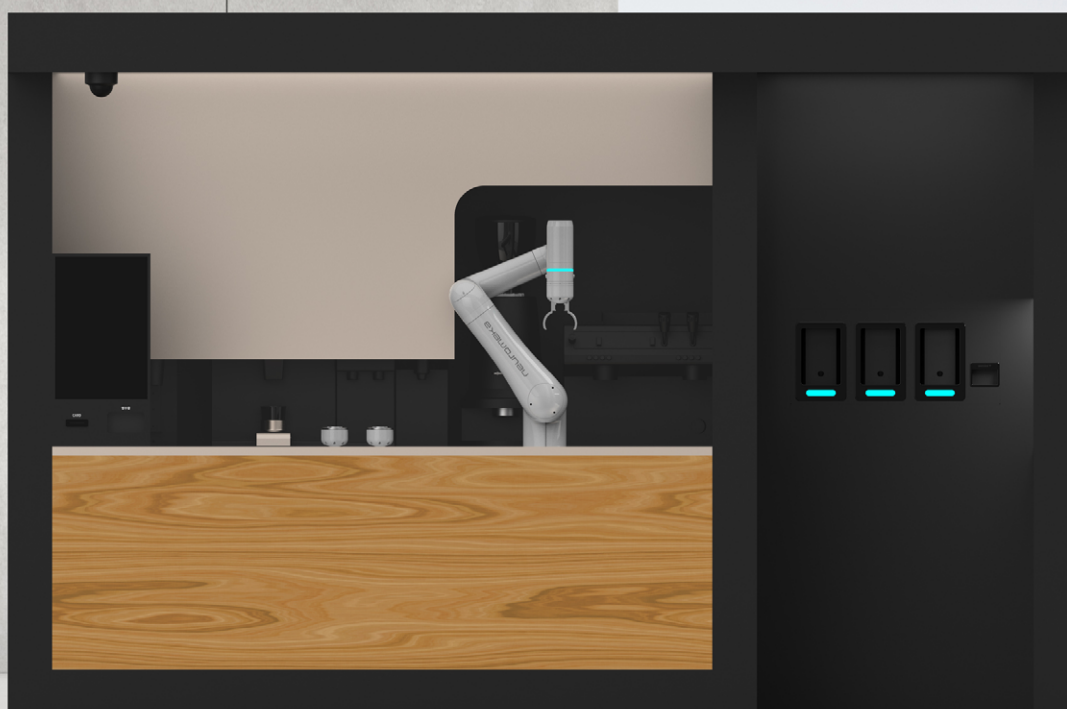


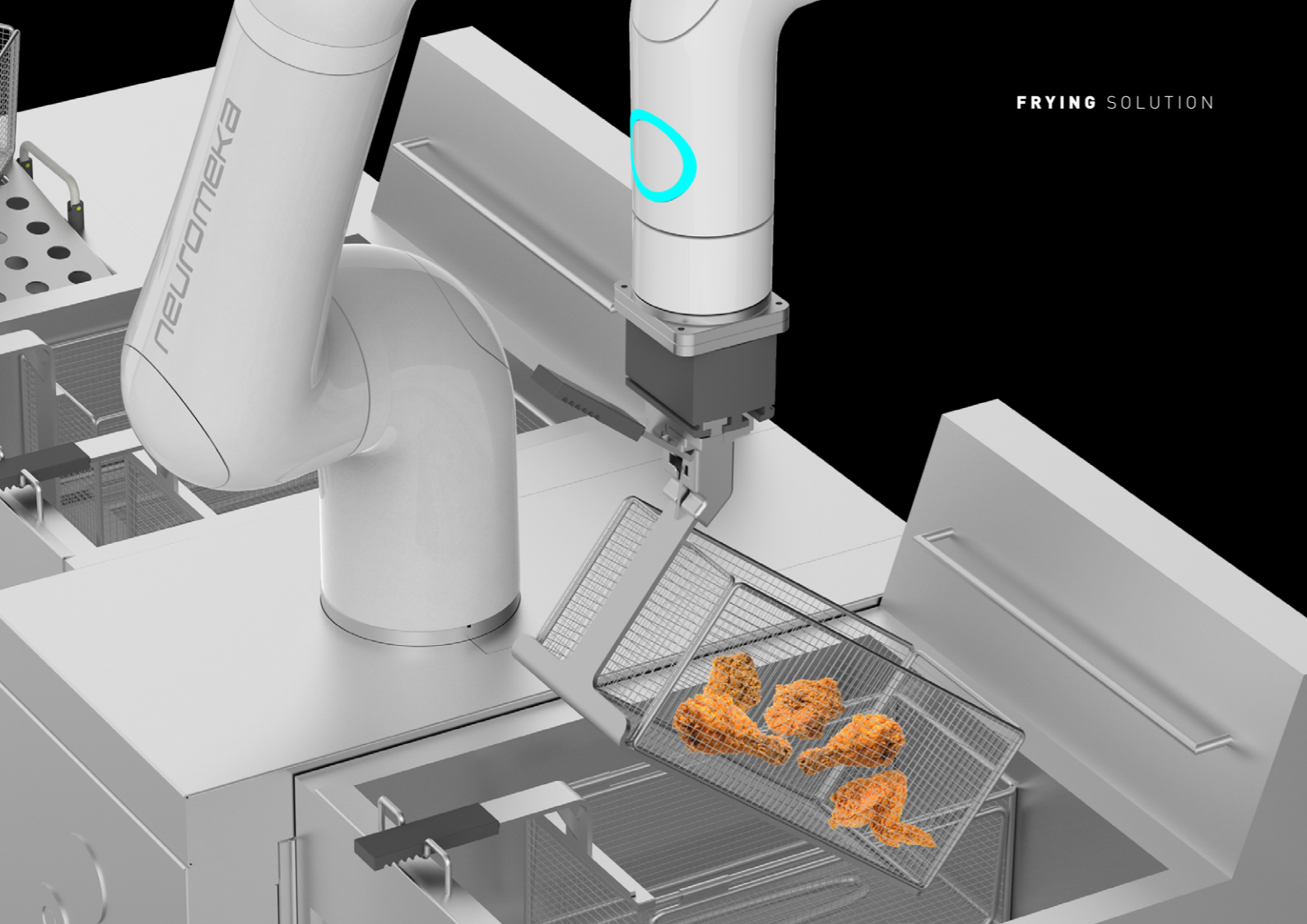


F&B SOLUTION



CAFE / FRYING / NOODLE

V230605



FRYING SOLUTION

CAFE SOLUTION



NOODLE SOLUTION

F&B SOLUTION CAFE / FRYING / NOODLE

Designed based on Neuromeka's extensive expertise in collaborative robot manufacturing technology, the cafe solution provides safe and efficient beverage preparation and service at a reasonable price. By automating order taking, beverage preparation, and serving tasks, our solution enables safe and efficient operation of unmanned cafes. It allows customization of recipes according to customer requirements, and it precisely and flawlessly repeats the inputted preparation tasks, ensuring consistent and high-quality service.

