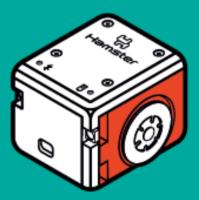
e-book

## Hamster Unboxing

Written by ConceptOn









#### **How to Use**

This manual is designed for the educational utilization of the Hamster robot.

- Please use this manual as on-screen instructions when teaching the Hamster class.
- · The contents are easy to understand. Just read them before the class.
- · Worksheets can be downloaded from the Robomation website.
- This manual can be used to ensure the best lesson plan.
- For more information, contact us at <u>7concepton@daum.net</u>.



### **Hamster Coding Unboxing**

Understanding Hamster will make coding more fun and interesting!

I'm the one who will use Hamster, so I need to understand it.



## **Today's Activity**

Division	Description	Time
Introduction	Explore the problem. What is inside the Hamster box?	5min
Development	Find out a solution.  Let's take a closer look at the structure and functions of Hamster.  Solve the problem.  Let's talk about the names and uses of each part of Hamster.	30min
Conclusion	Review today's activities.  Let's talk about what you have learned and found interesting.	5min

Preparation: Hamster, Bluetooth Dongle, charging cable, a PC, writing supplies



Take a closer look at the structure and • functions of your Hamster.

Then, let's talk about what you want to do with it!





#### **About the Hamster robot**



For more information about the structure and functions of Hamster, please see the manual included in the product box or visit the **Robomation website**.







#### Let's open the Hamster box



Pinkie

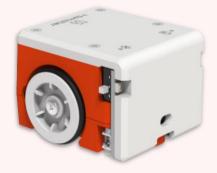
These are the ones inside the Hamster box. Can you guess what they are?

Well, their names are...





Sunny



1 H\_\_s\_r



2 U\_\_do\_g\_e



Ch\_ging c\_b\_e

Let's find the right component for each number and guess their names.

Let's check the part(s) with the O mark.

First, you should turn on your Hamster to use it.

Where is the power switch?



The auxiliary power terminal (3.7 V) is used to power the connectors.

Why not find out where the power switch is and turn it on?



Let's check the part(s) with the O mark.



The red light turns on when it is charging.





Lights are flickering on the top of Hamster.

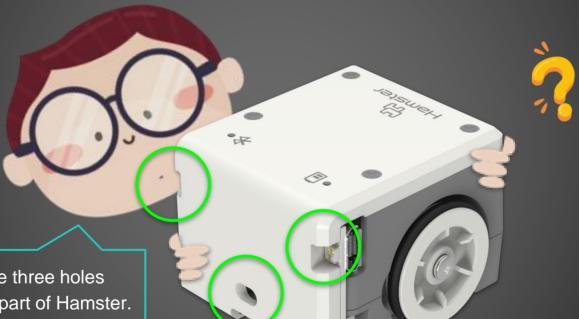
What do you think they are?

The blue light flickers when a device is paired through Bluetooth.

> They indicate the status of your Hamster. Left: Charging indicator Right: Bluetooth connection indicator



Let's check the part(s) with the O mark.



There are three holes on the front part of Hamster.

What do you think they are?

They are input units.

Above: Proximity sensor (infrared transmission) × 2

Below: Proximity sensor (infrared reception) x 1

Let's check the part(s) with the O mark.



What do you think it is?

It is an input unit that senses brightness.





Let's check the part(s) with the O mark.

What are the two black rectangles at the bottom?

They are hidden sensors: a 3-axis accelerometer sensor and an internal temperature sensor.

They are input units. Floor sensor (infrared sensor) x 2



Let's check the part(s) with the O mark.

When your Hamster makes a sound, put your ear to this part.

Your Hamster can make sounds and play music.

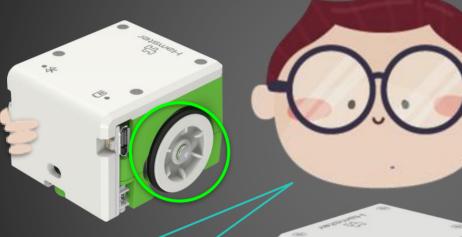
Where does the sound come from?

It is an output unit. Piezo speaker (built-in)



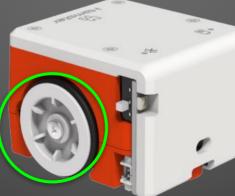


Let's check the part(s) with the O mark.



Hamster uses this when it moves or rotates.

What do you think it is?





A motor is connected to the inside of the wheel.

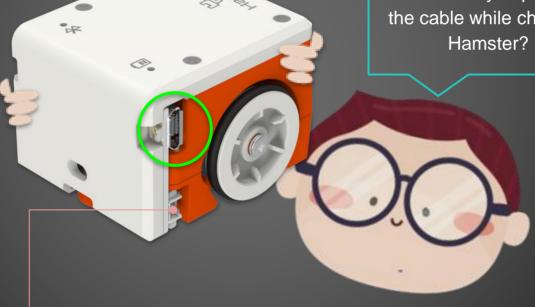


It is an output unit.  $Motor \times 2$ 



Let's check the part(s) with the O mark.

Where do you plug in the cable while charging Hamster?



There is an external input/output terminal to which more sensors or parts can be connected.

The USB charging port is where your Hamster is powered.





# What would you like to do with your Hamster?







Pinkie

Please tell us what you want to do with your Hamster.

Well, I need some time to think about it.



Sunny

\* Why not write down your ideas with a pen and paper and talk about them together?





#### What do you want do?

Let's talk about what you want to do with your Hamster.





#### Let's Review

- What did you learn today?
- Did you encounter any difficulties?
- What interested you the most about Hamster robot?

See you again!

