

THE HORTICULTURE CAMERA



BECAUSE EVERY GROW ROOM NEEDS A LITTLE

TIME LAPSE CAMERA

Consolidated Horticulture Monitoring Systems do not Exist

- Users must:
 - purchase various pieces of expensive equipment, each with their own plugs, digital interfaces, and sensors.
 - create a wall where the digital interfaces mount or hang, including wires, adaptors, and connectors.
- Multiple:
 - standalone mobile applications are required that don't share collective data
 - types of cameras, including time-lapse, monitoring, and security, are being utilized





Introducing: The Horticulture Camera

The Horticulture Camera, patented technology, is a product in a new and untapped industry of horticulture camera. Our goal is to provide the most intuitive, automatic, remote-controlled grow system ever. It will truly be a one-stop shop for total integrated control and peace of mind.

WHAT DOES IT DO?

- The Horticulture Camera:
 - uses time-lapse photography as a timeline to record and capture the atmospheric values, as well as soil and water conditions.
 - is an automated system for growing plants that incorporates cameras for security purposes, peace of mind, science, photography, internment, and promoting the most efficient growing gear and the best nutrients on the market.
 - monitors and controls the environment by giving and taking power away from the different utilities based on set timers, thresholds, schedules, and manual switches.
 - uses a smart device application with a Wi-Fi-capable power control box to control the environment. Smaller satellite power boxes allow it to scale up.
 - uses AI to detect nutrient deficiencies and give corrective advice, as well as ripeness of produce, rate of growth, sex of plant, and plant species.
 - calculates the NPK numbers from the mixed nutrients being used at any given time. It even tells you which nutrient deficiencies to look out for, and what they look like.
 - monitors for these telltale signs by using AI and its camera lenses.
- Videos can be viewed and paused at any time to see what took place, how it happened, and why.

WHAT DOES IT CONSIST OF?



The Horticulture Camera:

- Can be purchased on its own
- Has onboard sensors
- Is compatible with other security camera systems and integrated smart home systems



A variety of sensors:

- Co2, light, temperature, humidity, PH, EC/TDS, and more, as needed for the grow type



The power control box:

- Can be purchased on its own
- Has an LCD touch screen
- Has 8 programmable smart utility outlets
- Monitors wattage usage
- Has a built-in surge protector
- Connects remotely via Wi-Fi or Bluetooth
- Has some basic onboard sensors
- Has several USB ports for data storage and accessories
- Has ethernet ports
- Has an integrated PCB/Computer that stays up-to-date with software, such as Norton, GrowDoc, NPK counters, day counters, calendars, spreadsheets, grafts, and more



Smaller satellite power control boxes or SBC's:

- Allow the system to scale up to the commercial level
- Extend the Wi-Fi range across a larger facility
- Provides room for more utilities, cameras, and sensors

MULTI-INDUSTRY INTEREST

Photography: It creates high-quality time-lapse videos.

Plant Biology: It teaches people about plants in the most intuitive way.

Big Ag: Its scalable from a 2X2 to a commercial grow.

AI: It provides corrective advice on nutrient deficiencies, ripeness of produce, rate of growth, sex of plant and much more.

Security: It works just like a security camera system with the ability to store personal data on private servers or on a cloud service.

Intelligent smart home systems: It gives you total remote control over your grow environment and cameras. It may be compatible with other camera systems and smart home systems.

QR CODES AND HOW THEY WILL BE USED

When you connect a new utility to the system, you scan the QR code on the manufacturer's label. The QR code will tell the system everything it needs to know about the product.

The same for nutrients. The system will know the NPK for any nutrients being used. It will automatically recognize if you're using the right mixture or not.

