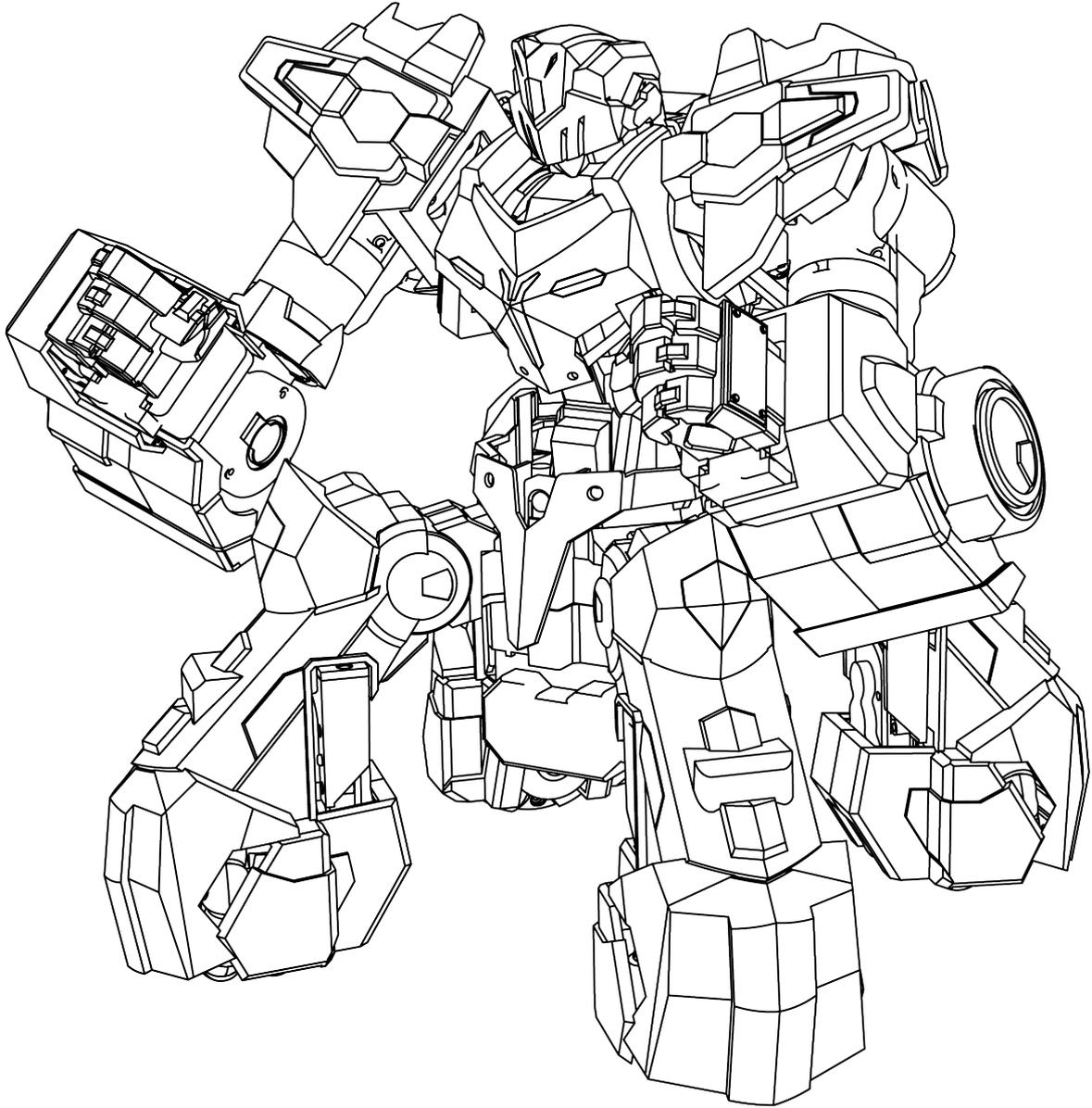


GJS ROBOT



GANKER EX

User Manual

V1.0

Contents

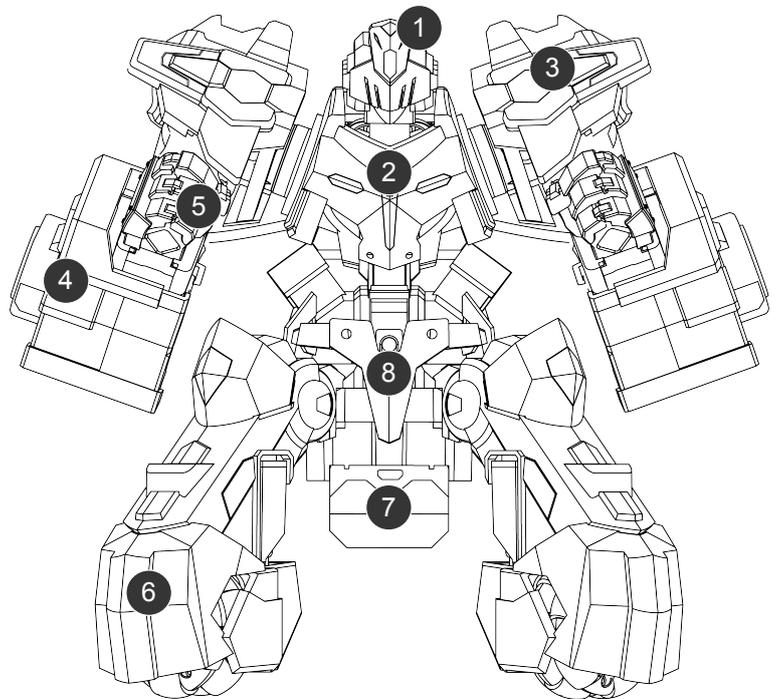
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Product Overview

This chapter mainly describes the features and preparations for GANKER EX.

