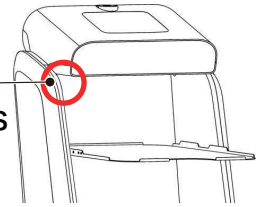


Maintenance Guide

The Maintenance Guide (this guide) describes how to take care of two robot models (Keenbot / Keenbot Laser).

The robot model is indicated in the "Model" information on a sticker located under the expression display.

For Keenbot: T5
For Keenbot Laser: T5-LS



1. Daily Precautions

Turn off the machine before any maintenance work.

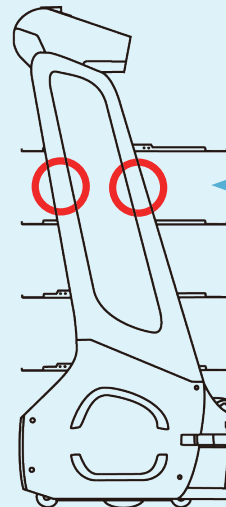
* Before wiping off any dirt on the machine, be sure to pull out the charger from the outlet and remove the charging plug of the charger from the machine.

① Moving the machine when the power is off

Push the handles with both hands to move it.

* Be careful about the following points when moving the machine:

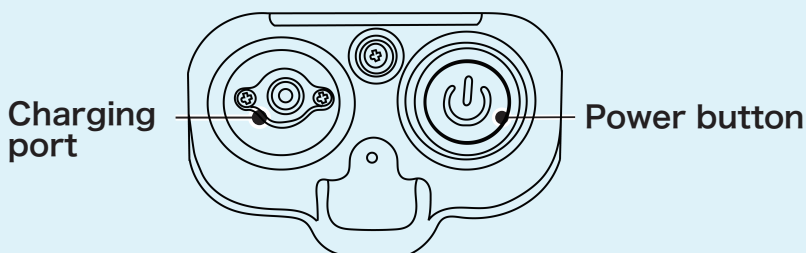
- Do not push the machine with excessive force.
- Do not lift it by holding the tray, the part beside the LiDAR sensor, or the expression display.



Hold and push this part of the machine to move it.

② Storing the machine

Make sure to turn the machine off and charge the battery after use.



- When the machine is not in use, turn it off and store it.
- Store the machine in a location where it will not block fire doors, stairs, or firefighting equipment.
- Always store in a dry indoor location free of humidity.
- When storing the machine, fully charge it once every two months. If the machine is left without a charge for more than two months, the battery will be completely discharged and the machine will not be usable.

2. Taking Care of the Machine (Sensors, Trays, Displays, Exterior of the Machine)

- 1 Clean the LiDAR sensor, the 3D camera, the top camera, the touch display and the expression display every day with a dry microfiber cloth.

* Microfiber cloth is not included.

Taking care of the exterior of the machine

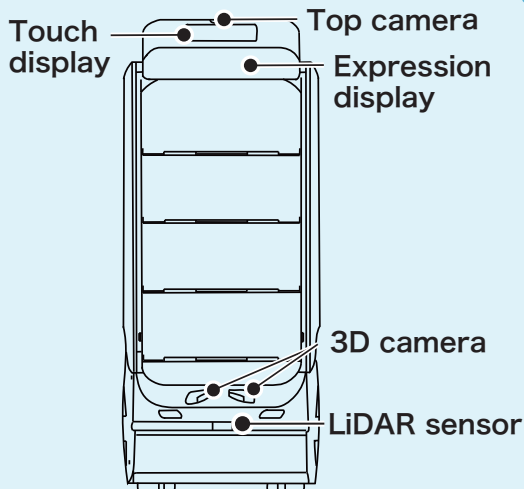
- ① Clean any dirt with a soft cloth that has been moistened with water and wrung out tightly.
- ② Wipe off any remaining water with a dry cloth and ensure it is completely dry.

When disinfecting the exterior of the machine

Wipe the machine with a cloth that contains disinfecting ethanol. Avoid spraying the machine with any liquid.

If the machine is very dirty

Wipe off the dirt with a cloth soaked in neutral detergent.



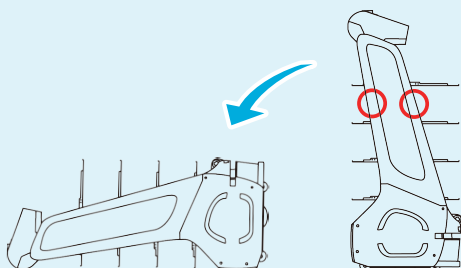
- 2 Wipe off any remaining water with a dry cloth and dry it well.

3. Taking Care of the Bottom of the Machine and its Wheels

Regularly inspect and clean the bottom of the machine every month. If it is extremely dirty, lay the machine on its side on a soft floor and wipe it with a cloth soaked in neutral detergent.

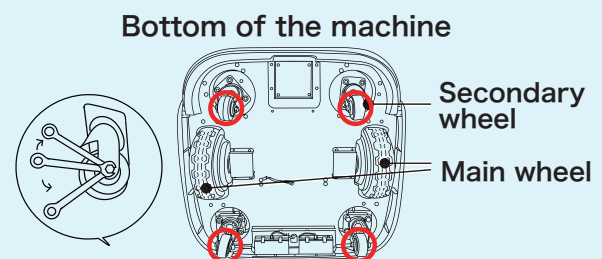
- For safety reasons, be sure to proceed with two or more people, and clean the secondary wheels as necessary.

- 1 Hold the handles and lay the machine on its side on a soft floor.



* Remove hair and dust caught in the wheels, and clean the wheels by wiping them with a damp cloth. Proceed to step 2 if any hair or dust cannot be removed.

- 2 Use a hex wrench (10 mm) to remove the screws and bolts from the secondary wheels and wipe off any dirt.



* Remove any dust with a resin spatula until you can see the groove on the wheel.
* Be careful not to lose the screws or bolts when removing them.

- 3 Attach the wheels with the screws and bolts previously removed.

* Tighten the screws sufficiently. Confirm that the secondary wheels are attached correctly by rotating them.

4. Taking Care of the Ceiling Tags

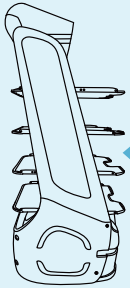
Keenbot

Keenbot Laser

Ceiling tag

② Check that there are no obstacles around and that there is no deterioration or deformation.

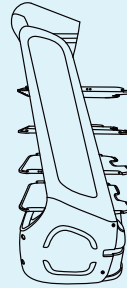
① Make sure that the machine is directly under the ceiling tag (predetermined position).



Ceiling tag

② Check that there are no obstacles around and that there is no deterioration or deformation.

① Make sure that the machine is under the center of 3 ceiling tags (predetermined position).

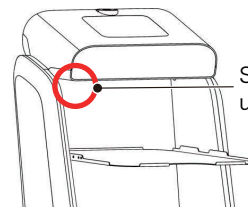


- Regularly check the area around the ceiling tags for objects that may hinder the ceiling tag recognition by the machine (hanging lanterns, ornaments, light sources, etc.). Please arrange the environment if necessary.
- When removing a ceiling tag attached to the ceiling, slowly peel it off. If you forcibly remove it, the paint or coating on the ceiling may come off.

Contacting Customer Support

If a problem cannot be remedied, contact customer support.

* The Robot ID and the Model printed on a sticker located under the expression display may be required when inquiring with customer support.



Sticker with Robot ID written under barcode.