THE TYPE OF PRODUCTION THIS WILL CREATE

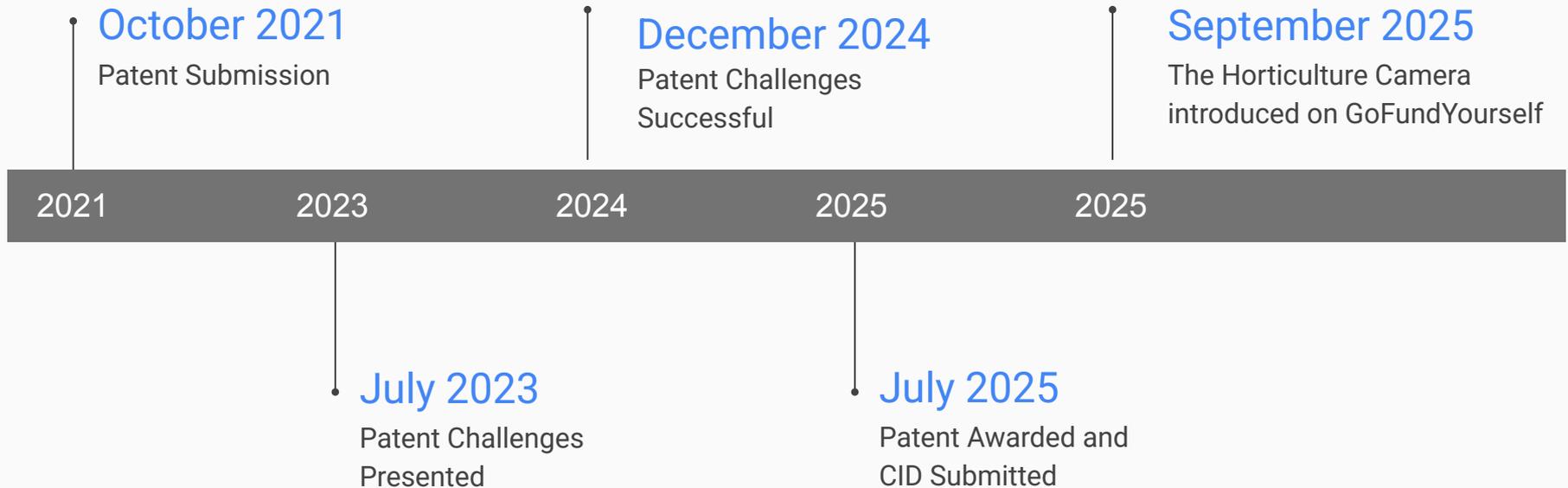
It will create 4k time-lapse videos.

Users will have the option to share a slide at the beginning or end of the production that breaks down everything used for the run. Basically, the length of the time-lapse video.

The slide will show off the nutrients, utilities, and how much electricity it took to complete a harvest.

