

# Saros Z70 Robotic Arm Operation Guide -Detailed version

## What Can the Robotic Arm Do?

- Remote Control Pick Up
- Sort Items
- Follow-up Cleaning
- Switch Between Robot Camera and Robotic Arm Camera during Remote Viewing

## First-Time Setup: Enable the Robotic Arm

You need to enable the robotic arm function before first use.

① ③

**Emergency Stop Button**

**Power Button**

When the robotic arm is inside its compartment: •

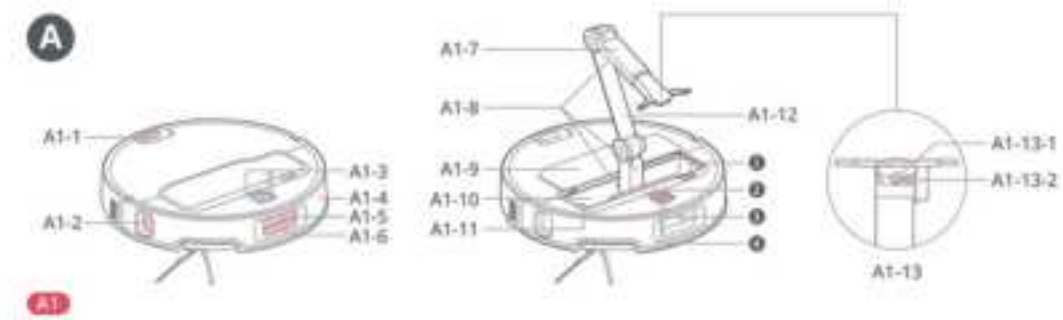
Press and hold both the Emergency Stop Button and the Power Button to enable or disable the robotic arm function.

**(Note: This operation only enables or disables the robotic arm function. It does not summon the robotic arm out of the compartment. To deploy the robotic arm, please use the app)**

When the robotic arm is outside of its compartment: •

Press the Emergency Stop Button to immediately stop the robotic arm. •

Press and hold both the Emergency Stop Button and the Power Button to reset the robotic arm. **(The robotic arm will return to its compartment and the Electric Hatch will close.)** Please refer to the attached video for guidance: : <https://youtu.be/tX6-pCwVwNs>



## What Will the Robot Pick Up?

For safety reasons, till now, automatic grabbing can only reecognize and pick up the following types of items.



## Paper Balls

It is recommended to use A4 paper crumpled into a small ball, preferably tightly packed, or multiple tissues crumpled together into a ball.

For tissues on the ground, it need to have a certain height for easier pickup and should not be completely flat on the ground.



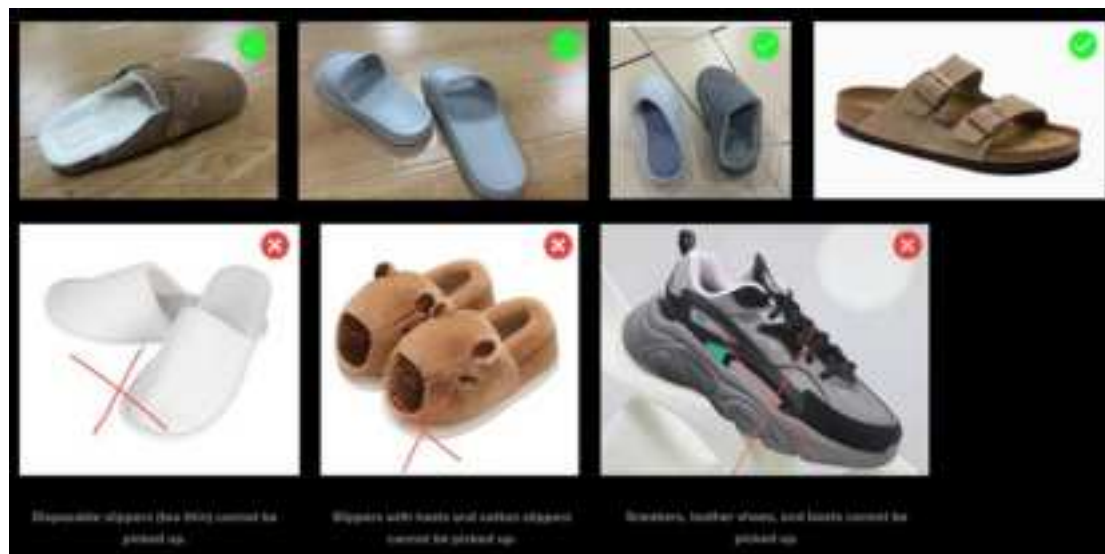
## Fabrics

Fabrics: including socks, small towels, gloves, etc. Avoid laying socks flat on the floor; try to roll them into a compact shape.