About GANKER EX

GANKER EX is a new generation battle robot that is equipped with advanced motion systems and is capable of implementing multi-dimensional upper limb motion, omni-directional chassis motion, and precise spatial orientation. The sensitive electronic scoring system is used to implement scoring and determine the winner/loser in battle.

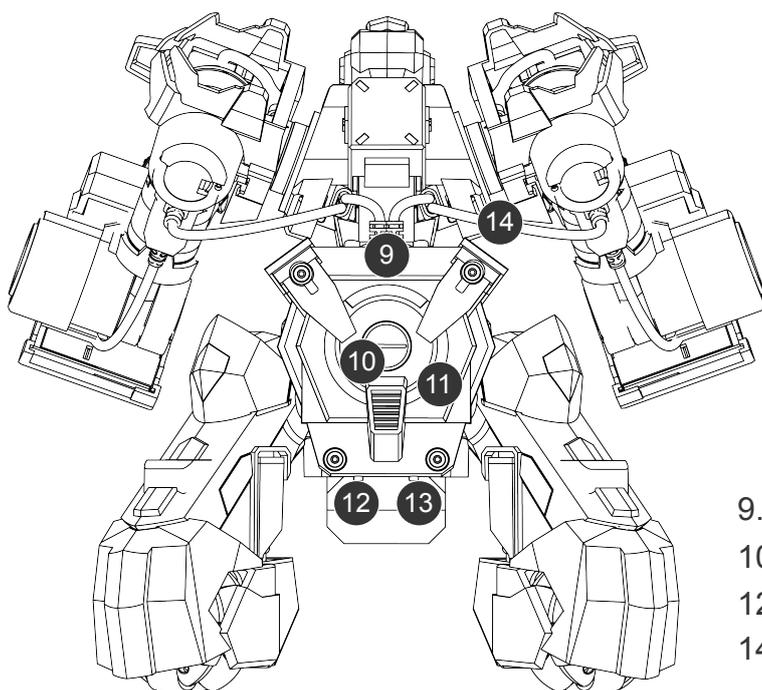


1. Personalized armor
2. Light system¹
3. Electronic scoring system²
4. High precision servo³
5. Weapon holder
6. Omni-directional chassis system
7. Battery
8. IR scoring system

*1: Light sites are located on the head, chest, shoulders, arms, and legs

*2: Electronic scoring sites are located on the head, chest, shoulders, arms, and back

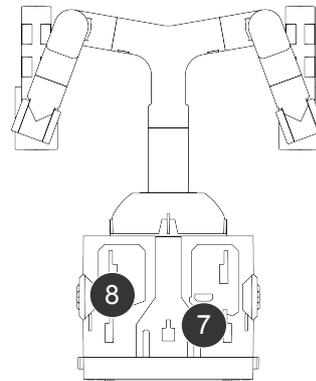
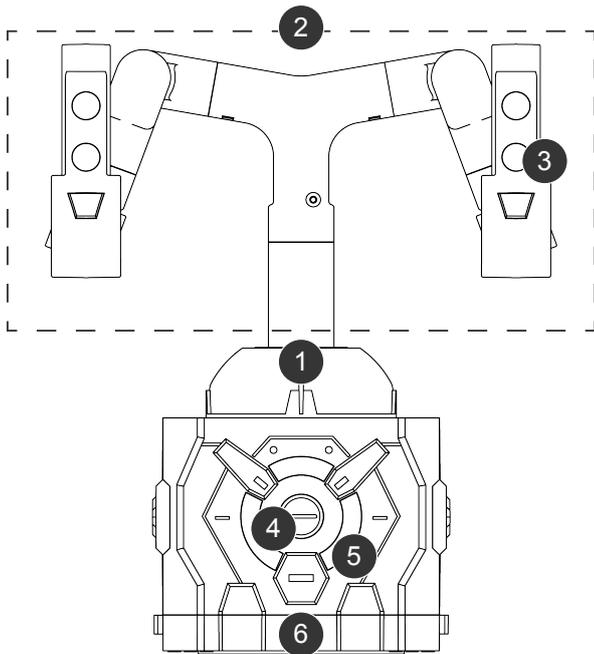
*3: There are 9 servos in total



9. Master controller backpack
10. Power switch
11. Ring indicator
12. WPS button
13. Reset button
14. Servo cable

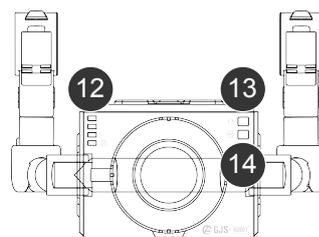
About the Controller

The controller for GANKER EX is designed with up-to-date wireless control technology and is capable of controlling the robot more stably and efficiently. A high-precision spatial orientation algorithm is used to fully and synchronously map the actions of the controller to the robot. There are two application scenarios for the controller: desktop and wearable (to be used with a waistband).

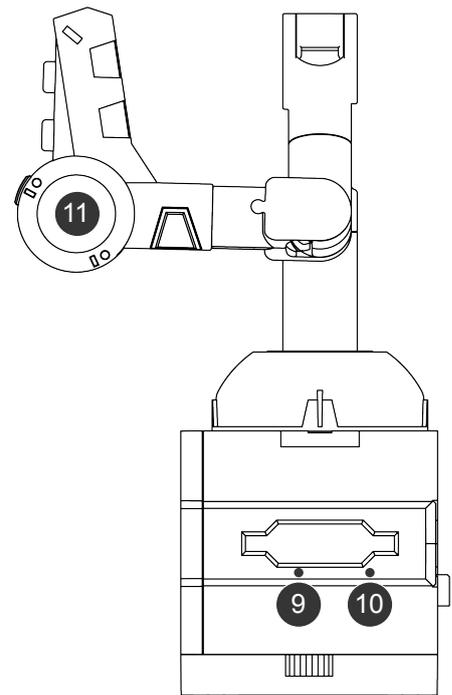


Rear view

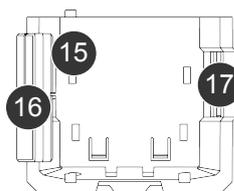
1. Cross rocker
2. Posture synchronizer
3. Function key
4. Power switch
5. Ring indicator
6. Sucker
7. Recharge socket
8. Waistband bayonet