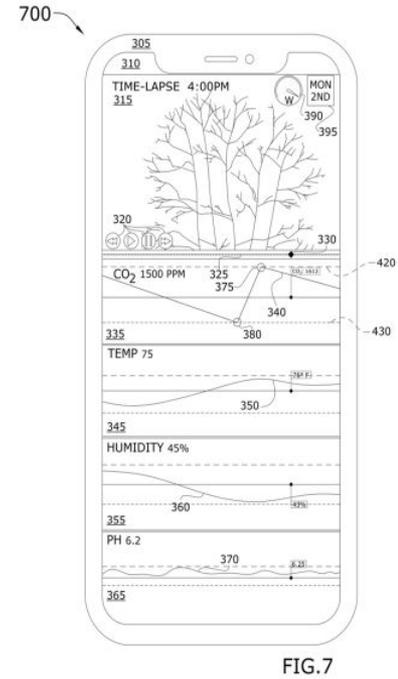
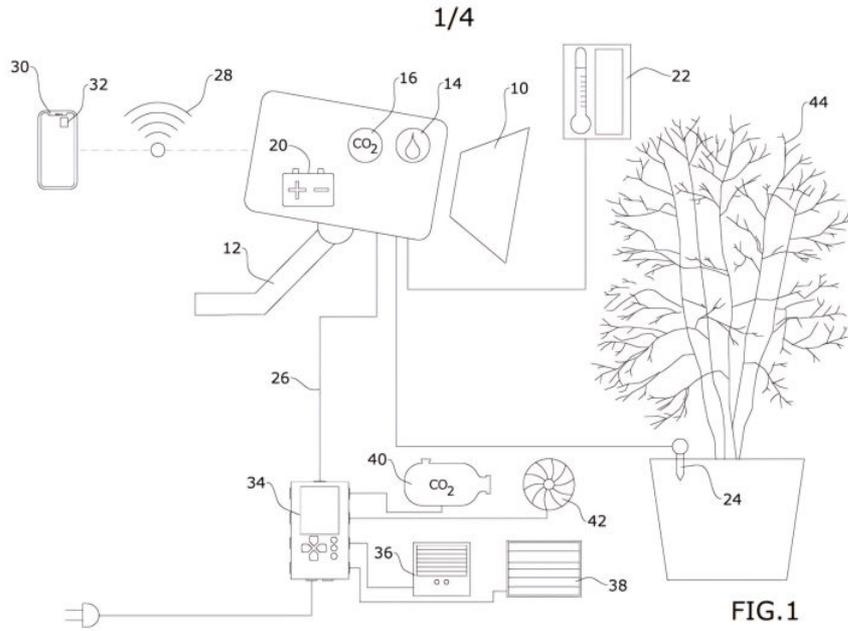
It will create viral videos just like every other great camera concept.