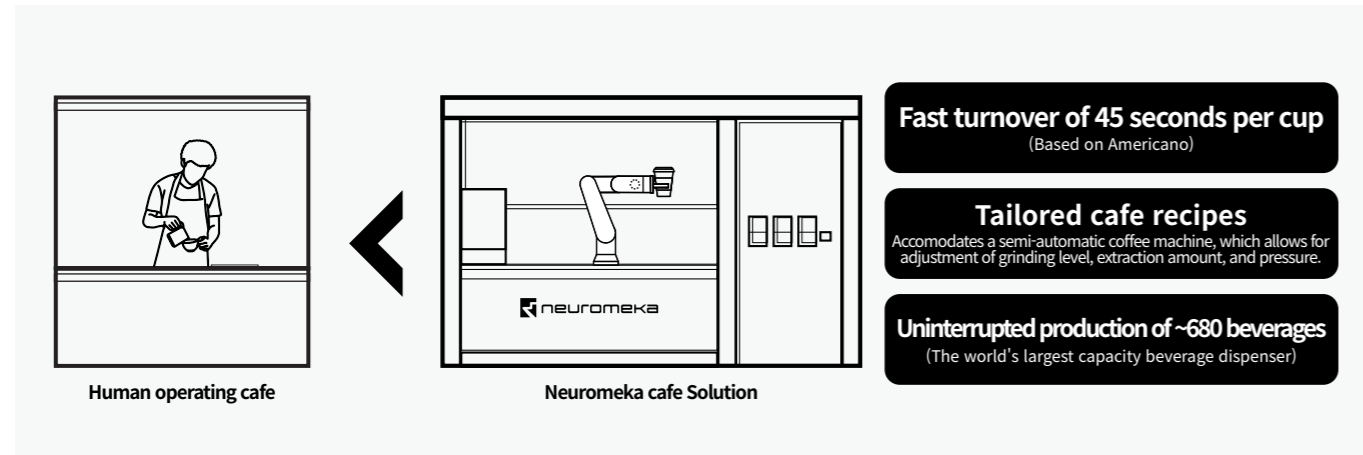


C A F E S O L U T I O N

Designed based on Neuromeka's extensive expertise in collaborative robot manufacturing technology, the cafe solution provides safe and efficient beverage preparation and service at a reasonable price. By automating order taking, beverage preparation, and serving tasks, our solution enables safe and efficient operation of unmanned cafes. It allows customization of recipes according to customer requirements, and it precisely and flawlessly repeats the inputted preparation tasks, ensuring consistent and high-quality service.

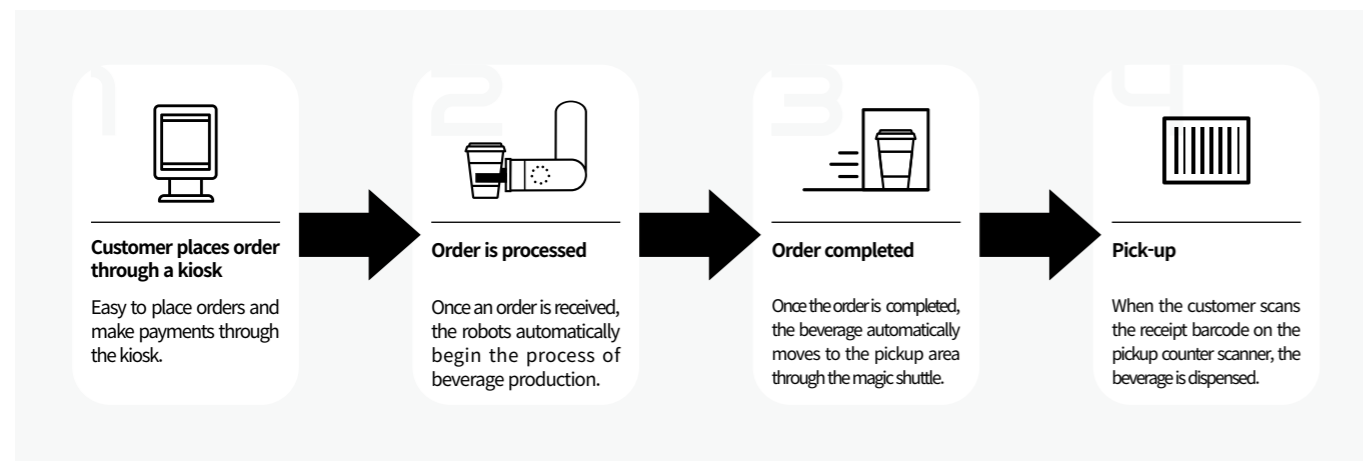
High productivity compared to human operators

The cafe solution significantly boosts productivity by enabling the production of high-quality beverages in a shorter timeframe compared to human operators.



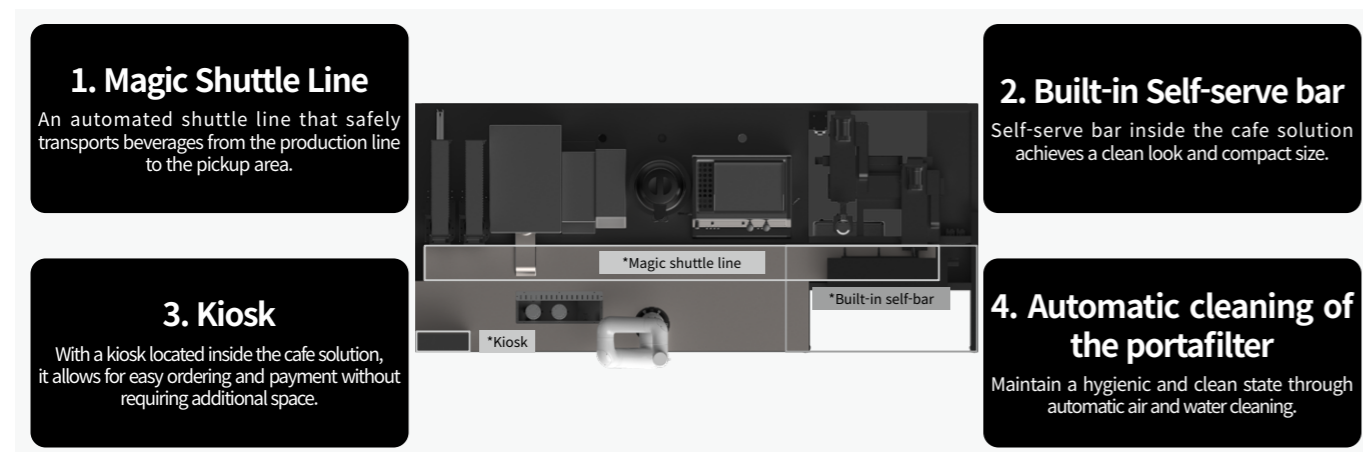
Implementation of 24/7 unmanned stores

Neuromeka's cafe solution enables 24/7 unmanned operation without the need for human presence, utilizing collaborative robots. It integrates with kiosks to provide a fully unmanned service, from order placement to beverage preparation and serving.



