The Royal Kitchen of Incheon

2026 Rescue Maze SuperTeam Rules

Scenario

Incheon, South Korea. The city is famous across the country for its royal rice — for centuries, only the finest grains from these fields were worthy of the Joseon king's table. Today the city is hosting a grand Hansik celebration: a live recreation of the royal kitchen, the Sura-gan, where a master chef will prepare legendary traditional dishes for the crowd.

The kitchen is buzzing and orders are flying in from every direction. Two robot assistants are on duty. Robot A is the waiter robot: it works the restaurant floor, taking orders from the guests and relaying them to the kitchen. Robot B is the chef robot: it works in the kitchen, gathering exactly the ingredients each dish needs, cooking it, and keeping the kitchen restocked. Neither robot can do this alone: without communication the wrong ingredients are gathered and the royal feast never reaches the table. The audience is watching. The chef is waiting. Can the two robots work together and deliver the perfect royal meal in time?

Description

Robot A is the waiter robot. It works in the Restaurant Area, identifying guest orders by reading the three order targets placed around the area. Robot A may hold only one order at a time, and the first order target it takes an order from is its active order. Each order target has a SUM value that identifies which of the five dishes was ordered, and therefore which ingredients the dish needs. Robot A passes that order to Robot B at a handoff point. Robot B is the chef robot. It works in the Kitchen Area, travelling to each required ingredient target and collecting exactly the ingredients the dish needs. Once the ingredients are gathered and the dish is prepared, Robot B hands the finished meal back to Robot A, who delivers it to the waiting guests. Neither robot may leave its own area. There are two kinds of cognitive target: order targets in the Restaurant Area (each showing a SUM value, one per guest order) and ingredient targets in the Kitchen Area (each a single colour, one per ingredient). Robot B also keeps the kitchen stocked: at any time it can push an ingredient box to its delivery point to bring in fresh supplies for bonus points.

Technical Details

Field

- The SuperTeam Challenge uses a dedicated field. It contains no ramps, speed bumps, stairs or Dangerous Zone.
- The field is exactly as shown in these rules and does not change between runs, with two exceptions: (1) the order targets (their SUM values and positions) may differ, and (2) the left-to-right order of the ingredient targets may differ (for example, instead of black, blue, green, red, yellow they might be arranged yellow, green, red, blue, black).
- Several standard tiles take on special roles in this challenge: the **silver checkpoint tiles** are start tiles, the **blue and black tiles** are handoff points (for passing an order or a finished dish), and the **red tiles** are exit bonus tiles.
- The field is divided into a Restaurant Area (where Robot A, the waiter robot, works) and a Kitchen Area (where Robot B, the chef robot, works), as shown on the field map below.
- Each robot must stay within its own area for the entire run: Robot A in the Restaurant Area and Robot B in the Kitchen Area. If a robot crosses into the other area it is a Lack of Progress (and, as with any Lack of Progress, both robots are returned to their silver start tiles).
- **Start tiles.** There are two silver checkpoint tiles used as start tiles. Robot A starts on the silver tile in the Restaurant Area; Robot B starts on the silver tile in the Kitchen Area.

Restaurant Area (Robot A zone)

- The Restaurant Area is the part of the field where Robot A, the waiter robot, operates.
- Order targets are placed in the Restaurant Area to represent guest orders. There are exactly three order targets, each showing a random SUM value (the three may be the same or different). Robot A may hold only one order at a time. An order is taken only if Robot A stops at the target for at least 5 seconds and then blinks; stopping without blinking does not take an order, and merely driving past a target does not count. The first target where Robot A does this becomes its active order. The blink count must match the order's SUM value (SUM −2 = 1 blink, −1 = 2, 0 = 3, 1 = 4, 2 = 5 blinks), each blink being 500 ms ON / 500 ms OFF. No rescue kit is placed when an order is taken.
- Robot A reads the SUM value of the order target. The SUM value is determined as in the standard Rescue Maze cognitive-target rules, and it identifies which one of the five dishes was ordered, and therefore exactly which ingredients must be collected for that dish.
- **Example:** an order target with a SUM value of 0 is the Bibimbap order, so Robot B must collect the red, yellow and green ingredients. How Robot A conveys this to Robot B during the order handoff is up to the team.
- The five possible SUM values are −2, −1, 0, 1 and 2, each corresponding to exactly one of the five dishes. The five ingredient colours are red, yellow, green, blue and black, matching the five ingredient targets in the Kitchen Area.