Milestones



Appendix

MY PATENT DRAWINGS



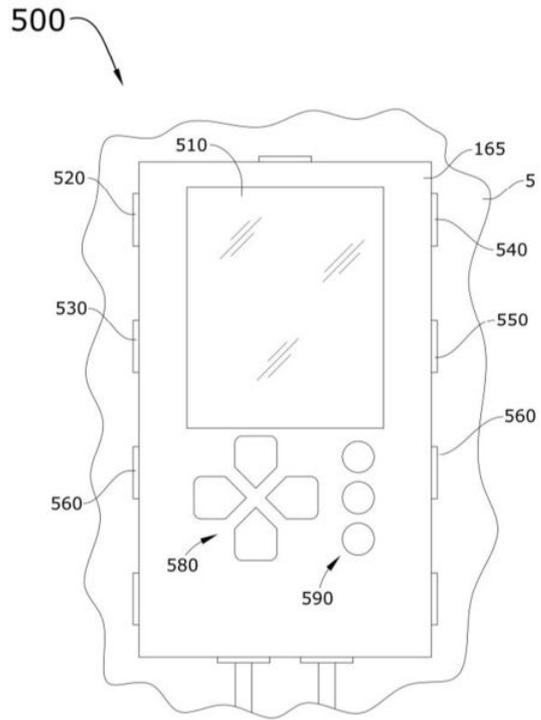


FIG. 5

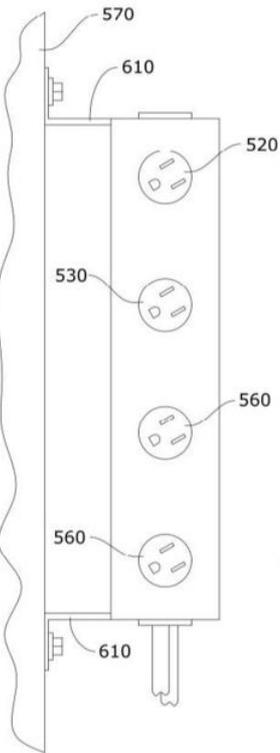


FIG. 6

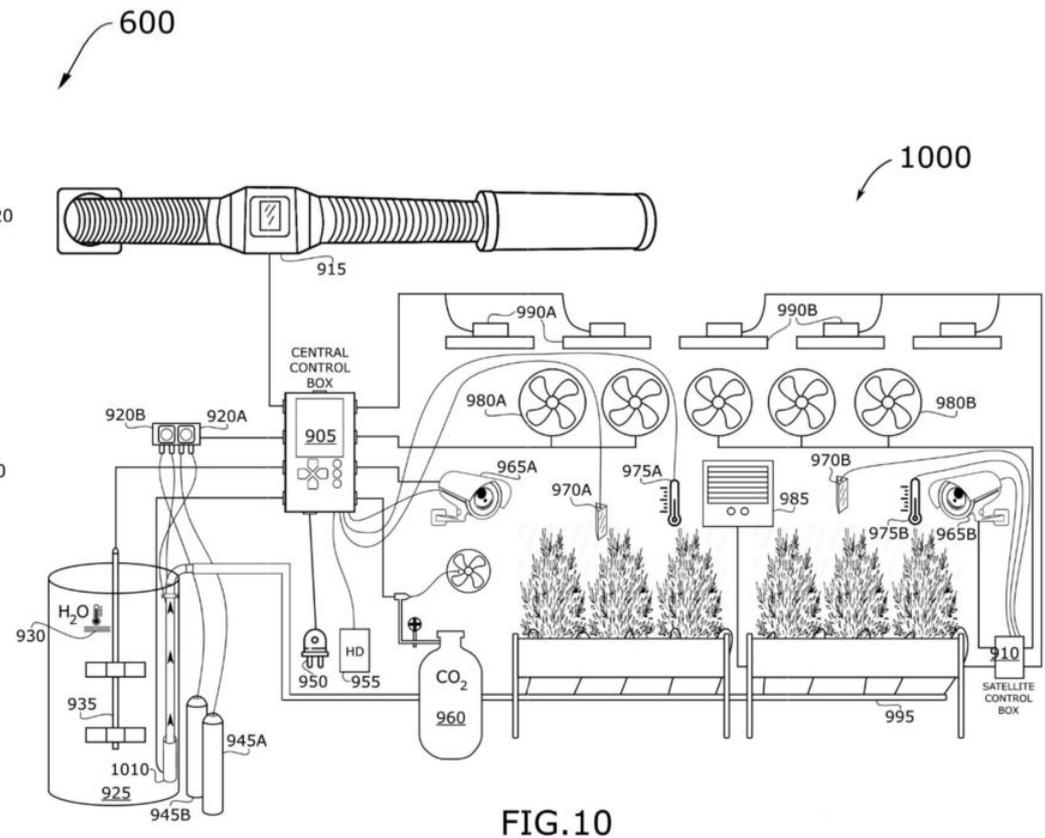


FIG. 10

AN OVERVIEW OF THE SYSTEM