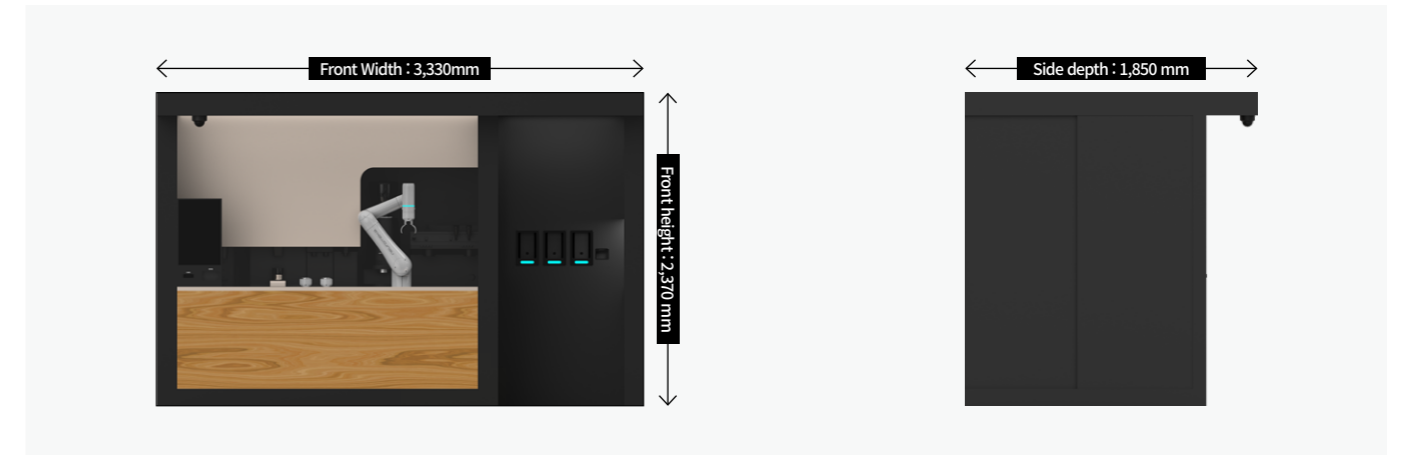
Contactless automation of the entire process

all services provided to customers through ordering and payment via kiosks, collaborative robots, and automation devices for manufacturing and serving, eliminating the need for face-to-face interactions.



Compact size with minimal installation constraints

The café solutions can be installed in relatively small spaces compared to traditional cafes. When repurposing existing spaces, it allows for efficient utilization of the available area. Moreover, there are no restrictions on installation in places with high-traffic locations, such as cafes, shopping malls, and hotels.



Fast and easy management

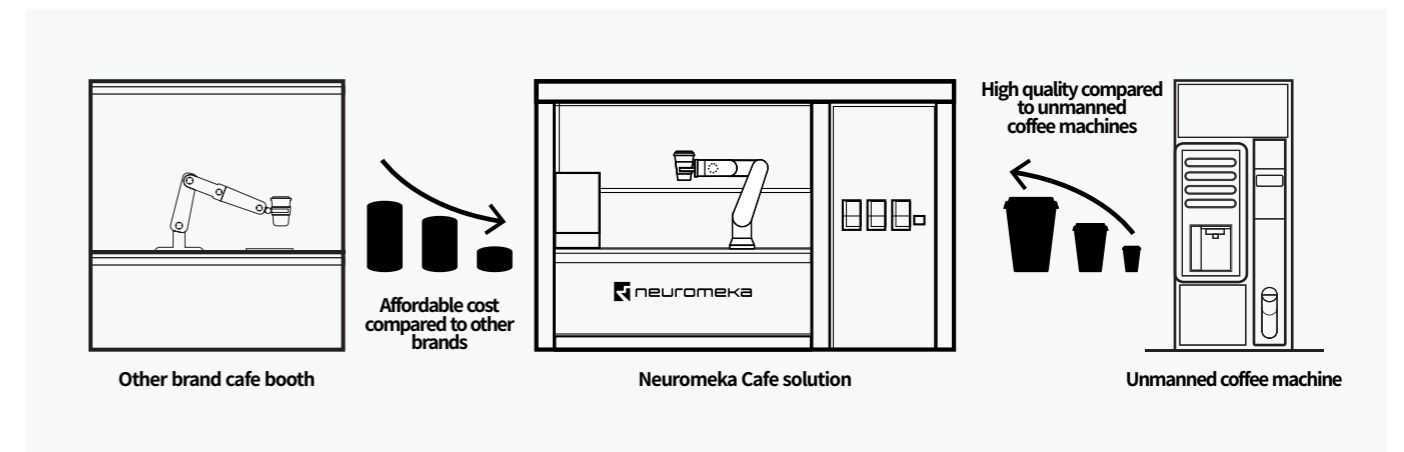
Neuromeka's cafe solution is easy and convenient to manage. In the event of any issues, you can rely on a dedicated team for prompt assistance with the cafe solution.

Cafe Solution Maintenance	
Operation & Maintenance Training	After installing the cafe template, IndyPD conducts operation & maintenance training so that customers who are new to robots can operate it immediately.
Remote Management Service	By applying IndyCare, Neuromeka's own remote management service, you can quickly respond to problems such as payment errors and robot malfunctions.
Cell Service	If an unforeseen problem occurs, you can quickly receive help by phone call from the Neuromeka Café solution team.
Modularization of the device	Each device (coffee machine, ice maker, sparkling water maker, etc.) is produced as an individual module, enabling quick and easy A/S.

