At Kernel, your veggie burger will be served by a robot

In many ways, Kernel resembles other restaurants catering to office workers — it's a vegan fast-casual joint sitting in an unassuming block of Manhattan, nestled between outposts of Paris Baguette and Just Salad. It has sandwiches. It has sides. It has a smartphone app. It has scheduled pickups. It has… a robotic arm?

Kernel, the brainchild of Chipotle co-founder Steve Ells, has been called a possible reinvention of lunch. The menu was designed by former Eleven Madison Park chef and Kernel chief culinary officer Andrew Black. Unlike other restaurants serving Manhattan's office workers, Kernel only has three human employees on-site at all times, which Black tells *The Verge* is the point.

"Traditional fast food restaurants have 8-15 people on staff for the week, which creates a lot of administrative work for managers, so they can't focus on delivering value to customers," Black says.

The key to this was finding a way to keep up with potential orders and maintain quality without increasing administration costs. Supposedly, the robotic arm is the solution.

a:hover]:text-black [&>a:hover]:shadow-underline-black dark:[&>a:hover]:text-gray-e9 dark:[&>a:hover]:shadow-underline-gray-63 [&>a]:shadow-underline-gray-13 dark:[&>a]:shadow-underline-gray-63″>*Vegetarian burger patties on the specially designed oven.*

a:hover]:text-black [&>a:hover]:shadow-underline-black

dark:[&>a:hover]:text-gray-e9 dark:[&>a:hover]:shadow-underline-gray-63 [&>a]:shadow-underline-gray-13 dark:[&>a]:shadow-underline-gray-63″>*Kernel’s automated kitchen runs like an assembly line.*

a:hover]:text-black [&>a:hover]:shadow-underline-black dark:[&>a:hover]:text-gray-e9 dark:[&>a:hover]:shadow-underline-gray-63 [&>a]:shadow-underline-gray-13 dark:[&>a]:shadow-underline-gray-63″>*The restaurant serves vegetarian fast food, including a “burger” made from sweet potato, quinoa, and chickpeas.*

Kernel worked with robotics company Kuka, which provided the robotic arm. Its significant tech innovation is the software that determines how long to cook the items.

Olaaf Rossi, Kernel’s chief technology officer, says the company was mindful of how they designed the entire system, from finding Kuka to choosing the microservice to help keep reheating times consistent.

“We went through all the steps in designing the program [to run the oven and assembly system] and found a lot of waste, like in conveyance or movement or inventory,” Rossi says. “So we were mindful when designing that to reduce the waste so that it can work with a three-person system at a reasonable pace and not stress out our machines or people.”

a:hover]:text-black [&>a:hover]:shadow-underline-black dark:[&>a:hover]:text-gray-e9 dark:[&>a:hover]:shadow-underline-gray-63 [&>a]:shadow-underline-gray-13 dark:[&>a]:shadow-underline-gray-63″>*Kernel’s first location is in midtown New York City, beside other fast-casual chains serving office workers.*

So far, Kernel only has one branch, on Park Avenue South in midtown Manhattan. But it has big plans. It will expand its footprint in New York City by the end of the year. I asked Black if there was a tipping point when it would start opening

new locations. Was it a certain number of customers at the midtown store? No, in opening the first store, the plan was always to open more.

Kernel raised $36 million in funding from several venture capital firms. Its investors include Raga Partners, Rethink Food, Virtru Investment Partners, and Willoughby Capital. PitchBook classifies it as a robotics company valued at $100 million.

“But what about the food?” you ask.