## Shoes

Please use household slippers or Birkenstock-style shoes; do not use sneakers, boots, or similar footwear. Don't pick up shoes on carpets or rugs.




Please avoid putting items closely against the wall. For slippers, ensure the opening faces outward and avoid placing them against the wall.



## First Function: Sort Items

### Add Storage Zones

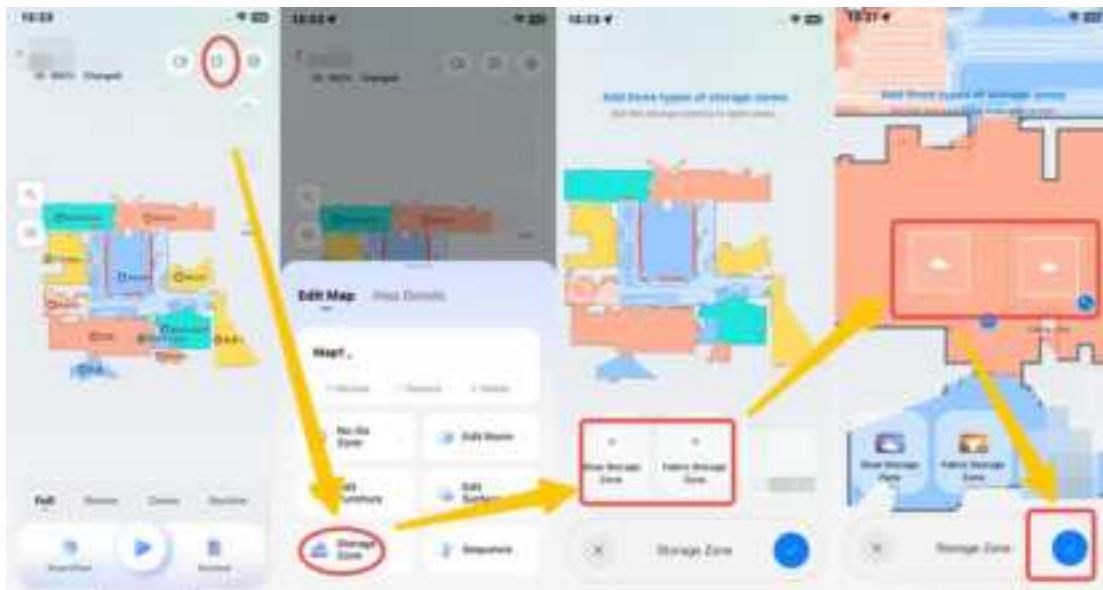
To sort items, you must first add Storage Zones on the map.



On the home page, tap the **Edit** button, then add both a **Shoe Storage Zone** and a **Roborock Storage Box** . Adjust their size and position as needed, and then tap **Save**.

**Notes:**

- Once a Storage Zone category is added, its corresponding "Add" button will disappear.
- You must add both a Shoe Storage Zone and a **Roborock Storage Box** before saving. If you tap the **X** in the bottom-left corner before saving, all settings will be cleared.
- After being added, the Shoe Storage Zone and **Roborock Storage Box** cannot be deleted or rotated.
- For the **Roborock Storage Box Zone**, when sorting items, the robot will first bring the item to the **Roborock Storage Box Zone** and automatically check whether a physical storage box is present:
  - If a storage box is found, the item will be placed inside the box, and subsequent sorting actions during the current cleaning session will continue using the box.
  - If no storage box is detected, the item will be placed directly on the floor. The robot will not search again for the box during this cleaning session but will recheck during the next cleaning.
- A physical storage box is included in the package. It is made of integrated cardboard and needs to be folded and assembled into a box. Please refer to the attached video for assembly instructions: <https://youtube.com/shorts/EqnP8aDcc88>.
- The physical storage box has QR codes around its sides, which the robot uses to locate it. Please ensure that the QR codes are not blocked or damaged.