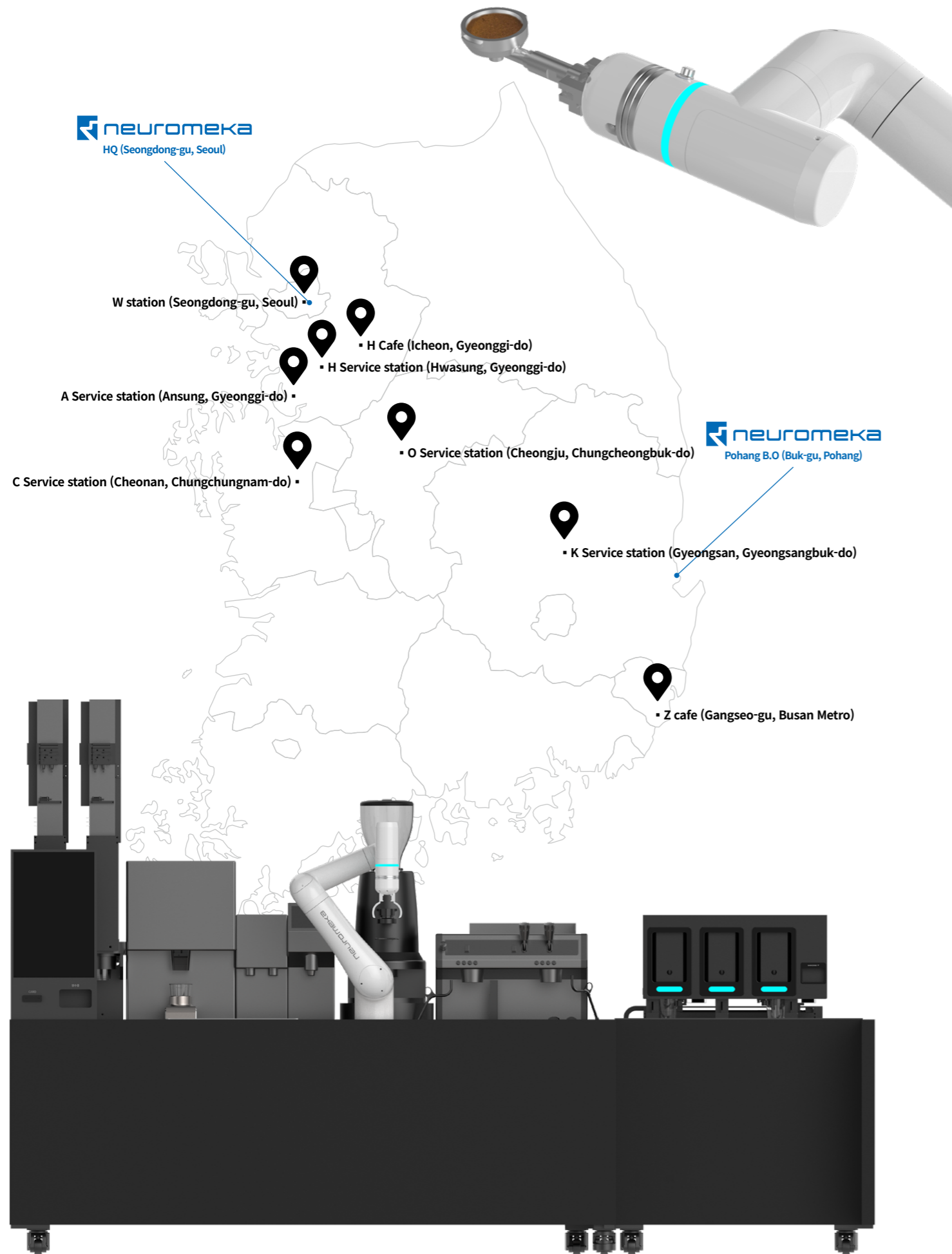
INDYCARE

Affordable price without financial burden

By directly manufacturing and selling the solutions, it is possible to offer our solutions at an affordable price without any additional distribution margin. The cafe solution offers high-quality service and can be utilized at lower cost compared to other cafe booth options.



Cafe solution installation sites



Cafe solution menu options

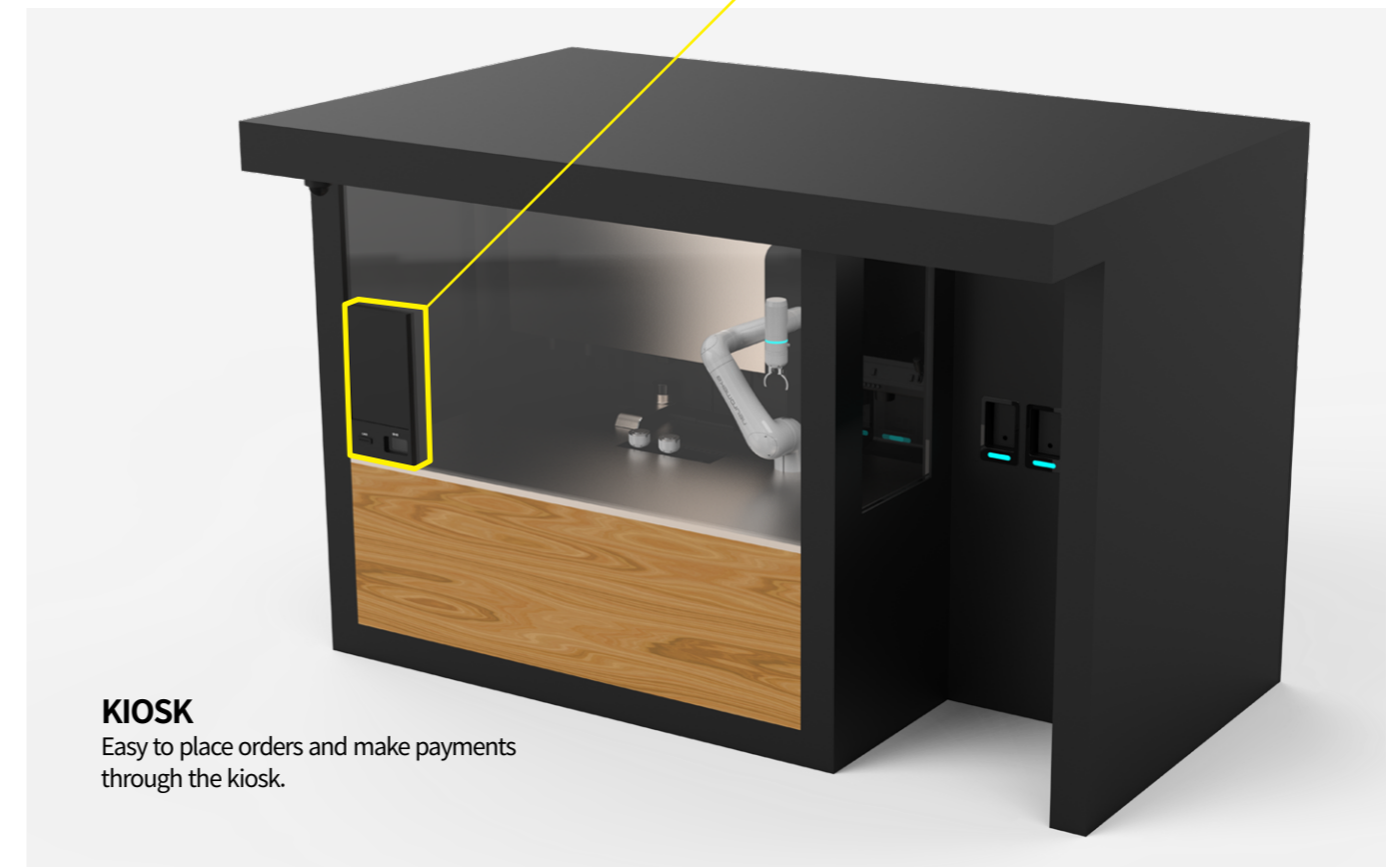
Basic Menu

- Americano (Iced) 
- Americano (Hot) 