Top view



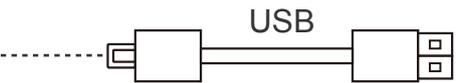
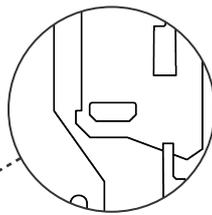
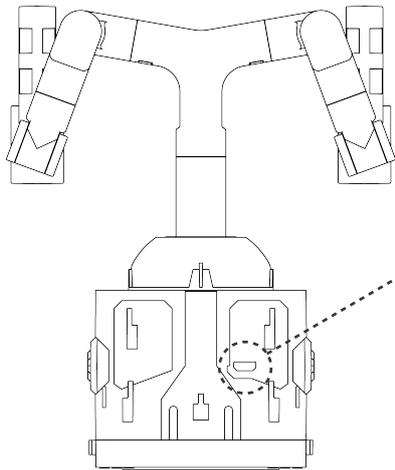
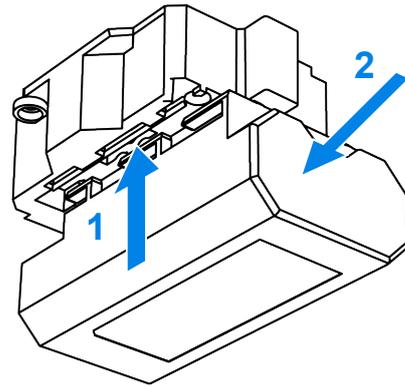
9. Reset button
10. WPS button
11. Finger ring
12. Battery level indicator
13. Robot connection indicator
14. Mobile phone connection indicator
15. Joystick controller buckle
16. Elastic waistband
17. Elastic waistband buckle



Waistband

Installing the Battery and Recharging

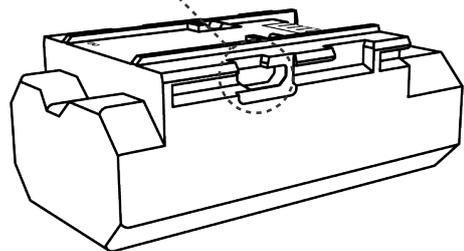
Installation of machine battery



Controller recharge



Machine battery recharge

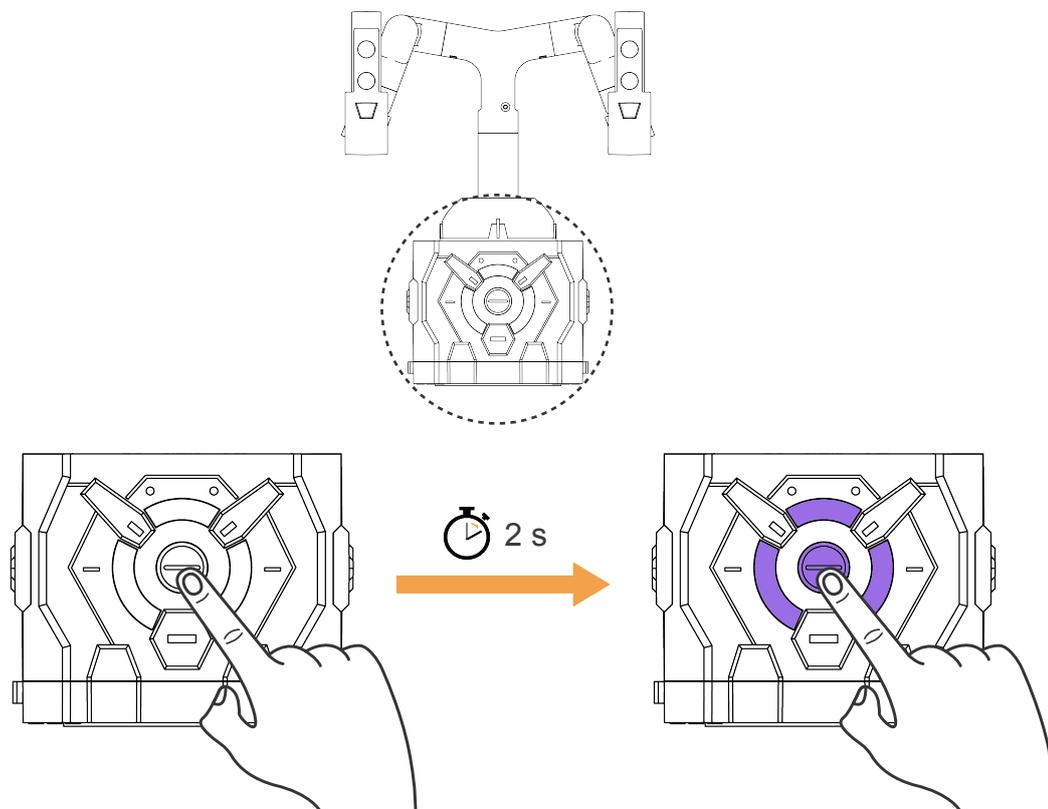


Using GANKER EX

This chapter mainly describes the basic operations, application scenarios, and scoring rules of GANKER EX.

