

Like Share < 388k

Follow < 80.1K followers

YouTube 550K

 Follow < 8.7k

NEWSLETTER ([HTTPS://CONFIRMSUBSCRIPTION.COM/H/1/62B347AD88B7A90A](https://confirmsubscription.com/h/1/62B347AD88B7A90A))

---

THE

CHANNELS

EN

---

# The World's Largest Vertical Farm Breaks Ground

Written by **KARI PAUL** (/AUTHOR/KARIPAUL)

July 10, 2015 // 11:18 AM EST



(/EN\_US?TRK\_SOURCE=HEAD|

---



The location that will soon be the world's largest indoor farm. (Image: Kari Paul/Motherboard)

As the PATH train rolls into Newark, New Jersey, the landscape greeting passengers consists largely of a bleak, abandoned warehouses surrounding the station. The city, once a major industry hub, has declined (<http://munchies.vice.com/articles/the-worlds-largest-indoor-vertical-farm-is-coming-to-new-jersey>) since its peak manufacturing days. But a company breaking ground there on Thursday wants to change that, and inject sustainable food production into the area.

Urban agriculture company AeroFarms began construction this week on what will soon become the world's largest vertical indoor farm, a version of urban agriculture that grows plants upwards through erect plant beds rather than horizontally. The first development phase will be finished by the end of 2015, converting an old steel factory in Ironbound, one of the more blighted industrial sections of Newark, into a 69,000 square foot unprecedented agriculture center and global headquarters for the company. The project received more than \$30 million in funding through private and public partnerships and will create 78 jobs in the area, where unemployment is twice the national average.



David Rosenberg, CEO of AeroFarms, speaks at the groundbreaking of the new center. (Image: Kari Paul/Motherboard)

AeroFarms uses aeroponic technology to grow plants at a rate of efficiency that eclipses that of traditional farming. The process involves placing the seeds in a cloth medium and showering them with a nutrient mist to make them grow, using 95 percent less water than field farming. With LED light installations, the company grows food indoors year-round without sun or soil, stacking the plants on top of each other in vertical columns.

“This is really a new marriage of biology and engineering,” AeroFarms chief marketing officer Marc Oshima said of the process. “We think about the vertical beds for growing, the LED lights—it’s about how you create the whole system, and the whole approach. In terms of per square foot, we have 75 times greater productivity on an annualized basis than a field farmer. So this is a way you can do farming at scale, and a way you can compete with a field farmer today.”



A rendering of the vertical farm set-up (Image courtesy of AeroFarms)

Oshima said the company monitors more than 10,000 data points for each harvest, allowing it to maximize the growing process and create more efficient output than traditional agriculture.

“It’s controlled, we aren’t leaving it to the vagaries of mother nature,” he said. “It’s hard to control weather, and other factors. Here it’s about precision agriculture. So when you think about it, we are monitoring in real time the nutrient uptake, we are understanding what light plants need for more effective photosynthesis. Those are hard things to replicate outside.”

At the groundbreaking ceremony, officials including Newark mayor Ras J. Baraka, New Jersey acting governor Kim Guadagno spoke while the company passed around smoothies and salad made with its own aeroponic kale and other leafy greens.

Food grown at the urban farm will be first be distributed to local schools, farmer’s markets and other businesses but Oshima said it will generate enough produce—up to 2 million pounds a year—to distribute throughout the area surrounding New York City.



Vegetables grown by AeroFarms that were served at the groundbreaking ceremony. (Image: Kari Paul/Motherboard)

Representatives from AeroFarms and government officials who spoke on Thursday said the highly-efficient method is a way to combat the global food crisis while creating little waste.

“This will feed the people of the world,” acting governor Kim Guadagno said at the ceremony. “By 2050, I won’t be here, but by 2050 there will be 9 billion people who need to eat, and the solution is right here on the property you are standing on.”

Drew Curtis, the director of community development and environmental justice at the Ironbound Community Corporation, which has partnered with AeroFarms to recruit local employees, said the community is wary of highly-polluting industries in the area and welcomed the more sustainable alternative.