Extra-Menu

*Other menu items can be added

- Espresso (H) 
- Cappuccino (H) 
- Caramel latte (I) 
- Caramel latte (H) 
- Cafe latte (I) 
- Cafe latte (H) 
- Vanilla Latte (I) 
- Vanilla Latte (H) 
- Fruit Ade (I) 
- sparkling water (I) 



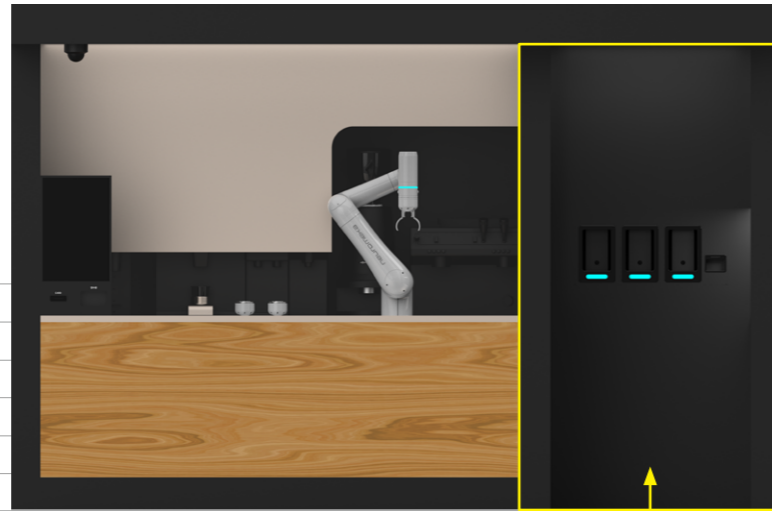
KIOSK

Easy to place orders and make payments through the kiosk.

Cafe solution specification

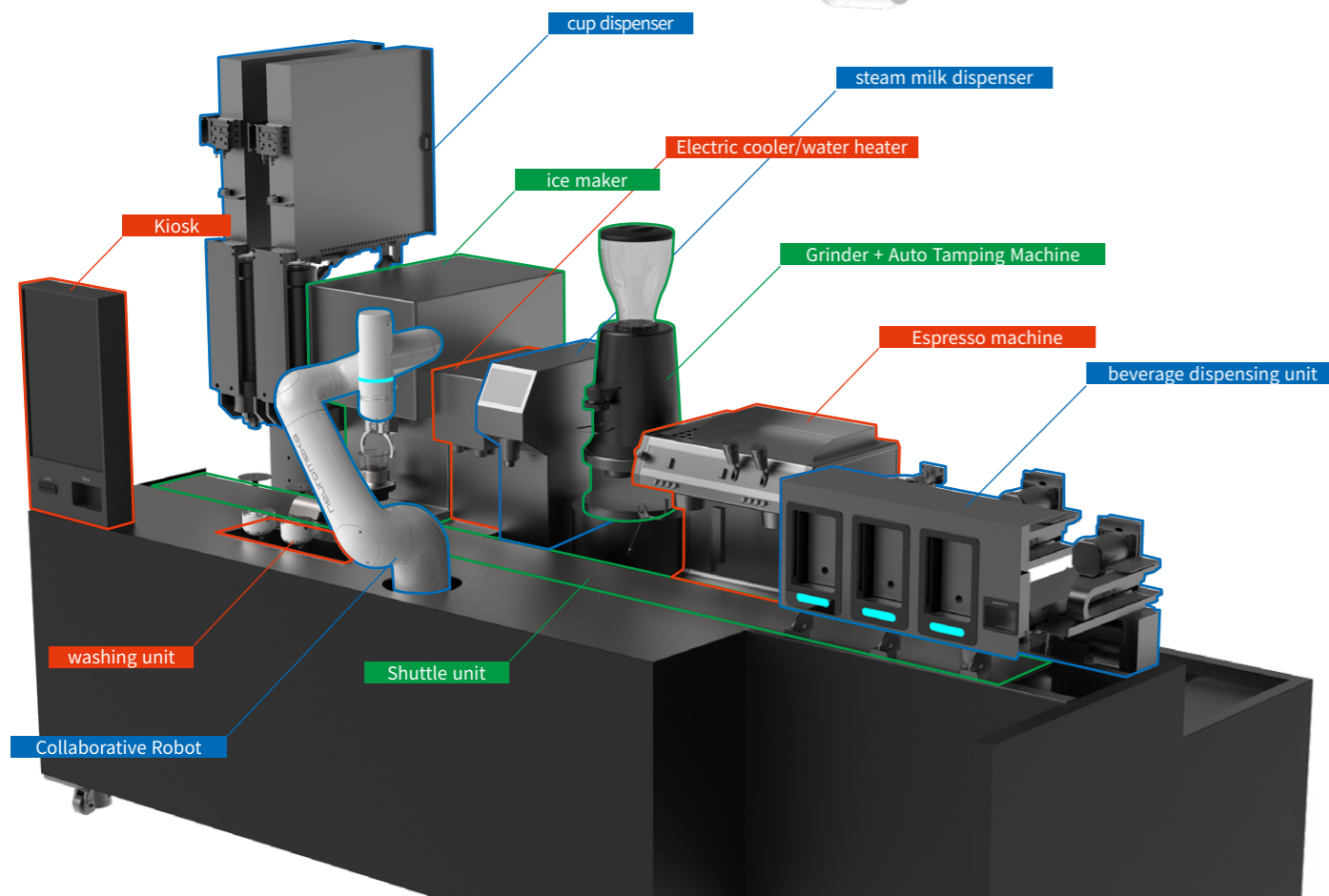
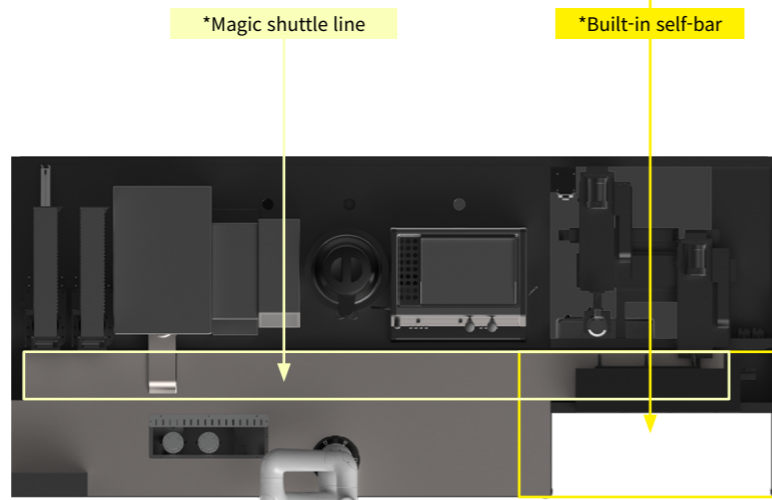
Cafe solution