Preparing the Controller

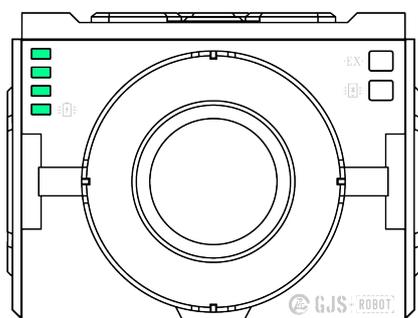
▶ ON/OFF



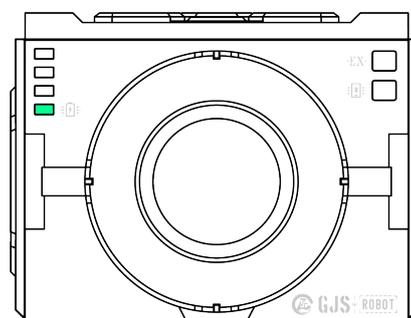
ON: Press and hold the button for about 2 s until the light on the front turns on (1 short beep)

OFF: When powered on, press and hold the button for about 2 s to turn the machine off

▶ Controller Battery



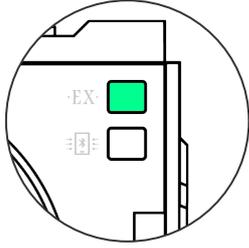
Controller fully charged



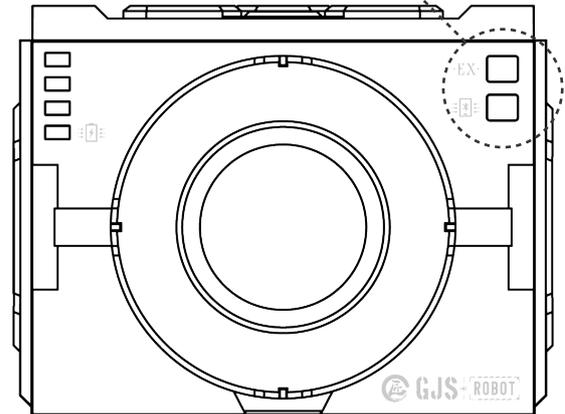
Controller battery low

(When recharging: The green indicators as shown in the figure are lit up from the bottom up)

► Control status indicator



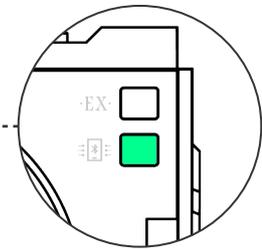
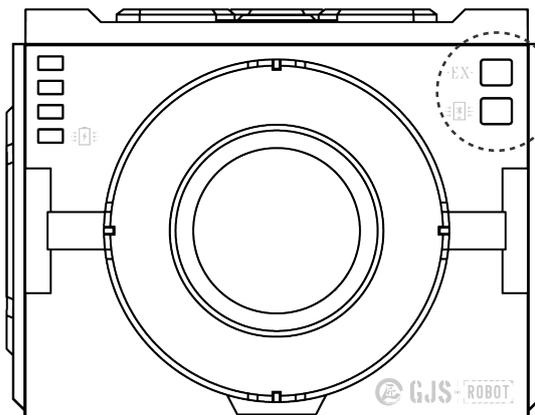
Robot connection indicator