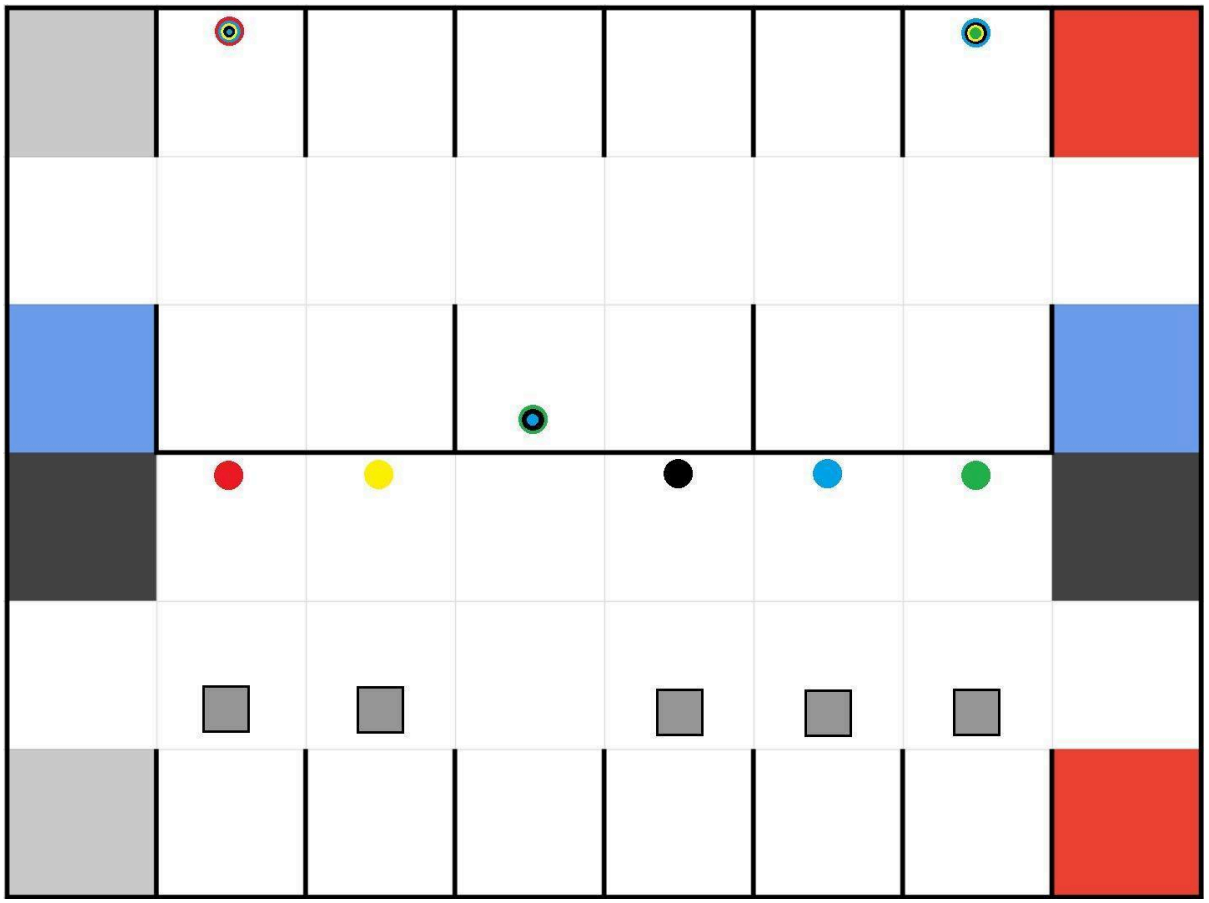
Kitchen Area (Robot B zone)