“Ironbound’s industrial legacy has left behind a lot of toxic sites, and current industry which causes lots of air pollution,” he said. “So we are overburdened by these kinds of negative environmental impacts. Residents want to see jobs and get back to work, but they want jobs

that don't add to the pollution in the neighborhood. So a project like this is perfect."

Achior Oliver, a new AeroFarms employee who said he recently worked to install LED lights on some of the farming set ups, said the new job makes him feel like he can support his family while helping the community.

"It's definitely good for the area; eating healthy is kind of hard around here, especially with all the unhealthy things in the environment," he said. "Fortunately, things are looking prettier every year, there are new things growing and building around here. If you don't grow, you fade away. So this is good for the community."

The building that broke ground Thursday is the company's largest farming project yet, but it has nine other farms completed and even larger one in the works.

"We are interested in how we address this on the global basis, so this is an awesome opportunity for us to continue our mission," Oshima said. "There's been so much demand and excitement about what we are doing. It's just fundamentally changing how we can bring the farm to the consumers, and how we can do it commercially and do it at scale."

--

**TOPICS:** future of food (/tag/future+of+food), farming (/tag/farming), agriculture (/tag/agriculture), vertical farms (/tag/vertical+farms), New Jersey (/tag/New+Jersey), newark (/tag/newark), aerofarms (/tag/aerofarms), urban agriculture (/tag/urban+agriculture), Kim Guadagno (/tag/Kim+Guadagno), Ironbound Community Corporation (/tag/Ironbound+Community+Corporation)

**SHARE**

**COMMENT ([HTTP://MOTHERBOARD.VICE.COM/READ/THE-WORLDS-LARGEST-VERTICAL-FARM-BREAKS-GROUND#DISQUS\\_THREAD](http://motherboard.vice.com/read/the-worlds-largest-vertical-farm-breaks-ground#disqus_thread))**

**f FACEBOOK**

**t TWITTER**

**g+ GOOGLE PLUS**

**t TUMBLR**

RECOMMENDED



Holiday Cooking with Soylent ([/read/holiday-cooking-soylent?trk\\_source=recommended](/read/holiday-cooking-soylent?trk_source=recommended))

I Waited Five Months for My Soylent and Now I Can't Get Rid of It ([/read/i-waited-five-months-for-my-soylent-and-now-i-cant-get-rid-of-it?trk\\_source=recommended](/read/i-waited-five-months-for-my-soylent-and-now-i-cant-get-rid-of-it?trk_source=recommended))



An Investment Banker's Solution to Factory Farming ([/read/an-investment-bankers-solution-to-factory-farming?trk\\_source=recommended](/read/an-investment-bankers-solution-to-factory-farming?trk_source=recommended))

Pot's Pesticide Problem ([/read/pots-pesticide-problem?trk\\_source=recommended](/read/pots-pesticide-problem?trk_source=recommended))





[My Ever-Escalating War Against Gophers \(/read/backyard-biotech-to-kill-a-gopher?trk\\_source=recommended\)](/read/backyard-biotech-to-kill-a-gopher?trk_source=recommended)

[The Doomsday Vault for the World's Seeds \(/read/the-doomsday-vault-for-the-worlds-seeds?trk\\_source=recommended\)](/read/the-doomsday-vault-for-the-worlds-seeds?trk_source=recommended)