Size	(W)3,330 x (D)1,850 x (H)2,370 mm
Weight	1,500kg
Average order completion time	45 seconds / 1 cup
Total input power	220V
Total power consumption	12kW(60A)
Maximum power	18kW



Cafe Solution Configuration

*Includes option to change equipment as needed



Cafe solution Equipment Specification

Collaborative Robot Indy7

Payload	7kg
Joint range of motion	1,2,3,4,5 : ±175deg 6 : ±215deg
Maximum joint speed	1,2,3 : 150deg/s 4,5,6 : 180deg/s
Working radius	1.3m
Repeatability	100µm
Weight	28kg



Espresso machine (FUTURA F60)

Manufacturer / Origin	FUTURA / ITALY
Capacity	8L
Power Consumption	230V (60Hz, 3kW)
Size	580*510*490
Weight	55kg
Heat exchanger	2*0.45



Ice maker (ICETRO ID-150AN)

Size	421*635*710
Maximum production capacity	145(kg / day)
Storage capacity	4.5kg
Ice form	nugget
Power	AC 220V 60Hz
Refrigerant	R-404A 350g



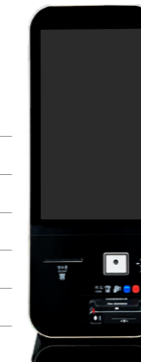
Grinder (FIORENZATO F64E)

Size	230*270*615
Power	220V / 60Hz
Blade	64mm
Power Consumption	350W
Rotational speed	1550RPM(60Hz)
Manufacturer / Origin	FIORENZATO / ITALY



Kiosk (OQ-28_S8_CR)

Size	330*300*810
CPU / OS	Intel i5 / Windows 10
Memory / SSD	SoDIMM 4G(MAX8G) / 128G SSD
Card reader	MSR+IC
Barcode scanner	Scan Pixel : 640*480 (CMOS)
Receipt printer	thermal transfer printer



Auto tamper (PUQ Press - M2)

Size	380*180*170
Material	Stainless
Voltage	110-23-V/50-60Hz
Power Consumption	72W
Weight	6kg
Manufacturer / Origin	Barista Technology BV / Netherlands



Electric water heater (HWD-0901B)

Size	198*502*480
Capacity	9L
temperature	5~35°
extraction structure	Electronic extraction structure



Steam Milk Dispenser (UBER MILK)

Size	180*485*540
Power	220V, 3kW
Weight	25kg
Feature	Minimize milk waste



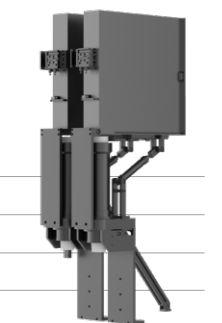
Barcode scanner (VUQUEST 3320G)

Size	73*51*26
Input voltage	5VDC ±0.25V
Scan focus	127mm
Scan pattern	Area Image (838*640 pixel array)



Cup dispenser

Size	380*617.5*1,409
Capacity(ice cup)	420ea (60ea*7set)
Capacity(hot cup)	266ea (38ea*7set)
Operating	I/O contact, cylinder drive





FRYING SOLUTION

The Neuromeka frying template is an automated cooking system for frying that can effectively replace simple, repetitive, hazardous, and time-consuming tasks using collaborative robots. It safeguards workers from burns resulting from high-temperature oil and noxious vapors, while ensuring consistent quality products by precisely replicating the same recipe.

The solution has obtained a 14um certification for robot repetition accuracy and has undergone repeated testing to ensure reliability. Using bone-in chicken, it can cook up to 20 chickens within an hour, and you can also prepare side dishes like French fries and cheese balls that require the use of oil. In addition, leveraging our extensive expertise in cooperative robot manufacturing and installation, we provide an optimized operating system and the ability to customize the solution according to individual customer requirements.

📍 Frying solution installation sites

- K chicken franchise 1 (Gangdong-gu, Seoul)
- K chicken franchise 2 (Seongdong-gu, Seoul)
- K chicken franchise 3 (Namyangju, Gyeonggi-do)
- K chicken franchise 4 (Hwaseong, Gyeonggi-do)
- M chicken franchise 1 (Boryeong, Chungcheongnam-do)
- M chicken franchise 2 (Buk-gu, Gwangju)
- M chicken franchise 3 (Gimpo, Gyeonggi-do)
- M chicken franchise 4 (Namyangju, Gyeonggi-do)



Frying solution menu options

- Fried Chicken
 - French Fries
 - Onion Rings
 - Chicken Tenders
 - Fried Shrimp
 - Mozzarella Sticks
 - Calamari
- *All other fried foods can be discussed and applied

Features of Frying solution

Advantages of the Frying Solution:

Workers are protected from burns caused by high-temperature oil and harmful vapors.
 Consistent and high-quality products are provided through precise repetition of the input recipe.
 Increased efficiency through automation of repetitive and time-consuming tasks in the cooking process.

Frying Solution Work Efficiency:

Able to cook 20 chickens per hour using bone-in chicken.
 Provides additional choices for various side menu items such as French fries and cheese balls.
 Thorough verification of water dough usability for cooking.