## Automatic Sorting

You can organize items either by automatic sorting or manual sorting — both methods work, so just pick the one that suits you best!

To turn on automatic sorting, go to **Settings > Robotic Arm Setting > switch on Automatic Sorting**.

Once it's enabled, the robot will start sorting items automatically during its cleaning tasks.

You can watch the video tutorial here: <https://youtu.be/y6LrSgx3DUk>

### Automatic Sorting – Trigger Conditions & Process

Automatic Sorting is activated when you have added **Storage Zones** on the map and enabled **Automatic Sorting** in the app.

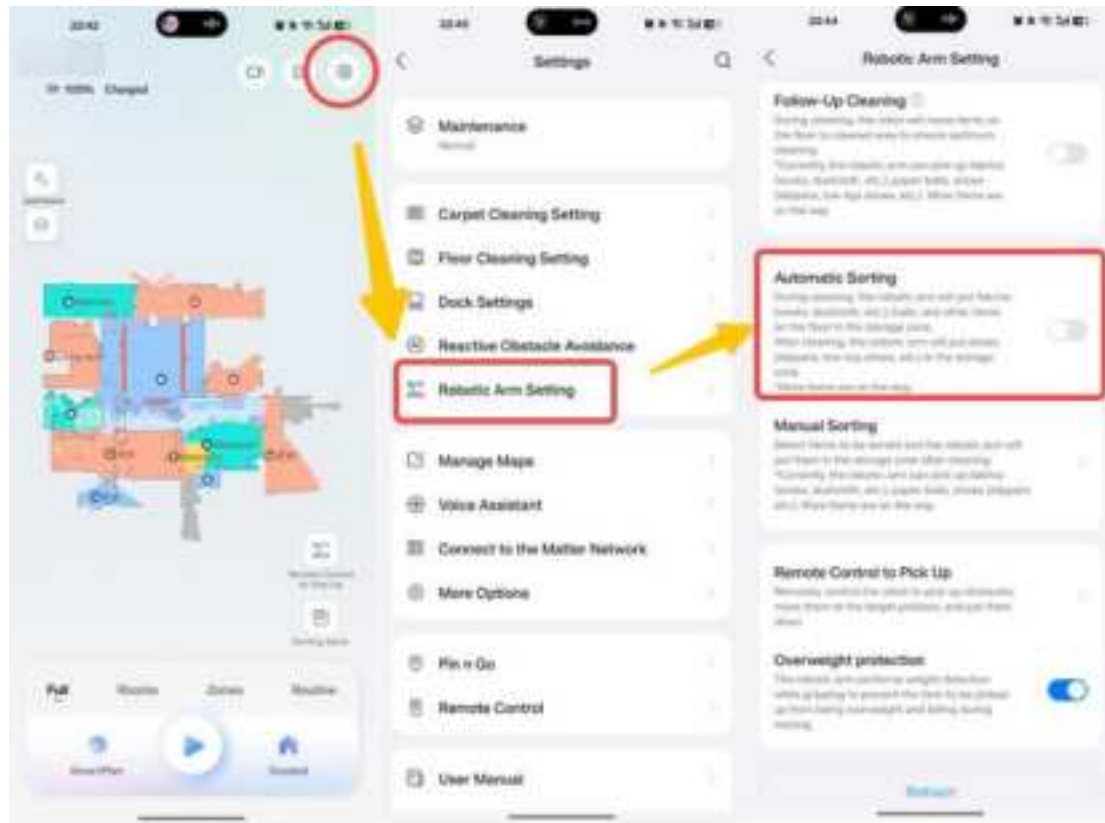
The Automatic Sorting feature includes two processes:

#### 1. Real-time Sorting During Cleaning:

While cleaning, if the robot detects clump-like items such as paper balls or fabrics, the robotic arm will automatically extend to pick up the item and place it into the **Storage Box**. After sorting, the robot will return to its original position and resume cleaning.