- The Kitchen Area is the part of the field where Robot B, the chef robot, operates.
- There are exactly **five ingredient targets**, each a single colour: red, yellow, green, blue and black.
- Robot B collects an ingredient by stopping completely at its ingredient target for at least 3 seconds while blinking its identification LED (500 ms ON / 500 ms OFF) continuously for the whole 3 seconds. (This continuous blinking is different from order pickup, where Robot A blinks a specific number of times.)
- **Ingredient boxes:** the Kitchen Area always contains exactly five ingredient boxes (shown in grey on the map), one on a tile next to each ingredient target. The tile directly below each box is its delivery point. At any time, Robot B may push a box onto its delivery point to bring in a fresh supply of that ingredient (see Resupply).

Handoff Tiles

- At a handoff the robots pass either the **order** (Robot A → Robot B) or the **finished dish** (Robot B → Robot A). The handoff tiles are the blue tiles (on the Restaurant side) and the black tiles (on the Kitchen side).
- A handoff is valid only when the two robots are on two handoff tiles that share an edge: Robot A on a blue tile and Robot B on the adjacent black tile. Any blue tile that is edge-adjacent to a black tile forms a valid handoff pair.
- Throughout the handoff each robot must stay on its own tile; it may move around inside the tile.

Field Map



Silver = start tiles (Robot A in the Restaurant Area, Robot B in the Kitchen Area). Coloured marks = ingredient targets. Grey squares = ingredient boxes (Robot B pushes them onto the delivery tile directly below). Blue and black tiles = handoff points. Red tiles = exit bonus tiles. The order targets in the Restaurant Area show the order's SUM value.

Ingredients

Each ingredient colour maps to one ingredient target (with one ingredient box on a neighbouring tile):

Colour	Ingredient	Ingredient box
Red	Gochujang (red chili paste)	1 grey ingredient box, on a neighbouring tile (push to resupply)
Yellow	Egg	1 grey ingredient box, on a neighbouring tile (push to resupply)
Green	Namul (seasoned vegetables)	1 grey ingredient box, on a neighbouring tile (push to resupply)
Blue	Broth / seafood	1 grey ingredient box, on a neighbouring tile (push to resupply)
Black	Gim (dried seaweed)	1 grey ingredient box, on a neighbouring tile (push to resupply)

Menu and Recipe System

The SuperTeam Challenge features five traditional Korean dishes. The SUM value of an order target determines which dish was ordered and, therefore, which ingredients Robot B must collect. Each SUM value (−2, −1, 0, 1, 2) maps to exactly one dish.

SUM	Dish	Korean name	Required ingredient colours (single-colour ingredient targets)
−2	**Tteokbokki**	떡볶이	**Red + Yellow + Black**
−1	**Sujebi**	수제비	**Yellow + Green + Blue**
0	**Bibimbap**	비빔밥	**Red + Yellow + Green**
1	**Doenjang jjigae**	된장찌개	**Green + Blue + Black**
2	**Galbitang**	갈비탕	**Red + Blue + Black**

- Each valid order target in the Restaurant Area represents one guest order. Its SUM value identifies the dish and therefore the required ingredients.
- Robot A's active order is the first order target it takes an order from (see Restaurant Area); this is the order it must communicate to Robot B.
- Robot A holds an order from the moment it is picked up until the order handoff. After a successful order handoff Robot A no longer holds that order and may pick up the next target; the finished dish is still delivered to that order's own target.
- Robot B can prepare **only one dish at a time**. For each dish it collects exactly the ingredients (the required ingredient colours) that the dish requires, then prepares it.
- An **order handoff** (passing an order) and a **dish handoff** (passing a finished dish) are always separate events and may never happen at the same time.
- **Example:** for a Bibimbap order (SUM 0; red, yellow, green), Robot B visits the red, yellow and green ingredient targets, prepares the dish, and only then hands it back to Robot A.

