

# Beauto Racer

## Assembly/Instruction Manual

### Precautions for use

When handling the robot, follow the precautions below for proper use.

- Avoid a strong impact to the robot body.
- Do not wet the robot body with water or do not use it in damp or dusty places.  
A failure may be caused by shorts, etc.
- If smoke is produced from the robot body, immediately turn off the power switch of the robot body. Then, keep the robot with no battery inserted.
- When using the robot on a high place, putting on a desk, for example, take due care to prevent it from falling.
- Do not operate the robot body near small children or do not store it at places within the reach of small children.
- Before storing the body, be sure to turn off the power, remove the battery, and keep it safe away from places subject to high temperatures, high humidity, dust and direct sunlight

### Parts list

※ Before assembly, be sure to check the number of parts.



① Wheel × 2



② O-ring × 2



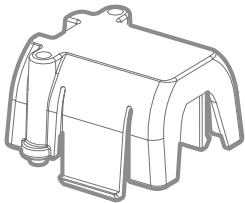
③ Metal washer × 3 (Spare 1)



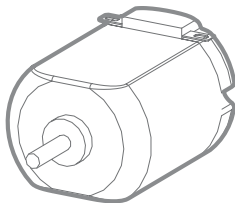
④ Duracon washer (White) × 1



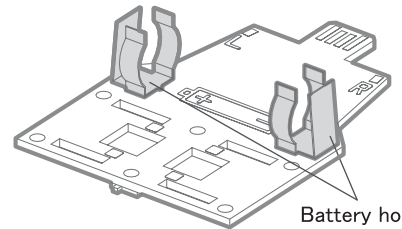
⑤ Push rivet × 1



⑦ Motor holder × 2



⑧ Motor × 2



Battery holder

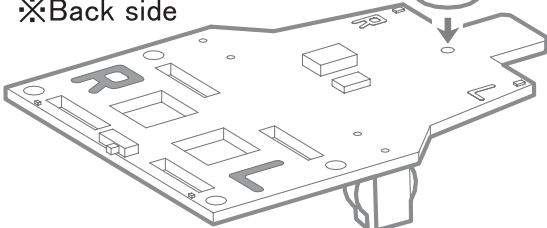
⑨ Board × 1 (the side with the battery holder mounted is the front side.)

#### 01 Install the Duracon washer (white) and the black push rivet on the back side of the board.

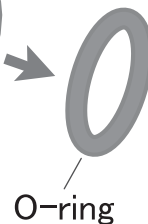
Push the rivet into the hole as far as it stops so that it does not come off. ⚠