---

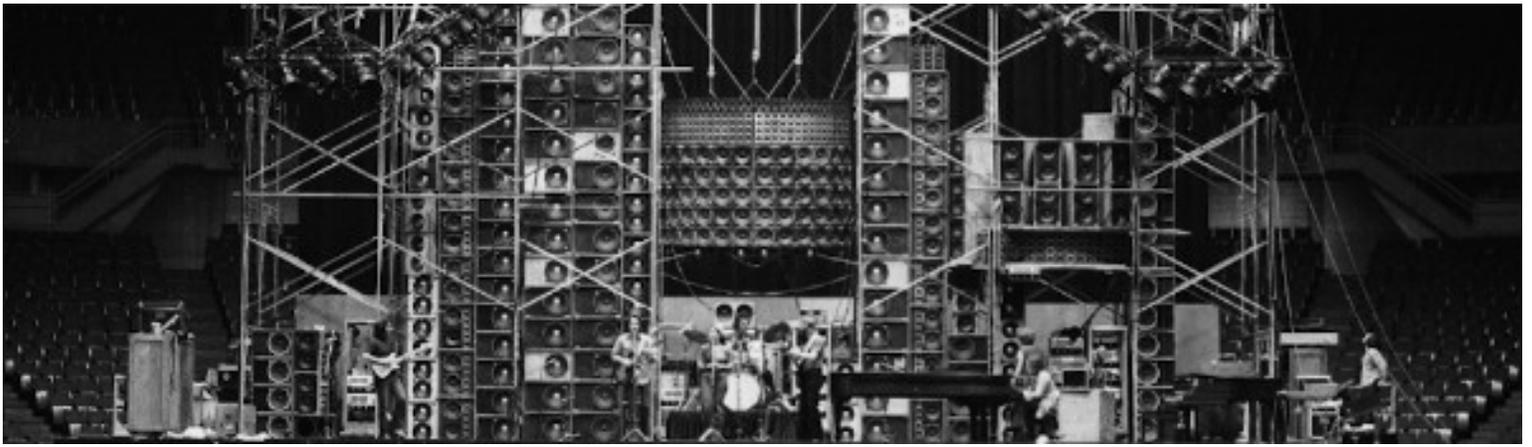
## MOST POPULAR



[\(/read/what-computers-dream-of-when-they-look-at-porn-nsfw?trk\\_source=popular\)](/read/what-computers-dream-of-when-they-look-at-porn-nsfw?trk_source=popular)

**What Computers Dream of When They Look at Porn (NSFW) (/read/what-computers-dream-of-when-they-look-at-porn-nsfw?trk\_source=popular)**

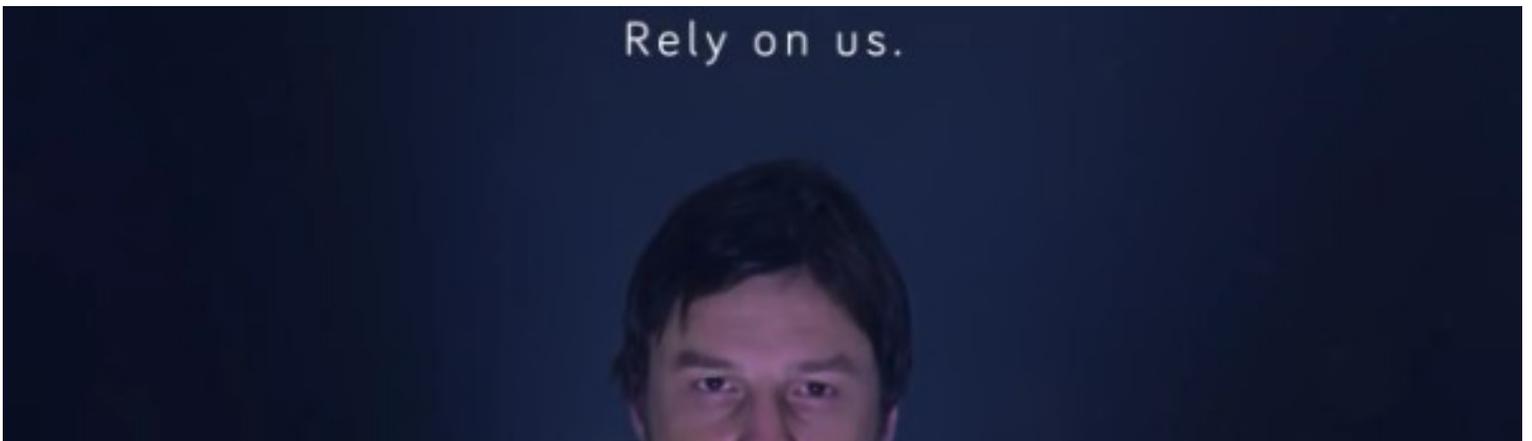
---



[\(/read/the-wall-of-sound?trk\\_source=popular\)](#)