#### 2. Post-Cleaning Sorting:

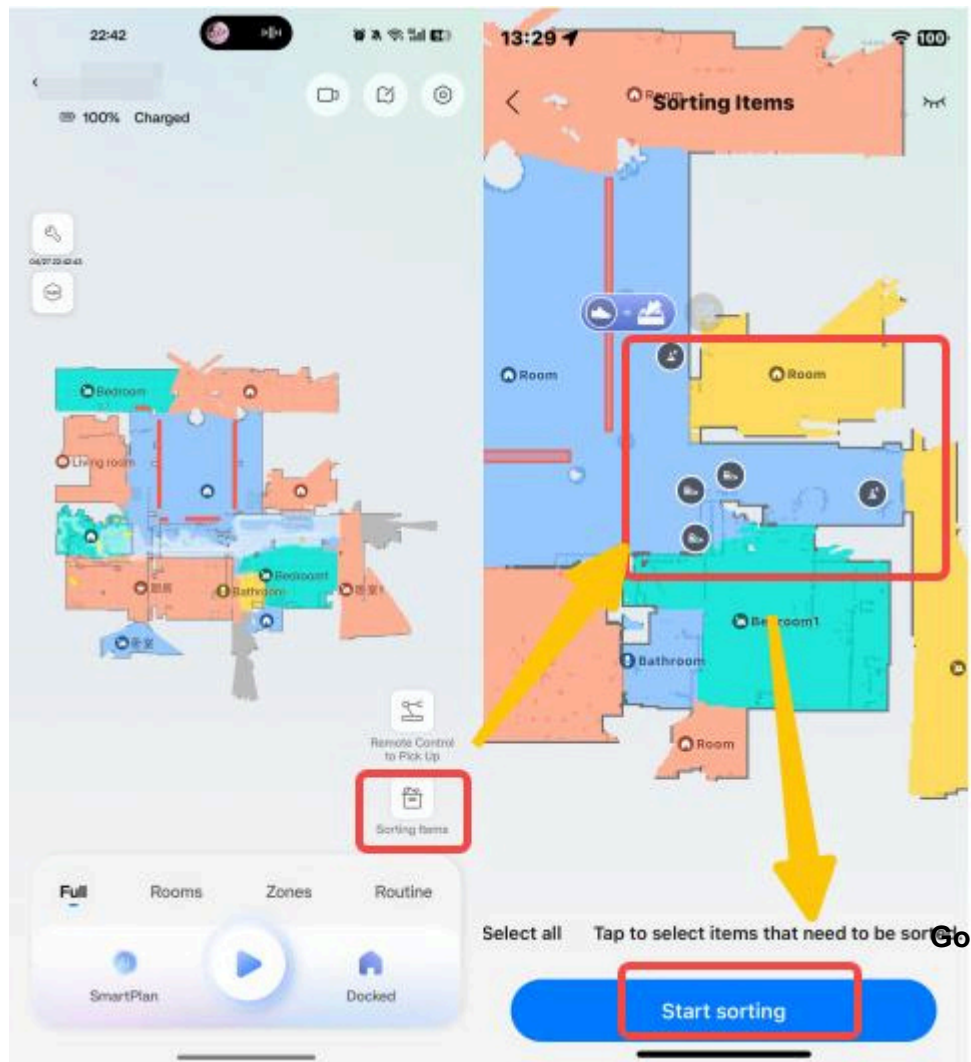
For obstacles like shoes, after completing the cleaning task, the robot will first return to the dock for self-cleaning. It will then leave the dock to place the shoes into the **Shoe Storage Zone**. Once sorting is complete, the robot will return to the dock again for drying.



## Manual Sorting

Turn off **Automatic Sorting** first. There are two ways to start **Manual Sorting**, and you can use either one: 1. Tap **Sorting Items** on the homepage. 2. Or go to **Settings > Robotic Arm Setting > Manual Sorting**. Select items icon and then tap **Start Sorting**. You can watch the video tutorial here: [https://youtu.be/CmH\\_TEONxVs](https://youtu.be/CmH_TEONxVs)