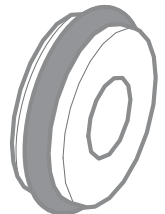
※ Back side



#### 02 Fit the wheel in the O-ring. (Prepare 2 sets.)

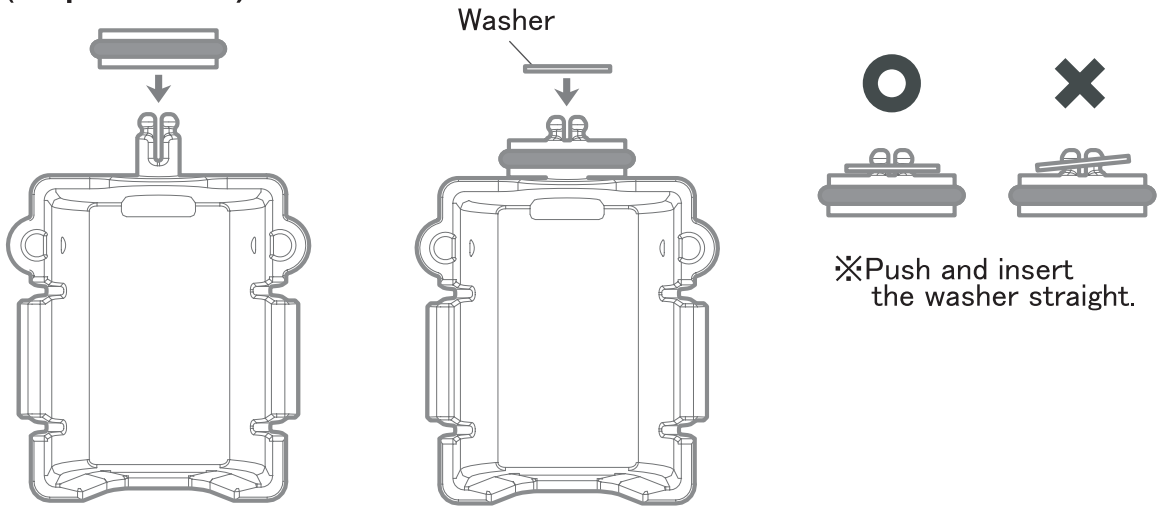


O-ring

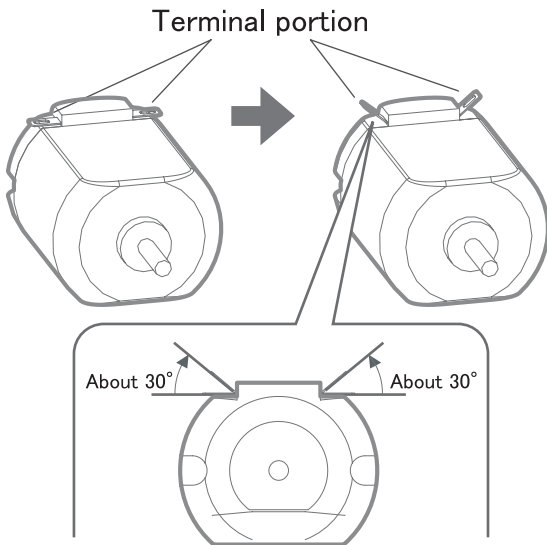


※ Fit into the groove.

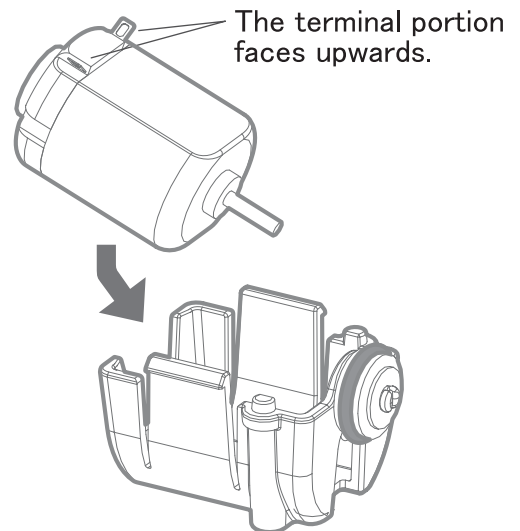
**03 Put the wheel in the motor holder and hold with the metal washer. (Prepare 2 sets.)**



**04 Slightly raise the terminal portion of the motor. (Prepare 2 sets.)**

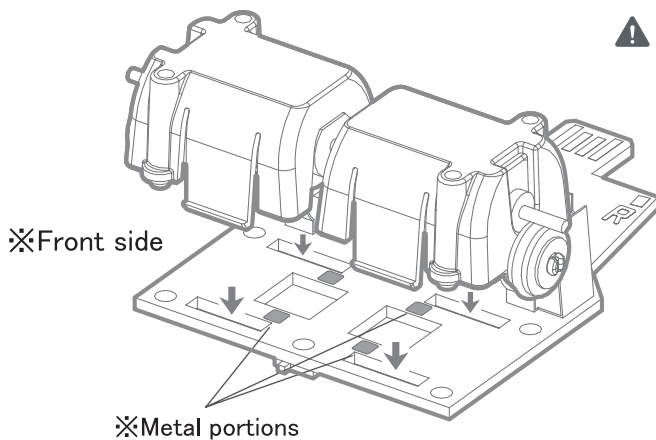


**05 Put the motor into the holder. (Prepare 2 sets.)**

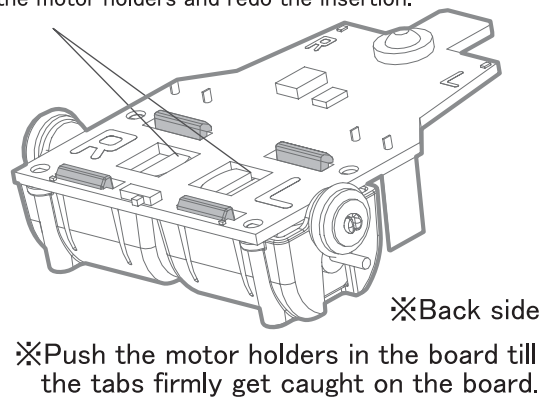


**06 Insert the motor holders in the board.**

✘ Insert them while making sure that the terminal portions of the motors come in contact with the metal portions on the board.