**The Wall of Sound** ([/read/the-wall-of-sound?trk\\_source=popular](#))

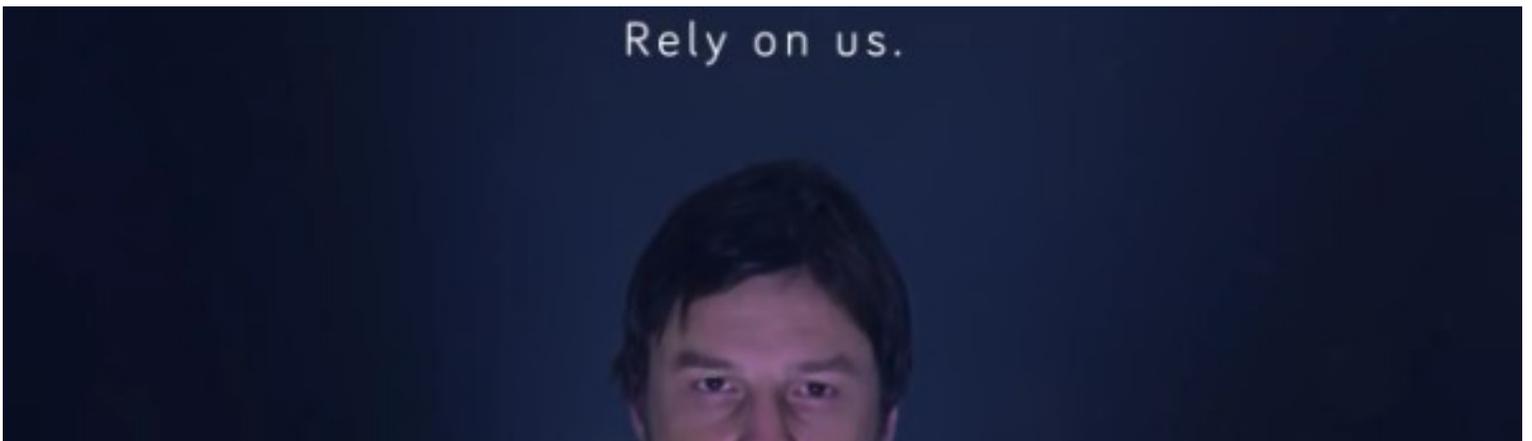
---



[\(/read/spy-tech-company-hacking-team-gets-hacked?trk\\_source=popular\)](#)

**Spy Tech Company 'Hacking Team' Gets Hacked** ([/read/spy-tech-company-hacking-team-gets-hacked?trk\\_source=popular](#))

---



[\(/read/hacking-team-asks-customers-to-stop-using-its-software-after-hack?trk\\_source=popular\)](#)

**Hacking Team Asks Customers to Stop Using Its Software After Hack** ([/read/hacking-team-asks-customers-to-stop-using-its-software-after-hack?trk\\_source=popular](#))

---



(/read/heres-how-you-make-12000-in-profit-a-day-selling-virtual-guns?trk\_source=popular)

**Here's How You Make \$12,000 In Profit a Day Selling Virtual Guns (/read/heres-how-you-make-12000-in-profit-a-day-selling-virtual-guns?trk\_source=popular)**

---



(/read/why-does-in-flight-wi-fi-drop-over-new-mexico-due-to-government-restrictions?trk\_source=popular)

**Why Does In-Flight Wi-Fi Drop Over New Mexico Due to 'Government Restrictions'? (/read/why-does-in-flight-wi-fi-drop-over-new-mexico-due-to-government-restrictions?trk\_source=popular)**

---



COMMENTS

---

0 Comments

[motherboard.vice.com](http://motherboard.vice.com)

 Login ▾

 Recommend

 Share

Sort by Best ▾



Start the discussion...

Be the first to comment.

---

 Subscribe

 Add Disqus to your site

 Privacy

© 2015 Vice Media LLC

[About](#) [Contact](#) [Privacy Policy](#) [Terms of Use](#)

 print