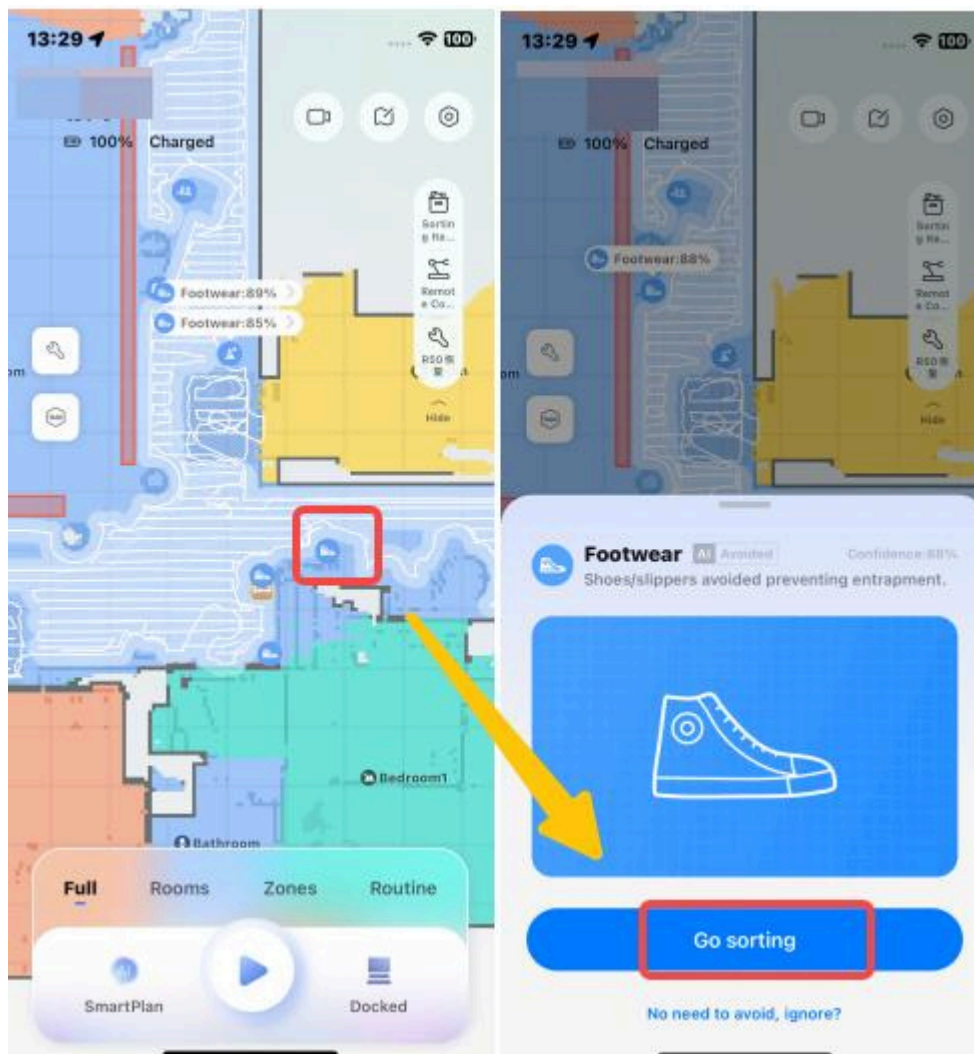




Alternatively, you can tap the obstacle icon directly on the map. You will see a **Sorting** option. Tap it to have the robot sort the selected item.