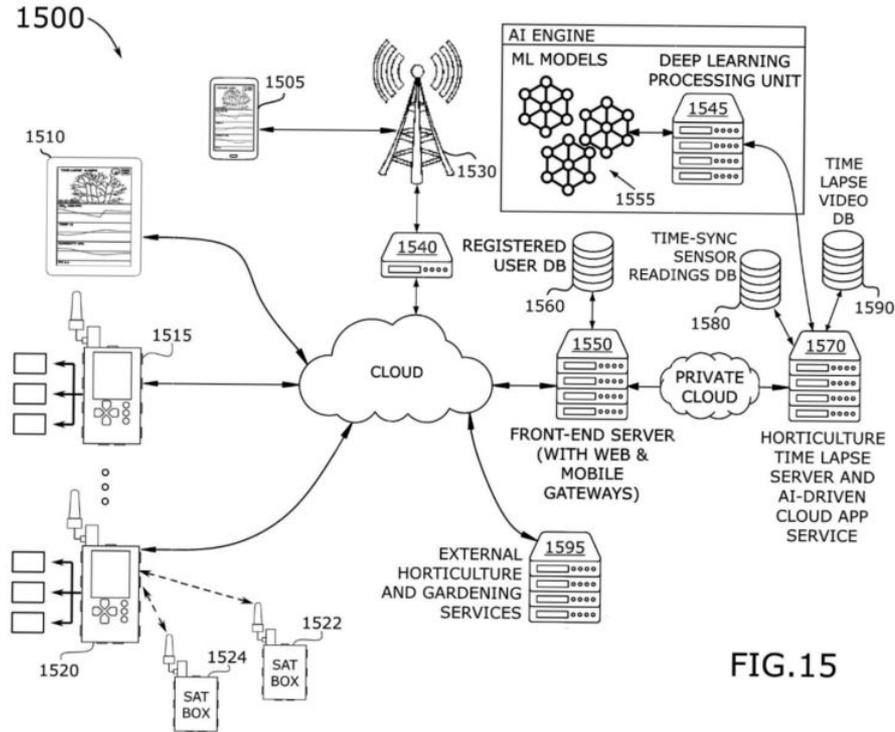


FIG. 15

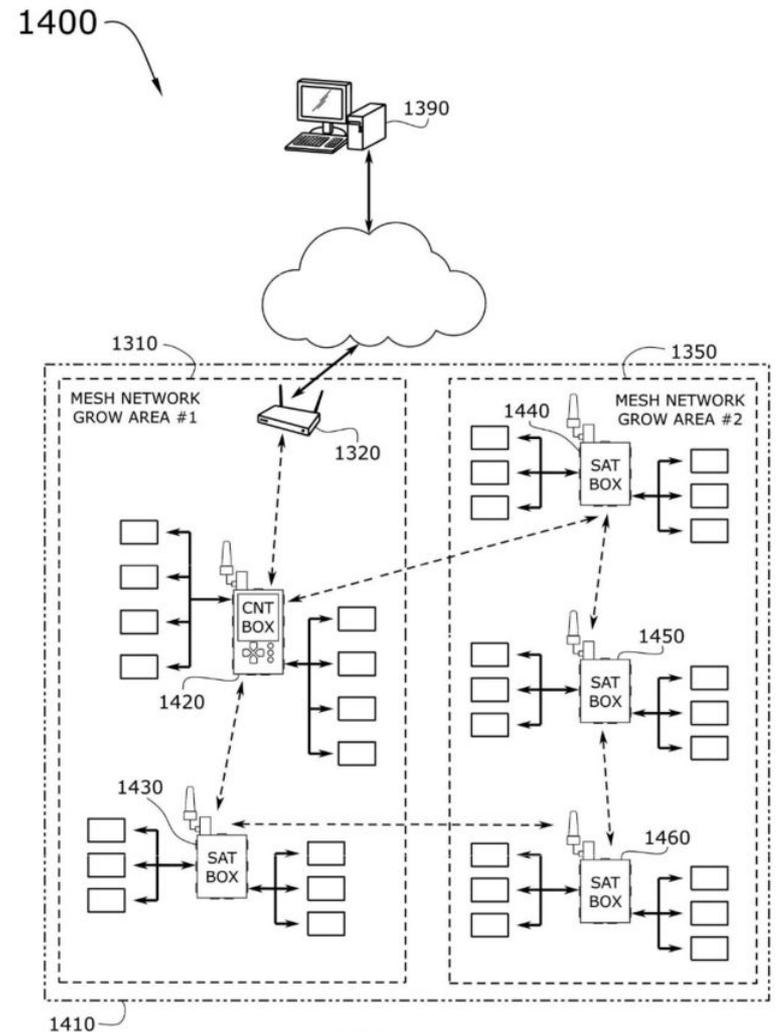
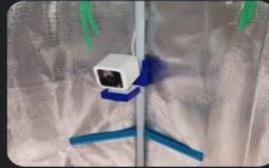


FIG. 14

CAMERAS IN THE GROW



Etsy
Grow Tent Wy...



Yeggi
wyze cam gro...