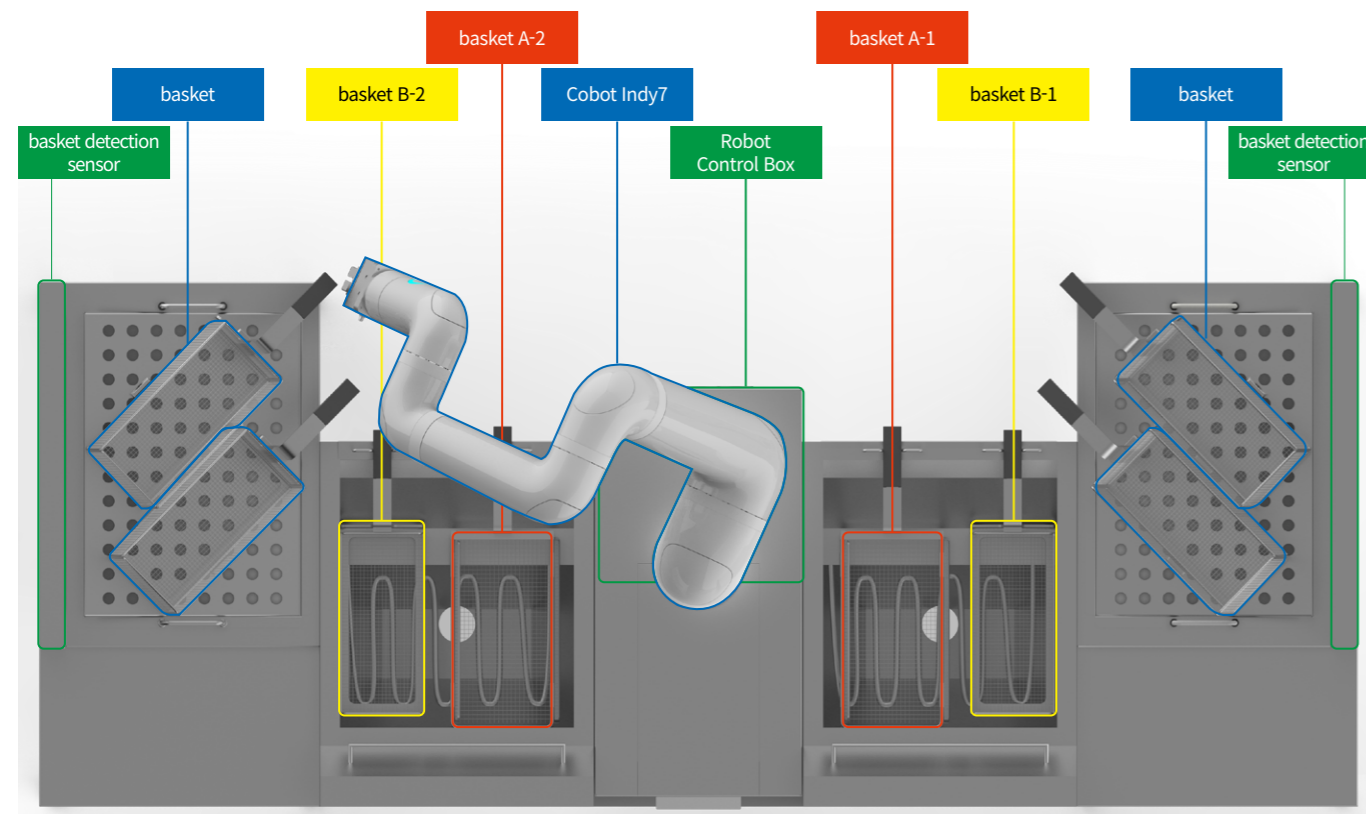
Frying Stability:

Completed extensive testing for long-term reliability and performance verification.
 Certified for 14um robot repeatability.

Specifications

Power and Facility

Size	(W)2,170 x (D)1,000 x (H)1,700 mm
Weight	200kg
Average cooking time	11 minutes / 1 Chicken
Input power	220V / 60Hz
Power Consumption	1kW



Specifications of Frying solution equipment

Collaborative Robot Indy7

Payload	7kg
Joint range of motion	1,2,3,4,5 : ±175deg 6 : ±215deg
Maximum joint speed	1,2,3 : 150deg/s 4,5,6 : 180deg/s
Working radius	1.3m
Repeatability	100µm
Weight	28kg



Gas Fryer (Rinnai RFA-228G)

Size	460*600*1000
Weight	36kg
Capacity	22L
Input Power	220V / 60Hz
Power Consumption	16W
Gas consumption	17kW (LP Gas), 18kW (City Gas)



Electric Fryer (Rinnai RFA-228E)

Size	450*600*1000
Weight	36kg
Capacity	22L
Input Power	220V / 60Hz
Power Consumption	7kW



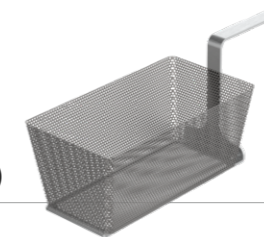
Tablet (Teach pendant, CONTY)

Battery	8,000mAH
Memory / Storage	4GB / 64GM eMMC
CPU	Media Tek Deca-Core (10-core)
Display	10.1inch / 2560 x 1600 (WQXGA)
Network	Wi-Fi 2.4GHz / 5GHz (IEEE 802.11 ac/a/b/g/n) / GPS
Size/ Weight	(W) 239mm x (H) 166.9mm x (D) 7.5mm / 550g



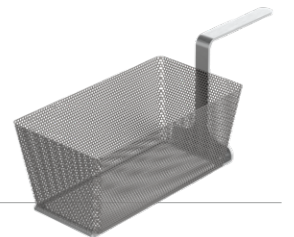
Basket 1 (in-house production)

Usage	Frying
Compatibility	for both robots and humans
Size	160*314*155
Weight	1.2kg



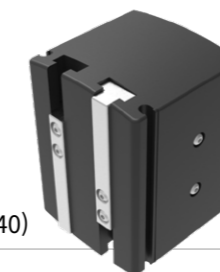
Basket 2 (in-house production)

Usage	Frying
Compatibility	for both robots and humans
Size	160*314*155
Weight	1.2kg



Electric Gripper (Gimatic MPLM3240)

Gripping Force	210N
Stroke	2 x 20mm
Power Supply	24Vdc



CCTV (ipTIME C200)

Pixel/Resolution	200M pixel / Full HD 100P (1920 x 1080)
Feature	Wireless communication, night mode, Android app management, two-way voice
Size/Weight	(W) 76.2 x (H) 76.2 x (D) 115.4 / 206g





Noodle Solution

Neuromeka's noodle solution utilizes the Indy7 collaborative robot, known for its exceptional safety standards in Korea, to automate the entire noodle cooking process. By preventing injuries that can arise from handling the hot noodle boiling pot and reducing the need for human intervention, it establishes a safe and efficient cooking environment.

We have optimized the workload for robots by implementing a gripper system capable of securely holding various cooking utensils and dishes. An automatic water replenishment system maintains a consistent water level in the noodle boiling pot. Furthermore, to prevent any decline in noodle quality resulting from unattended food, the system features an automatic discharge function for noodles left unattended for a specified period of time. This ensures our ability to consistently provide customers with high-quality dishes.

Noodle solution installation sites

- C family restaurant 1 (Gwnagjin-gu, Seoul)
- C family restaurant 2 (Mapo-gu, Seoul)
- C family restaurant 3 (Gyeyang-gu, Incheon Metro city)
- C family restaurant 4 (Yeonsu-gu, Incheon)