**Note: This method is only applicable for sorting a single item.**

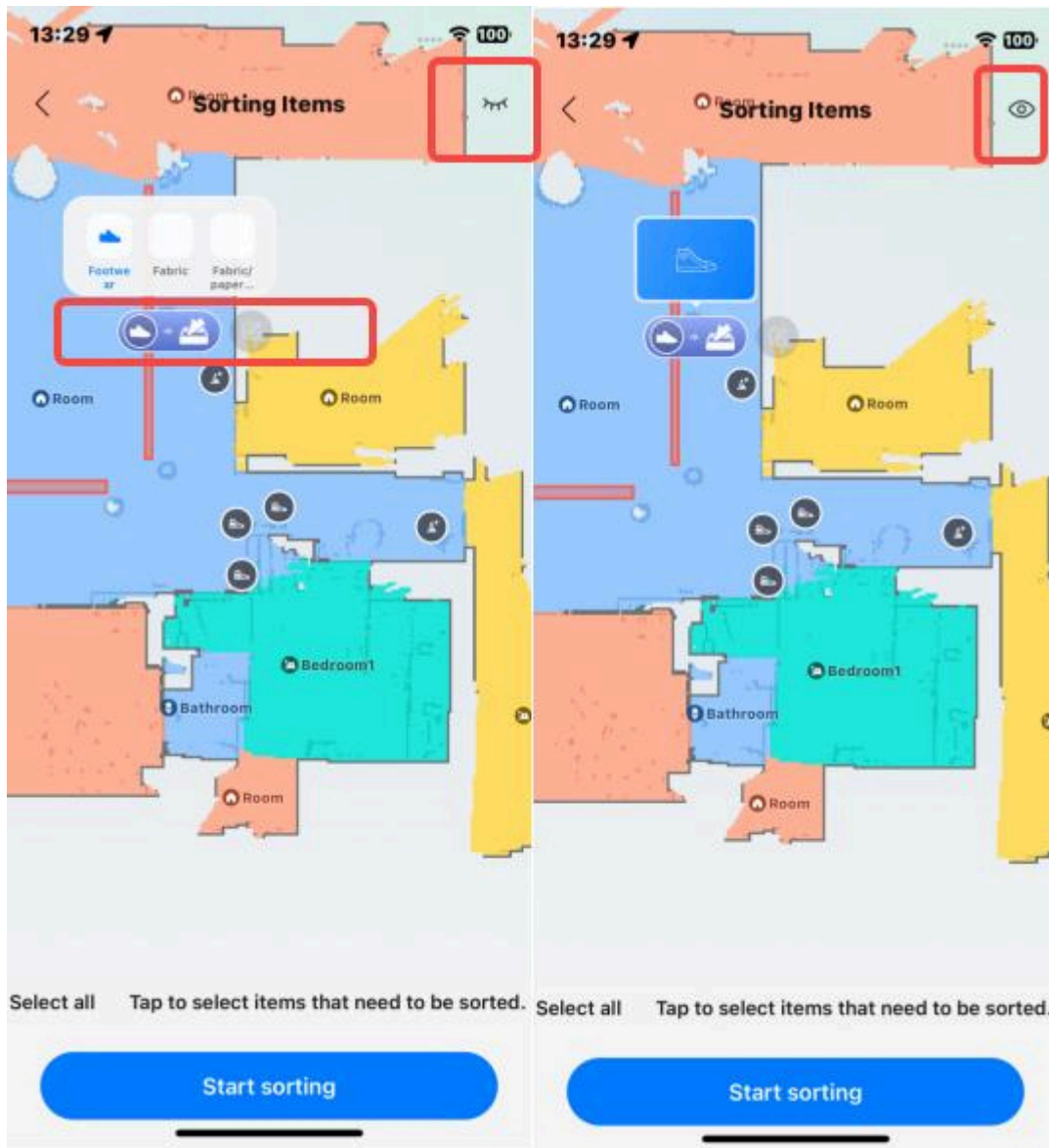




### Tips:

1. Using the **Sorting Items** button on the homepage allows you to select multiple items at once. However, if you tap an obstacle icon on the map, you can only sort that single item.
2. On the **Sorting Items** page, there's a 'see icon' in the top right corner to toggle item photos on or off. When selecting items, icons will also indicate whether the object will be sorted into the **Shoe Storage Zone** or the **Storage Box**.
3. On the map, if you tap on an object that is not a shoe, fabric, or paper-like item, the **Go Sorting** option will not appear.

Additionally, if a valid item (such as a shoe or fabric) is located too close to a wall or furniture, an exclamation mark icon will appear on the object to indicate that the location is not suitable for picking up, to help avoid accidental operation.



## Second Function: Remote Control to Pick Up

On the main map page, you will find the robotic arm icon. Tap it to enter the **Remote Viewing** page. Then, tap the **Remote Control to Pick Up** button at the bottom right to access the control interface.

*(Note: Users can also initiate a 2-way video call on this page, but here we mainly focus on explaining the Remote Control to Pick Up feature.)*



## Automatic pick up

There are two modes available: **Auto** and **Manual**. Please switch to the **Auto Automatic Pick Up**

The Automatic Pick Up process consists of two stages: **tab first**. and **Automatic Put Down**.

### Stage 1: Automatic Pick Up

1. Remotely control the robot to move until the item you want to pick up is within the blue zone.
2. Tap **Start Picking Up**. The robotic arm will automatically grip the item, as shown in images ① and ②.
3. If you tap the **Pause** button during this process, you will see two options: **Continue Picking Up** or **End Picking Up**, as shown in image ③.



### Stage 2: Automatic Put Down

After successfully picking up the item, remotely control the robot to move to an uncluttered area. Then tap **Put Down** to place the item.