Steady on: Communicating with the robot

Flashing slowly: Robot battery low

Flashing quickly in a cyclic manner: Searching for and connecting to the robot

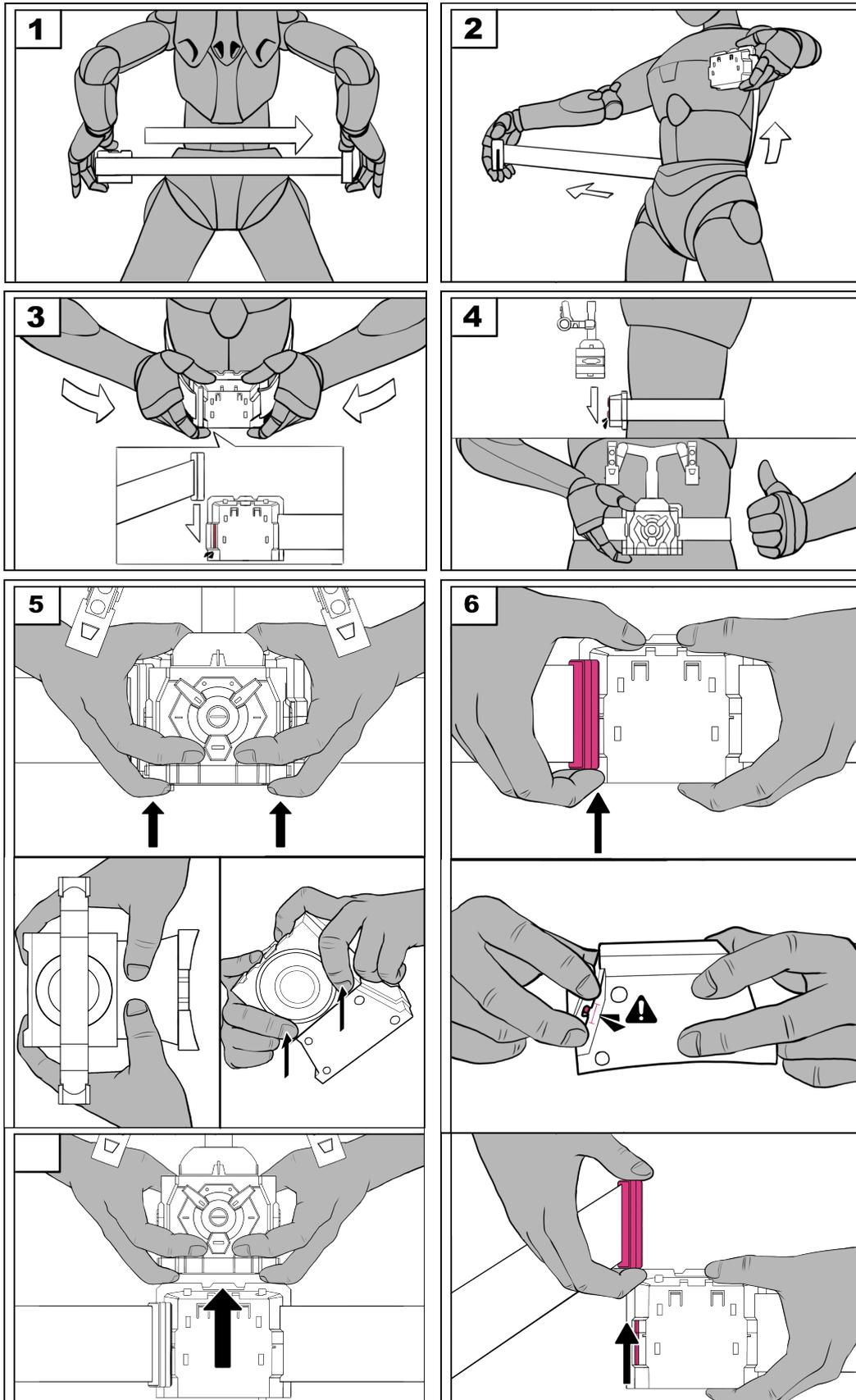


Mobile phone connection indicator

Steady on: Communicating with the mobile device (GANKER EX APP)

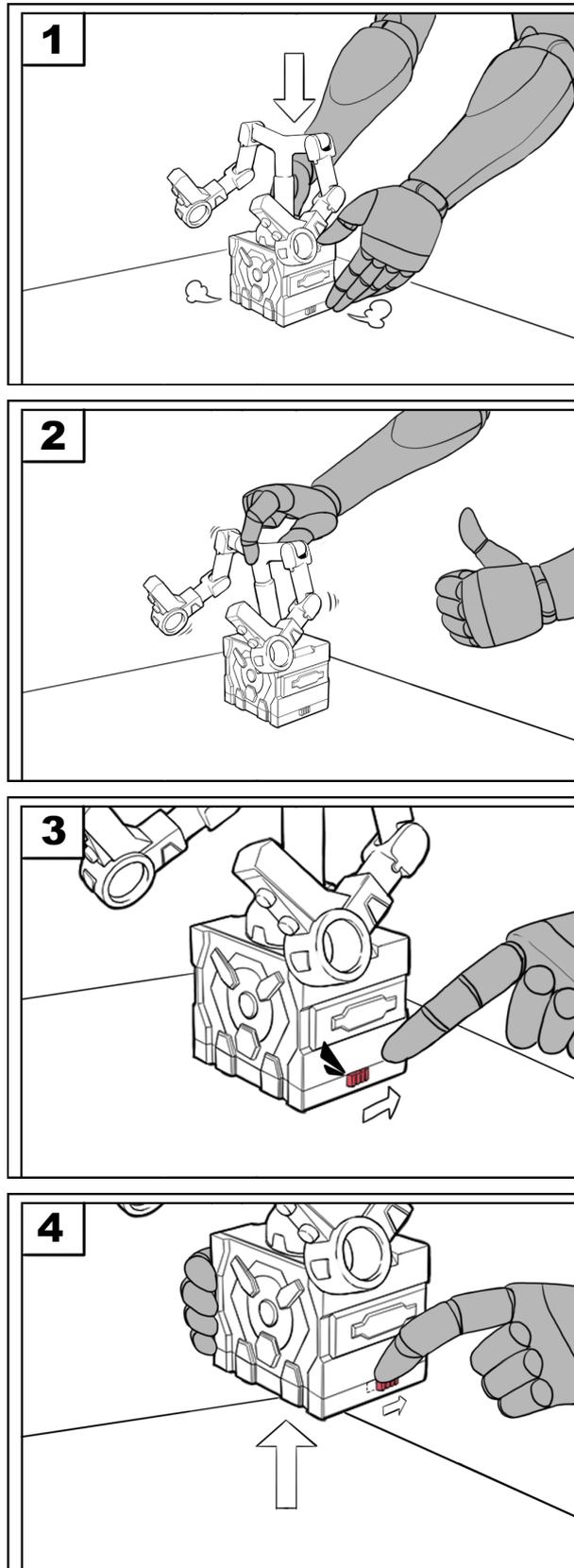
Application Scenarios

► Wearable



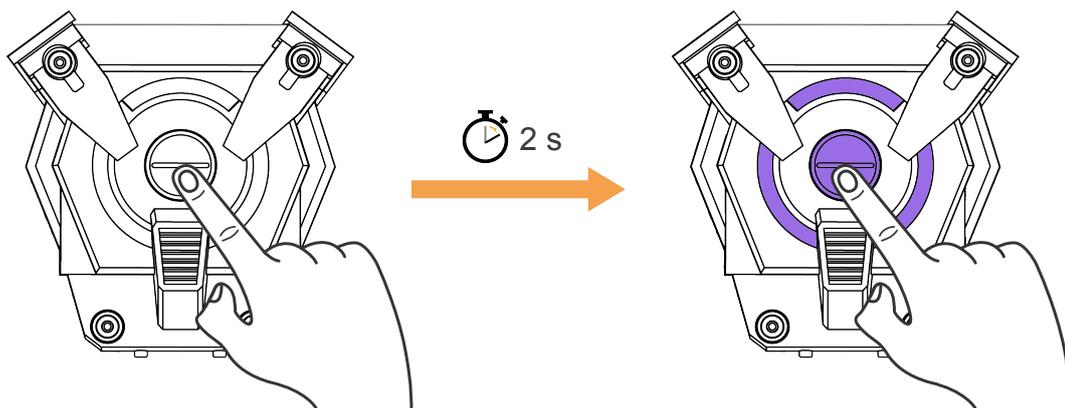
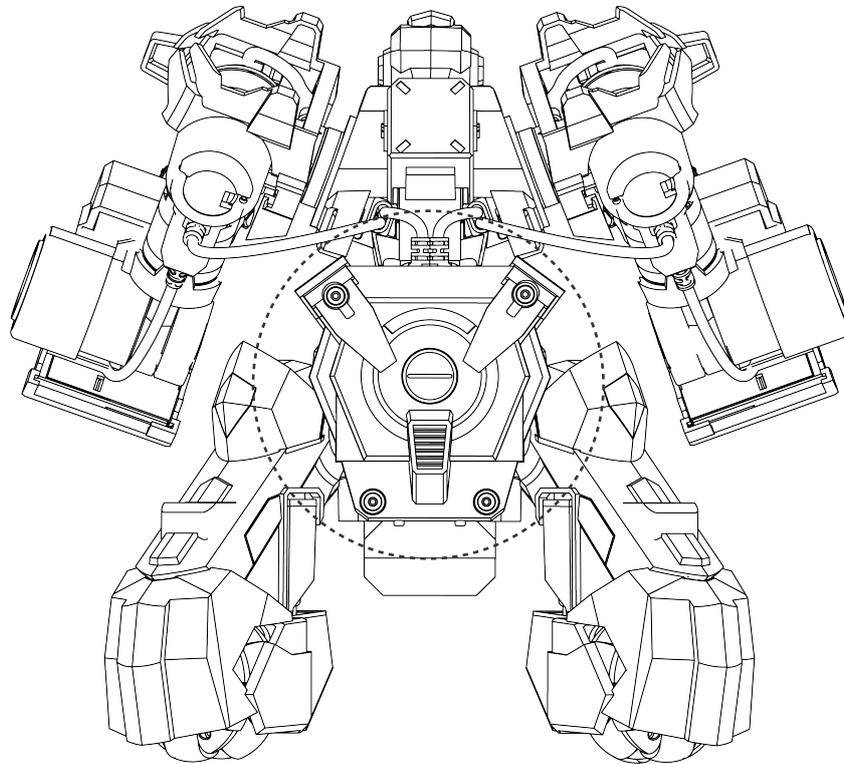
Application Scenarios