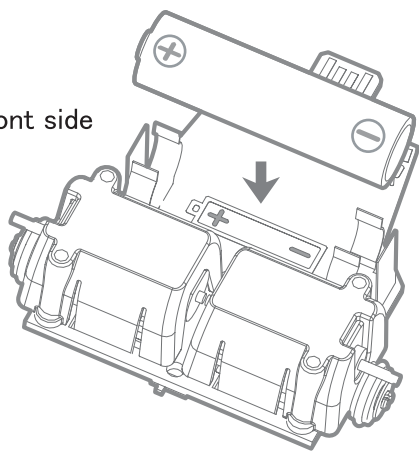


! If the terminal portions of the motors protrude, remove the motor holders and redo the insertion.



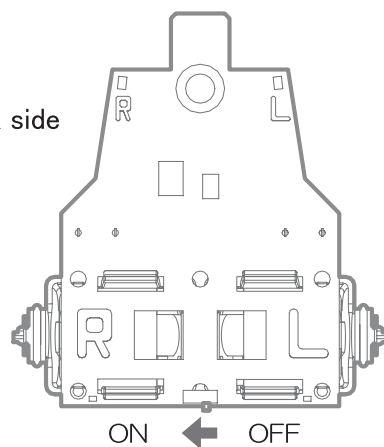
**07 Insert a battery in a proper orientation for + and -.** ※The battery not included.

※Front side



**08 Turn ON the power switch.** ※Immediately, the program will be executed.

※Back side



**09 Checking of operations (with the power ON).**

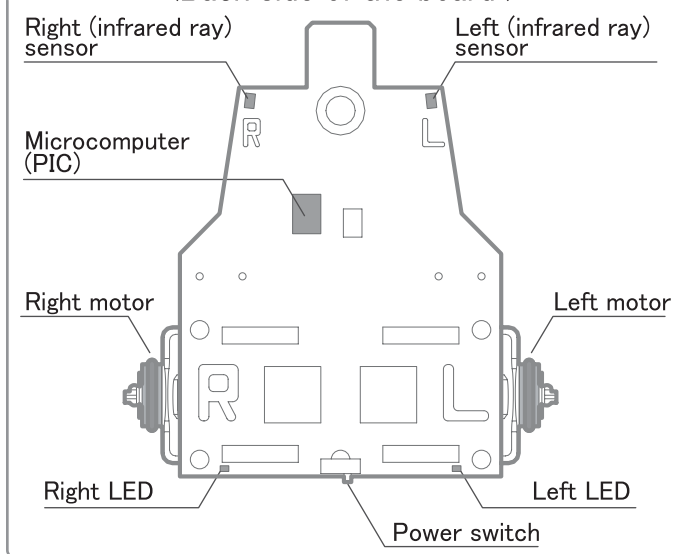
※Touch the sensor with fingers and check if the robot moves as follows.

- ① Not touching the right and left sensors.  
The right and left motors stop and the right and left LEDs light up.
- ② Touching the right sensor.  
The right motor runs and the left LED lights up.
- ③ Touching the left sensor.  
The left motor runs and the right LED lights up.
- ④ Touching the right and left sensors.  
The right and left motors run and the right and left LEDs goes out.

**⚠ When the motors do not drive well.**

- A. The motor holders may not fit in the board well.  
Push them in the board so that the tabs firmly get caught on the board.
- B. Displace the motor holders and adjust contact of the terminals.
- C. Bend the terminals of the motors and place the motor holders again.

<Back side of the board >



**10 Run the robot on the line course (for beginners) at the back.**

※Please download the line trace course.

[http://www.vstone.co.jp/english/products/beauto\\_racer/download](http://www.vstone.co.jp/english/products/beauto_racer/download).