## Manual pick up

On the main map page, tap the robotic arm icon to enter the **Remote Viewing** page. Then tap **Manual** to switch to the **Manual Pick Up** page.

In manual mode, there are two control methods: **Arm Motion** and **Joint**, which control different parts of the robotic arm.

- **Arm Motion** controls the **M5** joint and the **end effector**, making it simple to operate.
- **Joint** controls the **M3**, **M4**, and the **end effector**. (Refer to the diagram below for the location of each joint.)

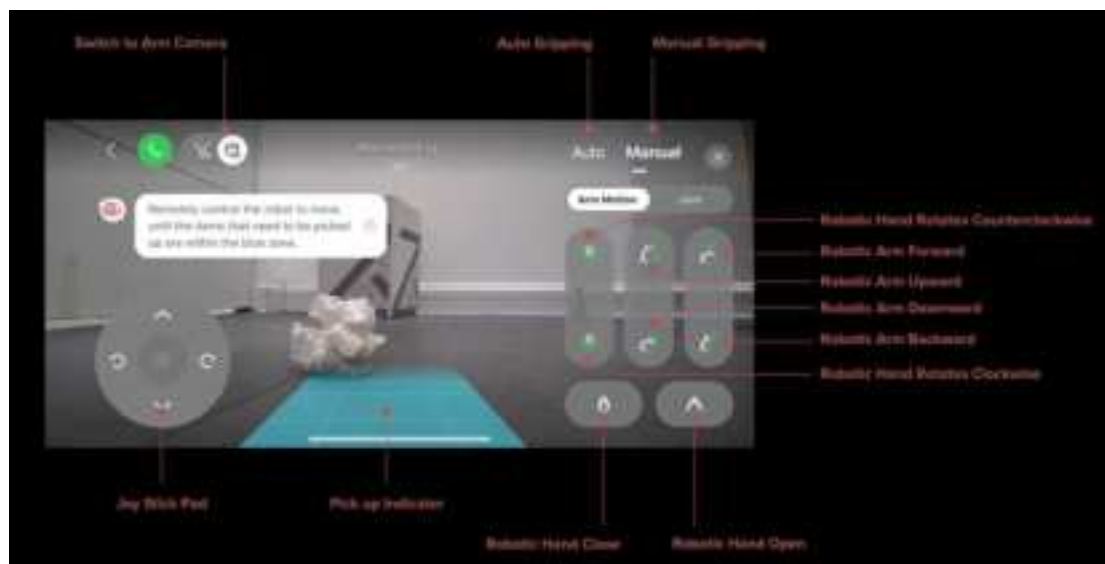
Regardless of whether you use **Arm Motion** or **Joint** mode, there are three control columns:

- The left column controls the direction of the end effector.
- The center column controls the vertical movement of the arm or joints.
- The right column controls the forward and backward movement of the arm or joints.

At the bottom, there are two buttons:

- The icon showing a closed claw represents **Pick Up**.
- The icon showing an open claw represents **Put Down**.





## Third Function: Switch Between Robot Camera and Robotic Arm Camera

In 'Remote Control to Pick Up page', tap the camera icons to switch between the robot's main camera and the robotic arm camera.

On the **Remote Control to Pick Up** page, you will see two icons:

- The left icon (robotic claw) represents the **Robotic Arm Camera**.
- The right icon represents the **Front Camera** of the robot.

Tap the corresponding icon to switch between different camera views.

Additionally, on the **Manual Pick Up** page, you can adjust the arm and joint positions to control and change the viewing angle of the Robotic Arm Camera.



## Forth Function: Follow-up Cleaning

Follow-Up Cleaning is fundamentally different from Item Sorting.