Etsy · In stock
Wyze Camera...



Yeggi
"wyze cam gr...



Etsy
Wvze Cam V4...



Yeggi



EACH DEFICIENCY HAS ITS OWN TALETALE SIGNS

7 Nitrogen (N)
14.01
Mobile

Occurrence

Toxicity

- Abnormally Dark Green Foliage
- Stunted Growth and premature flowering leading to low yield
- Red-Purple Stems could occur
- Leaf Clowing and downwards curling
- Burnt tips caused by nutrient burn in severe cases

Deficiency

- Yellowing moves up the plant as deficiency persists
- Older leaves become yellow and tips burn

15 Phosphorus (P)
16.97
Mobile

Occurrence

Toxicity

- Iron and Zinc Deficiencies
- Disrupted Nutrient Intake
- Necrosis sets in, leaves fall off in severe toxicities
- Root Tips die back

Deficiency

- Stunted growth, reduced yields
- Dark green coloration
- Upwards curling of the leaf
- Necrotic patches persist into dropping foliage
- More susceptible to pest and diseases

19 Potassium (K)
39.10
Mobile

Occurrence

Toxicity

- Dark brown coloration
- Potassium Toxicity locks out Calcium and Magnesium
- Root Tips die back

Deficiency

- Stunted Growth, reduced yields
- More susceptible to pest and diseases
- Edges of leaves become necrotic, wilted and spotted
- Leaf Claw making leaves curl downward
- Main symptoms begin on the lower half, later spreading to the entire plant

20 Calcium (Ca)
40.08
Immobile

Occurrence

Toxicity

- More susceptible to heat stress
- Alkaline soil conditions
- Causes Phosphorus to fall out
- Signs of Potassium, Magnesium, Iron, and Manganese Deficiency

Deficiency

- Mishapen branching and stunted growth
- Fan leaves begin to spot and curl
- Chlorosis and dark veining in the leaves
- Necrosis on tips and edges of leaves
- Stunted root growth may become brownish in color

12 Magnesium (Mg)
24.31
Mobile

Occurrence

Toxicity

- Darker green foliage
- Signs of Calcium deficiency appear

Deficiency

- Stunted growth
- widespread symptoms across the entire plant as deficiency develops
- Leaflet midrib and margins become discolored
- Discoloration and interveinal chlorosis appear on lower leaves

16 Sulfur (S)
32.07
Partially Mobile

Occurrence

Toxicity

- Less development overall
- Dark green color
- Drying out and wilting leaf tips
- Sulfur is well maintained by plants, toxicities are not prevalent

Deficiency

- Overall spindly appearance and stunted growth
- Discoloration and chlorosis is first seen in the new growth
- leaves become pale green to yellow
- interveinal chlorosis is most severe in lower canopy fan leaves
- Necrotic spots and edges on leaves

CURRENT SYSTEMS DO NOT HAVE ACTUAL HORTICULTURE CAMERAS

The Tallest, Thickest & Strongest
 ...Most Advanced Grow Kit Ever Made

AC INFINITY ECOSYSTEM

Connect this device to an advance UIS controller to create and automate your grow system with app control.

IONBOARD Series
LED Grow Lights

CLOUDRAY Series
Circulation Clip-on Fans

CLOUDLINE Series
Inline Exhaust Fans

UIS Lighting Adapters
Control Other Brands' Lights

UIS Control Plug
Control Outlet Devices

*Devices shown sold separately



YIVOSUN | **SGS Smart Grow System** | Connect Devices via GrowHub & Vivusun App

App Control

Control devices via Wi-Fi or Bluetooth

Control devices via Wi-Fi or Bluetooth

Connect SGS Devices
GrowHub easily monitors + controls from a single screen

Products Coming Soon

Connect Any Device
Power devices remotely via GrowHub's smart plug

WHAT IS A NPK AND WHY IS IT IMPORTANT



N - P - K
0 - 5 - 4