► Desktop



Preparing the Robot

► ON/OFF

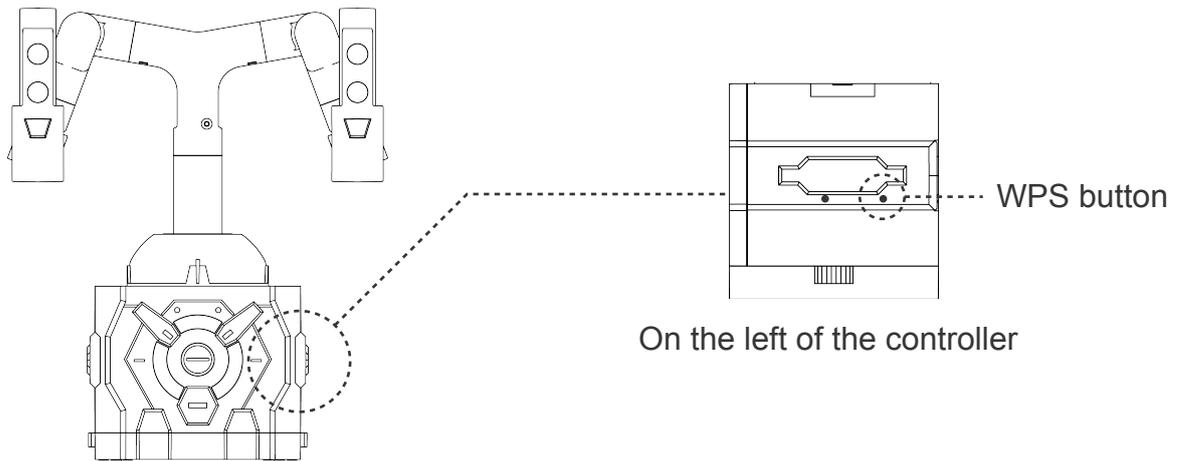
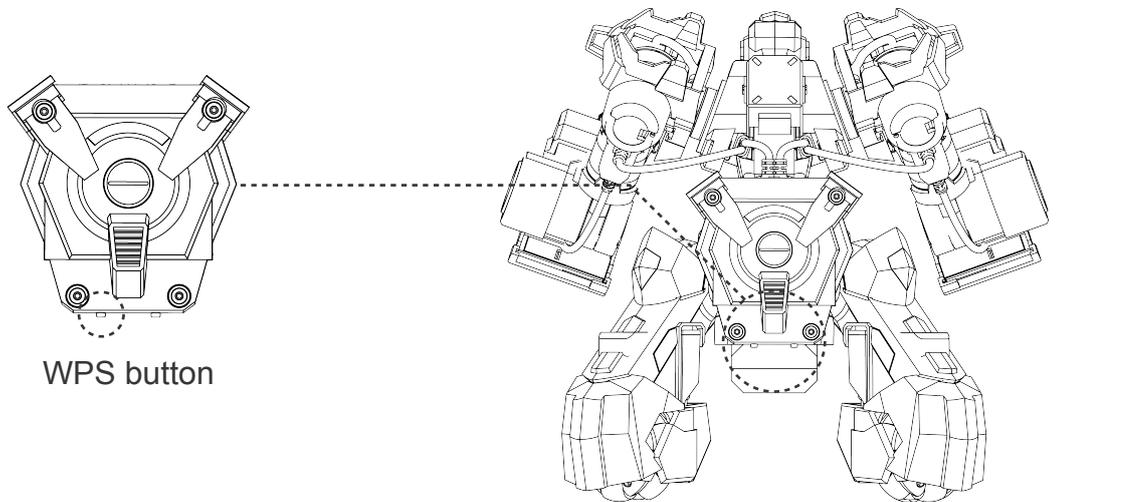


ON: Press and hold the button for about 2 s until the light on the front turns on (1 short beep)

OFF: When powered on, press and hold the button for about 2 s to turn the machine off

Connection

► Initial Connection/Changing the Controller



1. After startup, both ring indicators act as a breathing light.
2. When the breathing light changes to a steady light, press the WPS buttons on the robot and also the joystick controller respectively. In this case, both ring indicators will flash quickly in a cyclic manner.
3. After they communicate with each other, the robot connection indicator on the controller will be lit up, accompanied with 2 short beeps from the buzzer.