Gameplay

Game Start

- Team captains indicate to the referee which physical robot is Robot A and which is Robot B.
- Robot A is placed on the silver start tile in the Restaurant Area; Robot B is placed on the silver start tile in the Kitchen Area. Each robot may face any direction.
- Both team captains press the start button on their robot at the same time.
- Each team has a maximum of 8 minutes for the round, including calibration time.

Order of Play

For each of the three orders, the robots carry out Steps 1–6 below. The two robots may work on different orders at the same time. For example, Robot A can pick up the next order while Robot B is still cooking the previous one. After all orders are done, both robots exit (see End of run).

- Step 1. Order pickup (Robot A): Robot A drives through the Restaurant Area and takes its active order at the first order target where it stops for at least 5 seconds and blinks (see Restaurant Area). The blink count must match the order's SUM value: a correct count scores the full order-pickup points, a wrong count scores reduced points (see Scoring). This blink count is how Robot A tells Robot B which dish to cook, so it should match the order. No rescue kit is placed when taking an order, and Robot A holds only one order at a time.
    - Step 2. Order handoff (Robot A + Robot B): Robot A (on a blue tile) and Robot B (on the adjacent black tile) meet on two edge-adjacent handoff tiles and both stay on their own tile for at least 5 seconds. During those 5 seconds they may move within their own tile to exchange the order; if either robot leaves its tile before the 5 seconds are up, the order handoff fails. Robot B must prepare the order that Robot A picked up. No dish is passed during an order handoff.
    - Step 3. Collect ingredients (Robot B): once Robot B has received the order (a successful order handoff), it collects each required ingredient by stopping at that ingredient target for at least 3 seconds while blinking its identification LED (500 ms ON / 500 ms OFF) the whole time. A station counts only when Robot B stops there for the full 3 seconds while blinking; driving past does nothing. A required ingredient scores +10 (each one once); stopping at a target the dish does not need scores −10. Ingredient collection before a successful order handoff does not count (see Scoring).
    - Step 4. Prepare the dish (Robot B): after collecting at least one of the required ingredients, Robot B prepares the dish by remaining completely stationary for at least 10 seconds in the Kitchen Area. If no required ingredient was collected, no dish points are scored.
    - Step 5. Dish handoff (Robot B + Robot A): once the dish is prepared, both robots meet on two edge-adjacent handoff tiles (Robot A on a blue tile, Robot B on the adjacent black tile) and both stay on their own tile for at least 5 seconds. They may move within their own tile during those 5 seconds; if either robot leaves its tile, the dish handoff fails. No information is exchanged during a dish handoff.
    - Step 6. Deliver the meal (Robot A): Robot A delivers a dish to that order's own order target (the one it took the order from): it stops there, blinks its identification

LED continuously for 3 seconds while stationary, and places one rescue kit within 15 cm of the target. The rescue kit represents the served meal. Because Robot B prepares only one dish at a time, there is no doubt which order a returned dish belongs to. Robot A may deliver as soon as it has taken the order (Step 1); a delivery does not require the order handoff or the dish handoff, so Robot B cannot block Robot A's deliveries.

- End of run (once, after the orders): each robot drives to the red tile in its own area and stops there for at least 5 seconds (see Exit Bonus).

Resupply (Ingredient Boxes)

- Keeping the kitchen stocked is a separate task for Robot B. At any time during the run, Robot B may push an ingredient box from its tile onto its delivery point (the tile directly below the box) to order a fresh supply of that ingredient.
- A push is successful when more than half of the box ends up on its delivery tile. Each successful push scores +10 (see Scoring).
- There are always five ingredient boxes, one next to each ingredient target. Each box can be scored only once; pushing a box that has already reached its delivery point scores nothing more.
- Pushing ingredient boxes is optional and independent of the order steps: the team may push boxes at any convenient moment, or finish the orders without pushing any box.

