techequation.org

Summary

Organization Name, Address, Telephone Number and Website

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Year incorporated: 2017



Contact Person

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Name and Title of Person Authorized Point of

Contact

Same as above

Name of Project

Project: SmartBox

IRS 501(c)3 Number: 81-5119027











Smart Farm Nexus

Maximum Yield Food Production



Urban Farming and Technology Project

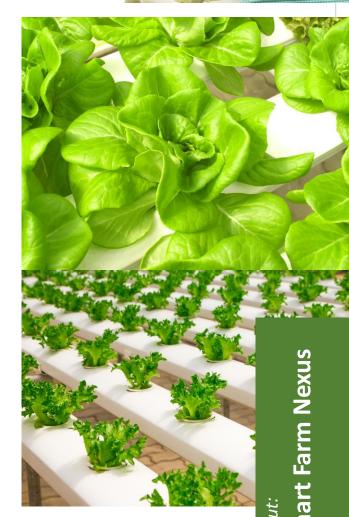
The Urban Farming and Technology Project is a partnership of businesses, communities and individuals. Beginning with a single "smart" farm box (or SmartBox, See prototype, next page), each SmartBox will start as a hydroponics system that can evolve into an aquaponics system. These SmartBoxes will be located throughout the community through signed agreements and partnerships. From backyards to low use farms, each SmartBox is a self-sustained unit that is part of a bigger system, the Smart Farm Nexus. The system will be set up to produce an excess of food. One of the first foods we will grow is leafy greens, for a salad box subscription program. As the system becomes a source of food, starting with a few select crops, planning will commence to expand the system to its limits, growing a variety of foods hydroponically. In addition to growing crop inside the SmartBox, our aim will be to grow crop in a traditional fashion in the ground in a garden plot in proximity to each SmartBox. Otherwise, the food production hydroponic system can be contained inside the SmartBox in perpetuity. An idea location is a 20 feet x 30 feet plot of land that gets a lot of sunlight.

The Smart Farm Nexus will also be an opportunity for before and after school programming to grow young minds by STEM + AG technology teaching and outreach. Teaching from Step 1 to Step Completion. Students will have the opportunity to learn job readiness skills, for example, carpentry, cyber security, edgecomputing, electrical wiring, hydroponics, IoT (data acquisition), low-voltage wiring, networking, programming (data science), rapid prototyping, robotics, solar installation, Wi-Fi and antenna installation/deploy, to name a few, which are all relevant jobs in the future global economy. The Smart Farm Nexus is the realization and implementation of sustainability and green technology. Through technology, instill and strengthen the desire to learn to reverse the effects of human activity on earth. The Smart Farm Nexus is an amalgamation of ideas and technology for growing young minds for job-readiness in the new economy of globalization.

For the human race. Grow food one box at a time anywhere on earth (or in the universe). Which of our youth will go to Mars?

-- Theo

PPE, personal protection equipment, and COVID-19 awareness and best practices are being integrated into our framework, STAY TUNED. Most of this planning will be focused around high school aged and older individuals (including adults). All other participants will be required to have adult guardians attend an ONLINE workshop on current events, where safe habits will be discussed.

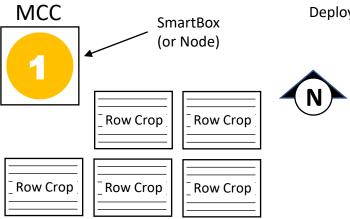


Maximum Yield Food Production



SmartBox

Micro-system Deploy and Manage





This system was deployed and maintained. This layout was developed before the SmartBox was conceptualized.

This is the "Row Crop". The harvest was eaten. No pesticides. No fungicide. No herbicide. Organic and petroleum based fertilizers were used.







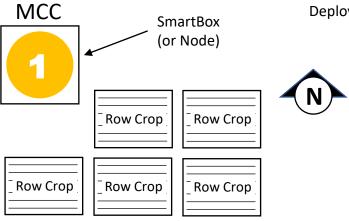
Contact: theo@techequation.org

Maximum Yield Food Production



SmartBox

Micro-system
Deploy and Manage

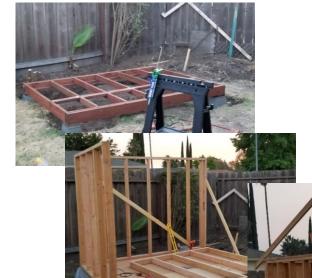


Residential SmartBox

6ft x 8ft Prototype

This system was deployed as a prototype (6ft x 8ft). The form factor of the production model will not have the solar panels overhanging as shown. Electrical wiring and battery installation will require professional training/assistance.

The *SmartBox* is not a permanent structure. It can be removed with the proper equipment and machinery.



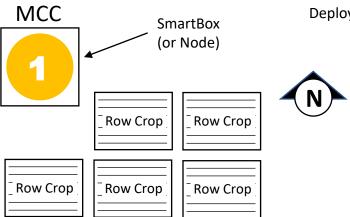


Maximum Yield Food Production



SmartBox

Micro-system
Deploy and Manage



Boys and Girls Club

GardenX 2018, Positive Sprouts K - 5

This system was deployed but not maintained. These are not *SmartBoxes*. These planters would have accounted for the "Row Crop", see diagram (*left*).

The original plan was to deploy a 5ft x 5ft *SmartBox* (a non-production model). <u>No SmartBox</u> was built for this site. No vegetables were harvested and eaten.



Contact: theo@techequation.org

ACADEMY OF SCIENCE TECHNOLOGY ENGINEERING MATHEMATICS AND AGRICULTURE

PROJECT





Silicon Valley EAST, which part are you building?

Where do you begin?





Silicon Valley EAST, which part are you building?