! If WPS connection failed, the ring indicator returns to a steady light (without a beep). In this case, press the WPS button again and try again.
When the ring indicator is a breathing light, do not press the WPS button.

► Non-initial connection

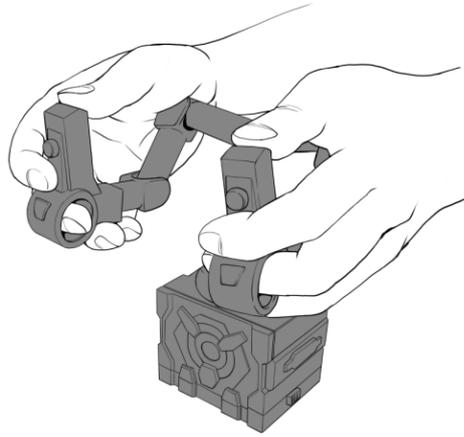
After startup, the robot with WPS enabled will be automatically connected to the joystick controller.

The robot connection indicator will flash quickly in a cyclic manner during connection and change to a steady light after successful connection.

Movement

When the controller is successfully connected to the robot, you are now ready to control the robot.

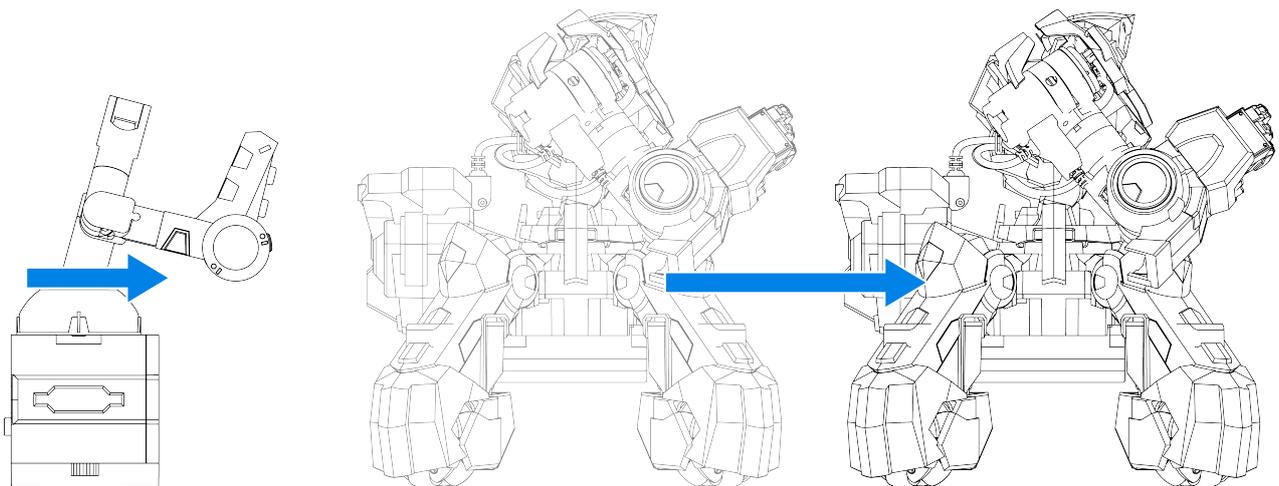
► Preparation Posture



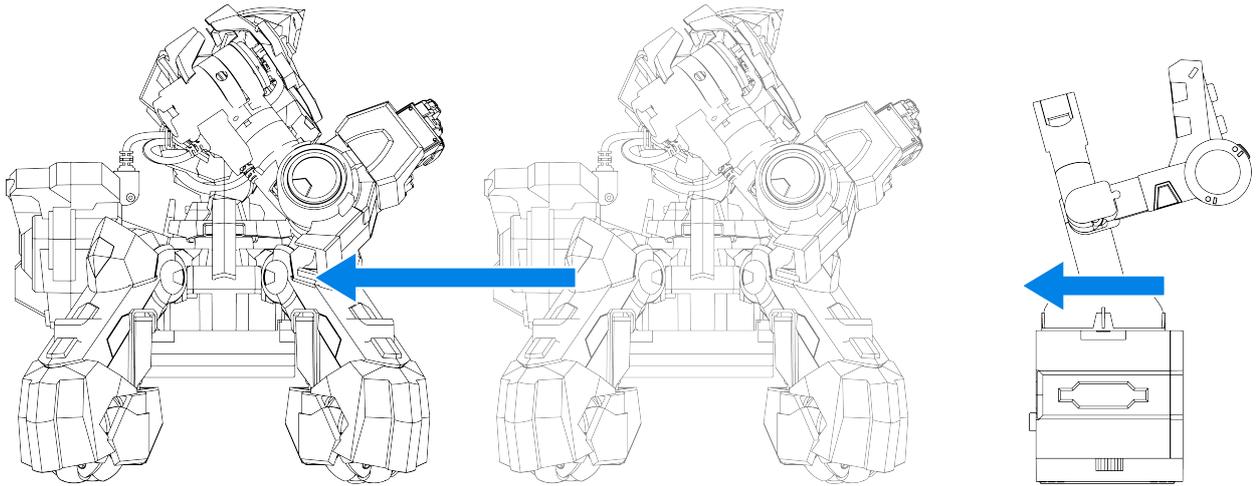
Place your middle fingers through the rings at the front end of the controller, and lightly rest your index fingers on the L/R keys.

Lightly rest the palms at the base of the thumbs on the shoulders of the joystick, as shown in the figure, to keep the preparation pose.