The robot will do a line trace (runs on the line tracing the line).

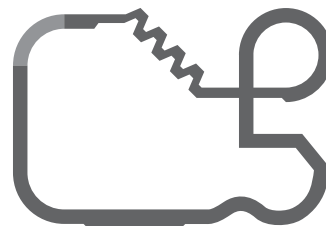
※In a place exposed to sunlight or other surrounding lights, the robot may not trace a line.(The sensors reacts strongly due to lights containing infrared ray such as sunlight.

After the assembly of the robot is completed. With reference to Operation Manual of Beauto Builder R", conduct programming for Beauto Racer.

Furthermore, try making a program with which you can clear the advanced-level course.



Beginner course

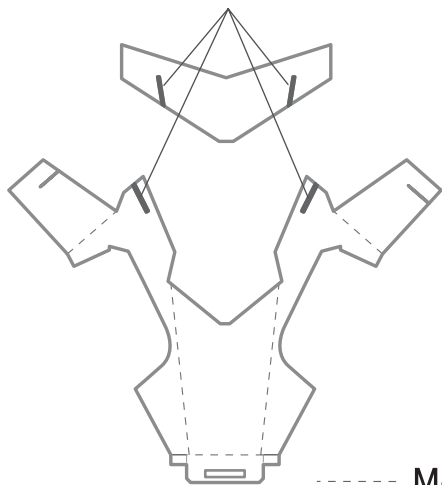


Advanced-level course

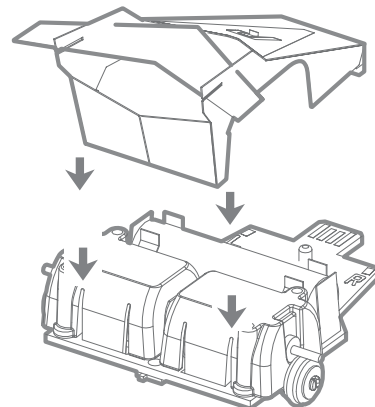
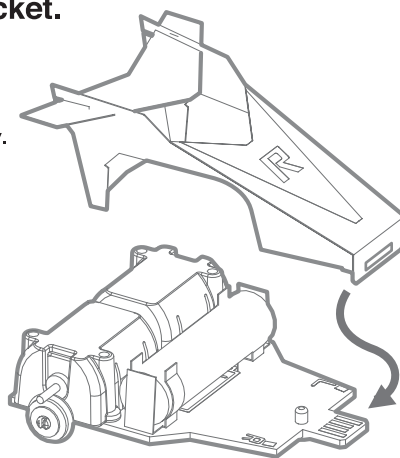
# 11 Attachment of the outer jacket.

Try an original color.

By cutting off the pink or red portions, the outer jacket can be attached more easily.



----- Mountain fold



## Vstone official shop

● Vstone Robot Center at Tokyo Akihabara

4F Uchida building, Sotokanda Chiyoda-ku, Tokyo 101-0021, Japan

● Vstone Robot Center at ROBOSQUARE

TNC Broadcast Hall, 2-3-2 Momochihama, Sawara-Ku, Fukuoka City, Fukuoka Pref. 814-0001, Japan

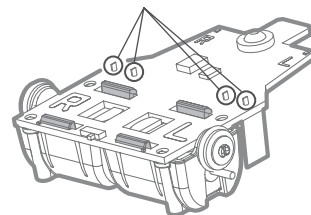
## Supplemental remark

### Soldering of battery holder.

The battery holder and the board are not soldered before shipment. You can use the robot without any problem as it is, but by soldering, the battery holder can be completely secured to the board.

※For children of junior high school age and under, an adult shall conduct such a soldering work.

Soldering points



Official Web Site

**Beauto Racer**

[http://www.vstone.co.jp/english/products/beauto\\_racer](http://www.vstone.co.jp/english/products/beauto_racer)

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GET information about robot handcraft classes or other events at the ROBO-PRO site

<http://robo-pro.net>

Robot communication site

**LET'S★ROBOT** (Japanese)

Full of robot-related contents such as download of latest sample motions and videos!

<http://lets-robot.com>

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