Noodle solution menu options

- Ramen
- Pho
- Udon
- Pad Thai
- Pasta

*Agreement and applicability for all other cooking or boiling recipes

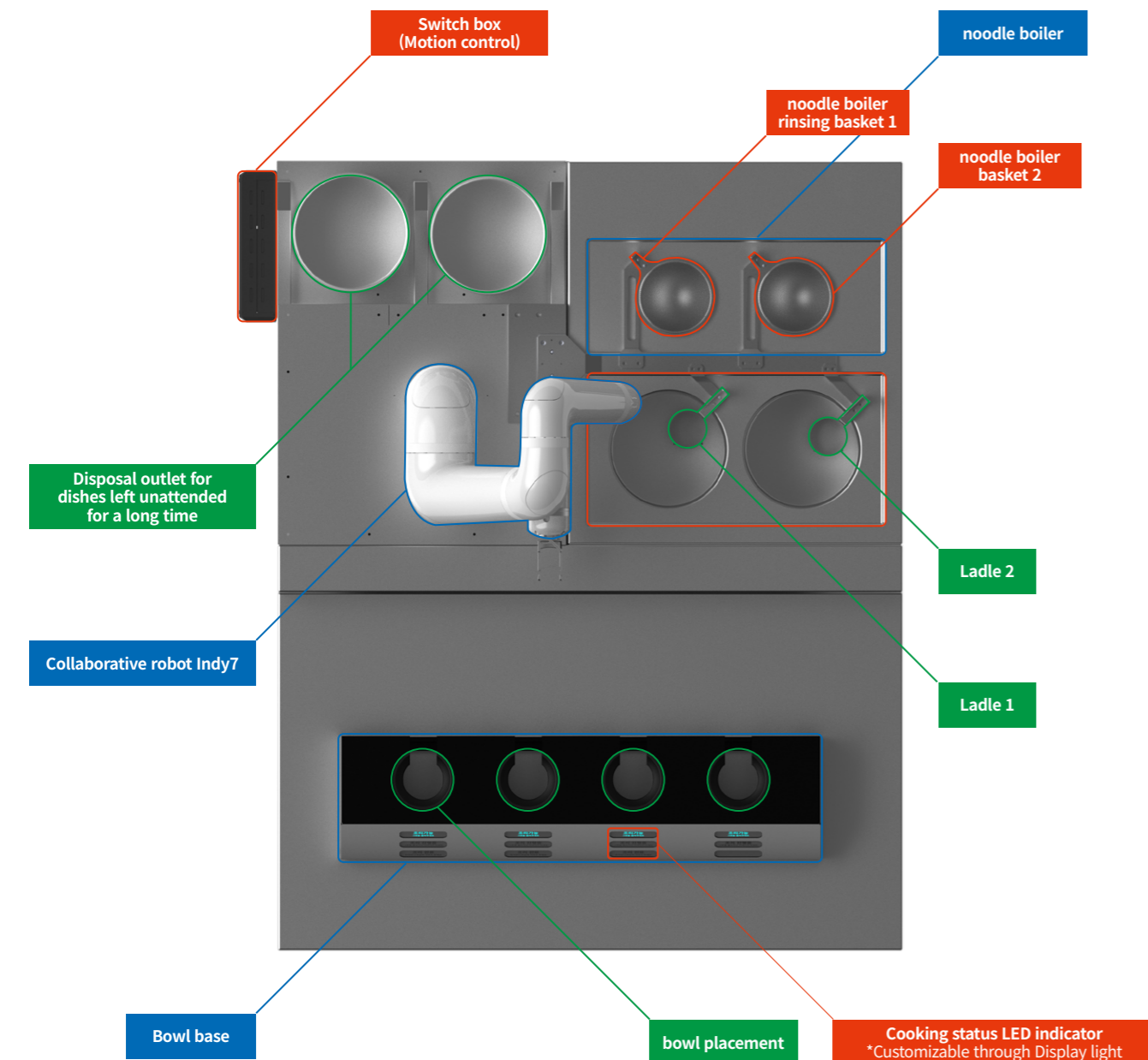
Noodle Solution Feature

- A. "Improved cooking efficiency through automation of repetitive tasks."
- B. "Enable unmanned store operation through automation of the entire process."
- C. "Maintain product quality through an automatic discharge system for unused items."

Noodle Solution specifications

Power and equipment specifications

Size	1,330*1,430*900 (with robot:1,800)
Weight	120kg
Average Cook Time	Approx. 90 sec/1 bowl
Input power	220V / 60Hz
Consumption power	700W (Robot). 5kW (boiler)



Noodle solution component specifications

Collaborative Robot Indy7

Payload	7kg
Range of joint motion	1,2,3,4,5 : ±175deg 6 : ±215deg
maximum joint speed	1,2,3 : 150deg/s 4,5,6 : 180deg/s
maximum working radius	1.3m
Repeatability	100µm
Weight	28kg



Electric Gripper (MPLM 1630)

Gripping Force	63N
Stroke	2 x 15mm
Power Supply	24Vdc
Jw Closing Time	0.37s
Nominal Current	0.3A
Weight	263g



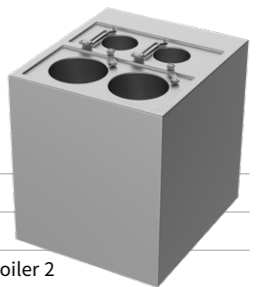
Dish rack (in-house production)

Capacity	4 bowls
Size (4 bowls)	1000*353*241.5
Size (3 bowls)	780*353*241.5
Options	LED type or Display type



Noodle boiler (in-house production)

Size	705*800*840
Power Consumption	220V / 5kW
Composition	meat broth 2, Noodle boiler 2
function	water can be automatically replenished



Noodle boiler, rinsing basket

Size	φ 150*208*254
Compatibility	Universal basket usable by both robots and humans
Gripper	MPLM1630 (24Vdc, IP54)



Ladle (in-house production)

Size	φ 80*155*350 / 250ml
Compatibility	Universal basket usable by both robots and humans
Gripper	MPLM1630 (24Vdc, IP54)



Switch box (Neuromeka In-house production)

Format	Power, Direct teaching, Temporary stop, Gripper opening
Fuction	Noodle solution control



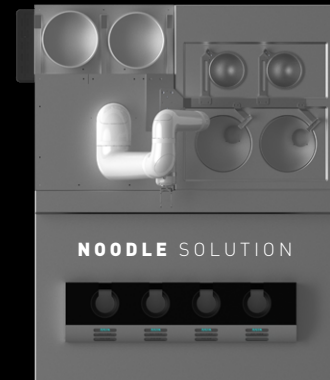
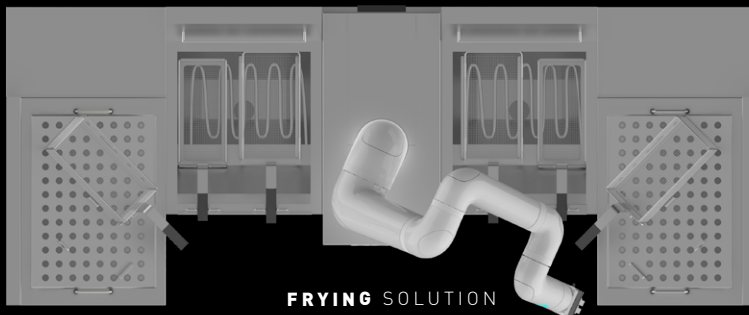
CCTV (ipTIME C200)

Pixel/Resolution	200M fixel / Full HD 100P (1920 x 1080)
Feature	Wireless communication, night mode, Android app management, two-way voice
Size/Weight	(W) 76.2 x (H) 76.2 x (D) 115.4 / 206g





Robot as a Tool
Robot as a Service
Robots for Every Workplace



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