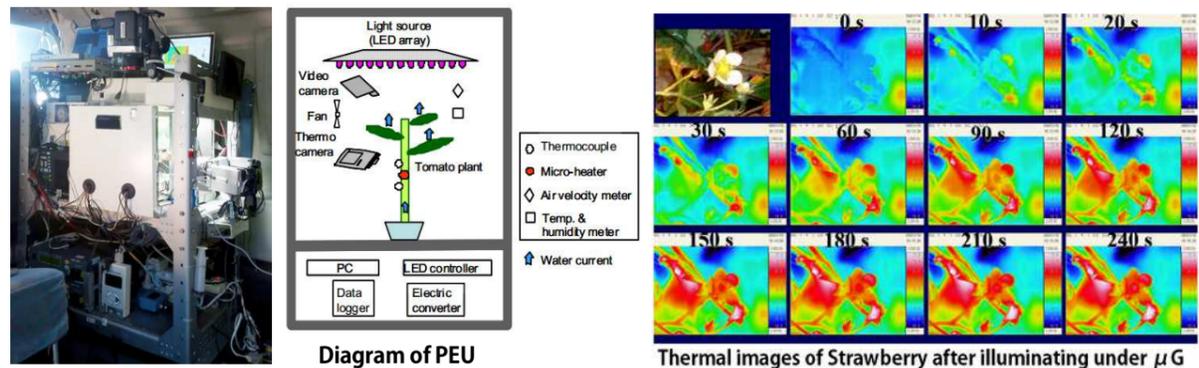


## About us

We, MRT Corp, design and develop sensors and sensor-equipped products that uses 15 years experience of sensing technology. Since 2008, We have providing compact and cost-effective plant growth equipment to Japanese researchers. From little-by-little distribution to university and institute, we became the leader of bench-top growth chamber on the Japanese research market.

## PEU under $\mu\text{G}$ in space

We have been joining the collaborative research of JAXA (Japan Aerospace Exploration Agency) from 2010, we manufacture several Plant Experiment Unit (PEU) for fundamental study of plant responses under micro-gravity conditions as International Space Station (ISS) environment.



## Ready-to-Assemble Peltier Cooled Incubator

- ◆ Ready-to-assemble modular design from 50 to 150 Litter
- ◆ Temperature control range from +1°C to +60°C
- ◆ Room temperature -12°C Cool down ability @23°C
- ◆ High accuracy +/- 1.5°C @23°C
- ◆ Energy-saving cooled incubator from 50W
- ◆ Day-Night differential or Constant temperature operation

Model C-007 peltier cooled incubator heats up and cools down seamlessly in one system. It works reliably in a range of +1 to 60 °C thanks to the patented peltier construction.

The ready-to-assemble sandwich panel makes it easy to fabricate incubators of 50L, 100L and 150L.

The cooling or heating ability will depend on the surrounding temperature. Cool down ability is up to 12°C lower than the room temperature (@23 to 30°C).

The C-007 has the day-night differential or constant temperature operation. If you choose the day-night operation, temperature of the night period is adjustable between 1 to 10°C lower than the day setting.



## Bench-top Plant Growth Chamber, Model V-09

- ◆ Compact & Cost-effective 3-in-1 LED + Peltier chamber
- ◆ Temperature range: +10°C to +40°C (RT-10°C to +20°C)
- ◆ RGB control up to  $180 \mu\text{mol m}^{-2} \text{s}^{-1}$  @5cm
- ◆ Adjustable 0-100% light intensity by remote controller
- ◆ Day-Night Light, Temperature and Humidity control
- ◆ USB data export of temp., humidity and Cool/Hot condition
- ◆ Fan-assisted continuous forced-air circulation
- ◆ Visual alarm for abnormal status / Overheat protection

The V09 is the bench-top plant growth chamber. Using 3-in-1 RGB LED and Peltier cooling/heating system, which makes it the silent and energy-saving solution. Despite its size, the V09 is able to manage light intensity, humidity, and temperature.

To simulate day and night time cycle, the V09 is programmable up to 4 pattern of On-Off cycle of humidity, temperature and LED illumination. For example, it operates as 16-hour day cycle of 25°C / 85%RH with light followed by 8-hour night cycle of 20°C / 75%RH without light.

The chamber is made by heat-insulated ABS plastic to avoid rusting. Forced air circulation (Nor. 0.3m/sec) ensures the most reproducible test conditions.

It is ideal for Arabidopsis, Insect Incubation, Seed Storage, Constant Temperature, Plant Growth, and Tissue Culture.

Dimensions	Ex: W43xD48xH53cm In: W37xD37xH37cm
Volume	About 37L (effective) 50L (nominal)
Intensity	$80 \mu\text{mol/m}^2/\text{s}$ (base center=40cm, 100% RGB)
Dimmer	0 to 100% by remote controller
LED	3-in-1 LED / R: 640nm, G: 525nm, B: 470nm
Temp range	+10°C to +40°C (RT-10°C to +20°C)
Humidity range	5 to 95%RH
Accuracy	$\pm 1^\circ\text{C}$ temperature, $\pm 5\%$ RH (@25°C)
Data export	USB 2.0 ( Tera-term is necessary in the Win PC)
Weight	Approx.11kg
Power supply	AC100-240V 50/60HZ, Max.100W
Safety device	Overheat, Overload, Blackout