Exit Bonus

- The exit bonus is awarded once, at the end of the run. Each robot earns its own share for being stopped on the red tile in its own area for at least 5 seconds (per robot and independent, so one robot can earn its share even if the other never reaches its red tile). In addition, +5 is awarded for each dish that was prepared and handed over and +5 for each dish delivered, counted at most once per order and for at most three dishes (see Scoring).

Scoring

Points are scored by the SuperTeam as a whole (the two teams share one combined score). Each scored action is judged on its own: a missed or failed step only forfeits that step's own points and never cancels points already earned for other actions. This way a strong robot keeps scoring even if its partner robot does little or nothing. Each action is scored only once per opportunity: order-pipeline actions at most once per order, resupply once per ingredient box, and the exit bonus once at the end of the run.

Scored action	Robot(s)	Points
Order pickup: stop 5 s, then blink the order count (500 ms ON / 500 ms OFF)	Robot A	**+30 correct count / +15 wrong count**
Order handoff: both robots 5 s on adjacent blue–black tiles (only while Robot A is holding an order)	Robot A + B	**+30**
Correct ingredient collected	Robot B	**+10 per required ingredient (once each)**
Stop at a wrong ingredient target	Robot B	**−10 each (per-order subtotal, not below 0)**
Dish prepared and handed over (dish handoff, 5 s on adjacent tiles)	Robot B (+ A)	**+30 if exactly the required set / +10 if at least one collected / 0 if none**
Dish delivered + rescue kit placed at the target	Robot A	**+45 (30 + 15), once per target**
Resupply: ingredient box pushed to its delivery point	Robot B	**+10 each (5 boxes)**
Exit: robot stopped 5 s on its own red tile	Each robot	**+15 per robot (once)**
Exit: per dish prepared & handed over / per delivered dish	—	**+5 / +5 each (max 3 dishes)**
Lack of Progress	—	**−10 each**

- Each of the three order targets is a single order and may be served only once. Robot B prepares one dish at a time, so a returned dish is always the order it was preparing; Robot A delivers it to that order's own target. Delivering to any other target does not score and does not mark a target as served. A target served with the wrong dish still counts as served (with partial credit) and cannot be served again.
- Order-handoff points are awarded only while Robot A is holding an order that it has picked up but not yet handed over.
- "Exactly the required ingredients" means the dish's required set with no missing and no extra ingredients; any extra ingredient target also counts as a wrong target. Ingredient points are tallied per order and the per-order ingredient subtotal cannot go below 0.
- Partial credit is intentional: a wrong blink count still scores +15 (the order was at least located) and a wrong dish still scores +10 at the dish handoff (some food was still prepared and delivered).

- Robot A's order pickup and delivery depend only on Robot A: a delivery needs only that Robot A took the order (Step 1), not the order handoff or the dish handoff, so Robot B cannot block them. Robot B's ingredient and dish points count only after a successful order handoff for that order.

Maximum score: 605 points. This is 495 for the three orders (3 × 165), 60 for the exit bonus (15 per robot, +5 per dish prepared and handed over, +5 per dish delivered), and 50 for resupply (5 ingredient boxes × 10).

Game End

The game ends when:

- The 8 minutes of allowed game time expires.
- One team captain calls the end of the game.
- All three orders have been delivered and both robots have stopped.

Tie-break: if two SuperTeams finish on the same score, the higher rank goes to the team that used less time; if they are still tied, to the team with more dishes correctly prepared and delivered.

Lack of Progress

A Lack of Progress occurs when:

- One team captain declares a Lack of Progress.
- The referee declares a Lack of Progress.
- A robot damages the field.
- A robot enters the other robot's area: Robot A entering the Kitchen Area, or Robot B entering the Restaurant Area.
- A team member touches the field or their robot without permission from the referee.