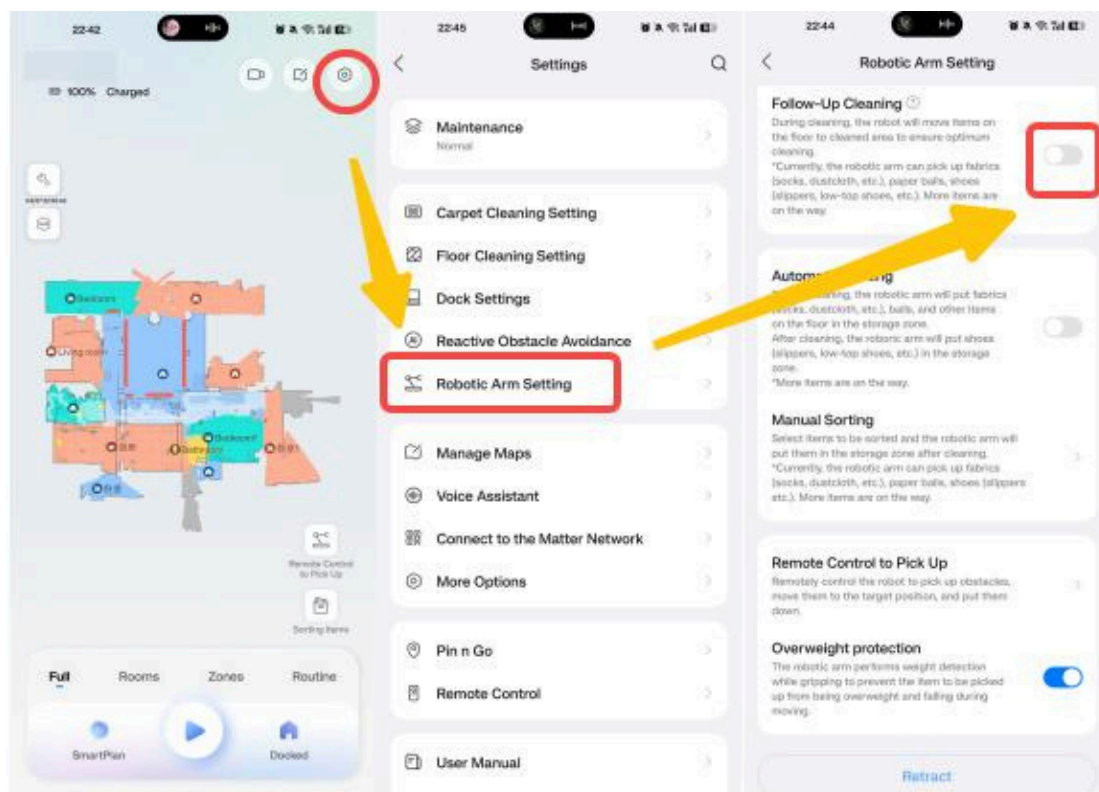
- **Item Sorting** means the robot moves objects to a designated storage area for organization.
- **Follow-Up Cleaning** means the robot temporarily moves items out of the way to clean the area underneath, helping to avoid missed spots.

With Follow-Up Cleaning enabled, the robot will automatically pick up and move certain items during cleaning without requiring manual operation.

***Currently, the robotic arm can pick up fabrics (such as socks and dust cloths), paper balls, and shoes (such as slippers and low-top shoes).***

To enable this feature, go to **Settings > Robotic Arm Settings** in the app.





## Follow-Up Cleaning and Automatic Sorting – Trigger Conditions & Process

1. Set up Storage Zone
2. Activate Follow-Up Cleaning & Automatic Sorting in settings
3. Start to clean. The robot will identify and locate recognizable objects that can be picked up.
4. Clean and organize. Identified socks, crumpled tissues, and similar items will be placed in the designated storage area during cleaning.
5. After cleaning all areas, follow-up-cleaning shoes (move all slippers aside first, then clean the original spot).
6. After completing follow-up cleaning, the robot returns to the dock for emptying and mop washing, then sorts the shoes into the shoe storage area.

## In What Cases Will the Robot Skip Picking Up?

1. The robot cannot detect or pick up clumps or fabric items on carpets.
2. Obstacles already located in the storage area will not be picked up.



3. If an obstacle is close to a wall, in a low-clearance space (under 50cm), or near other obstacles, the robot will abandon the pick-up to avoid collisions.
4. If the storage area is near a cliff or inside a low-clearance space, the robot will place the obstacle next to the storage area.
5. If the robot needs to cross a tall threshold after picking up an item, it will place the obstacle near the threshold instead.
6. If there are obstacles around the robot during pick-up, preventing the robotic arm from unfolding, the robot will abandon the pick-up.
7. The robot typically picks up items weighing **less than 300g**. For overweight items, it will trigger overweight protection and abandon the pickup.
8. Avoid Setting the Sorting Area Too Small

Please set the Storage Zone larger ( better larger than 1m \* 1m). Otherwise, shoes might be stacked.