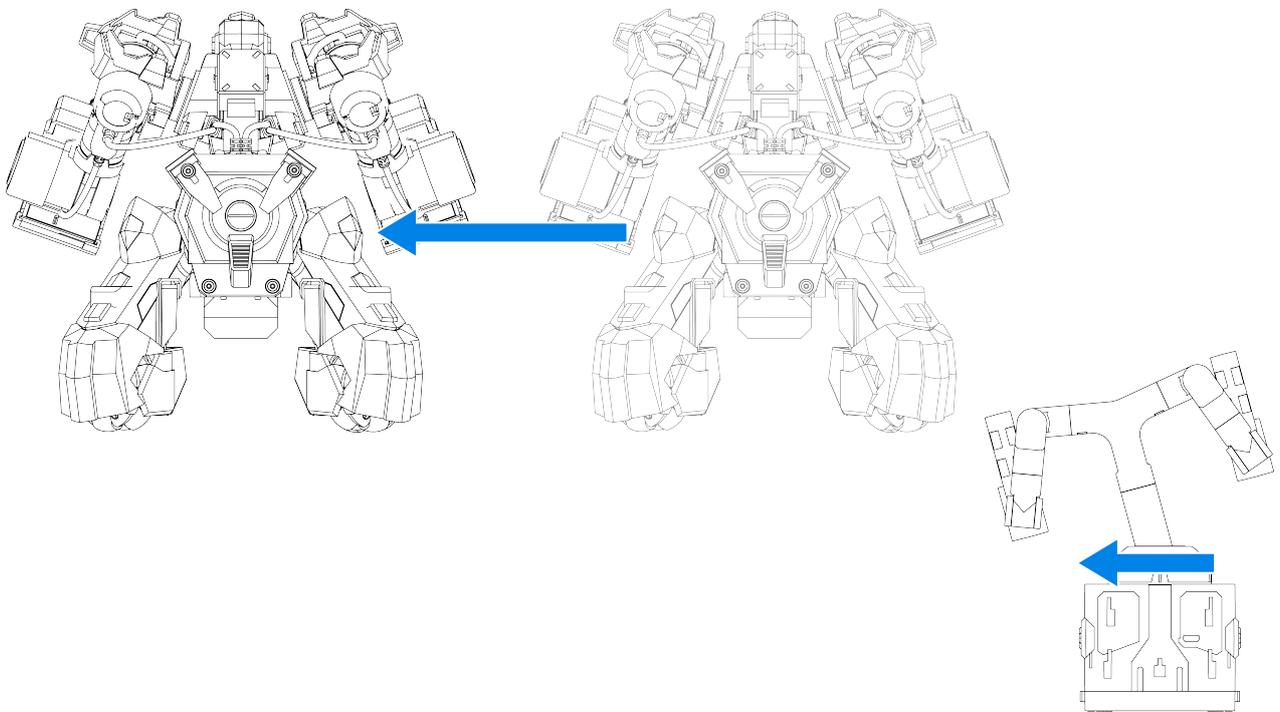
► Chassis Movement



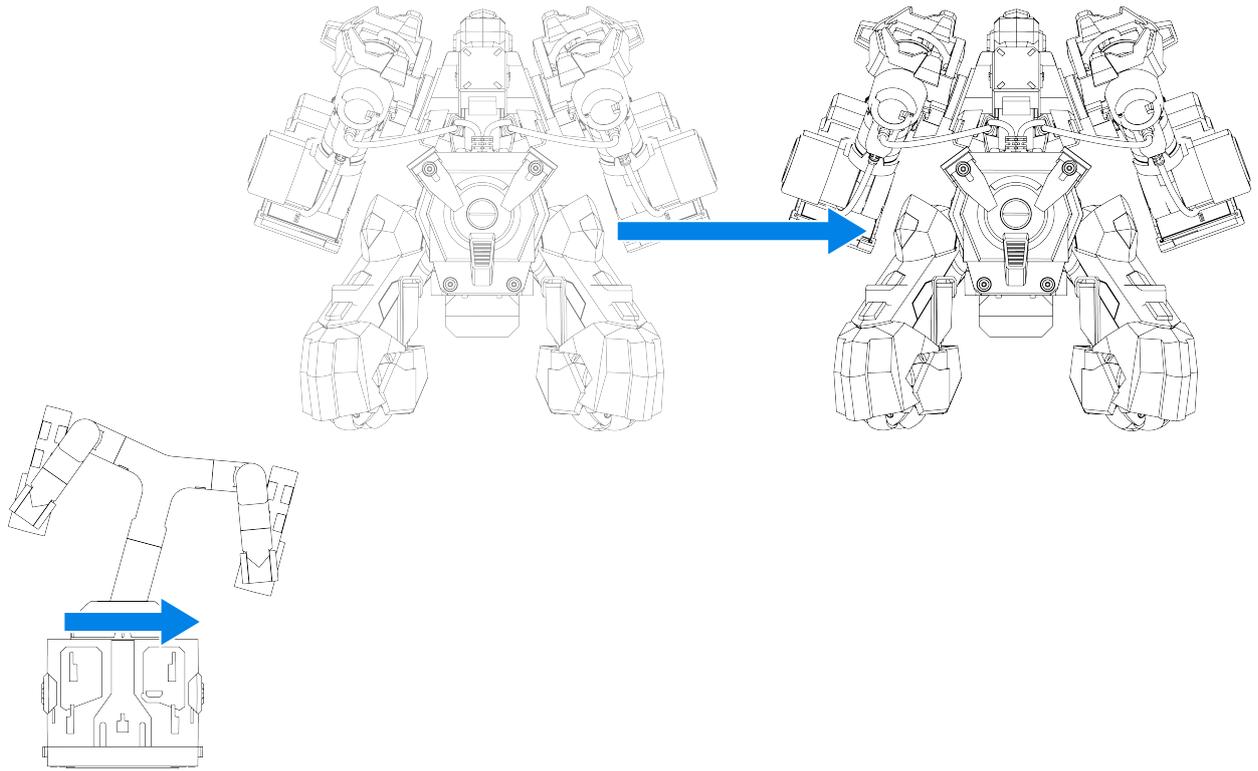
Pushing the cross rocker forwards will make the robot move forwards.



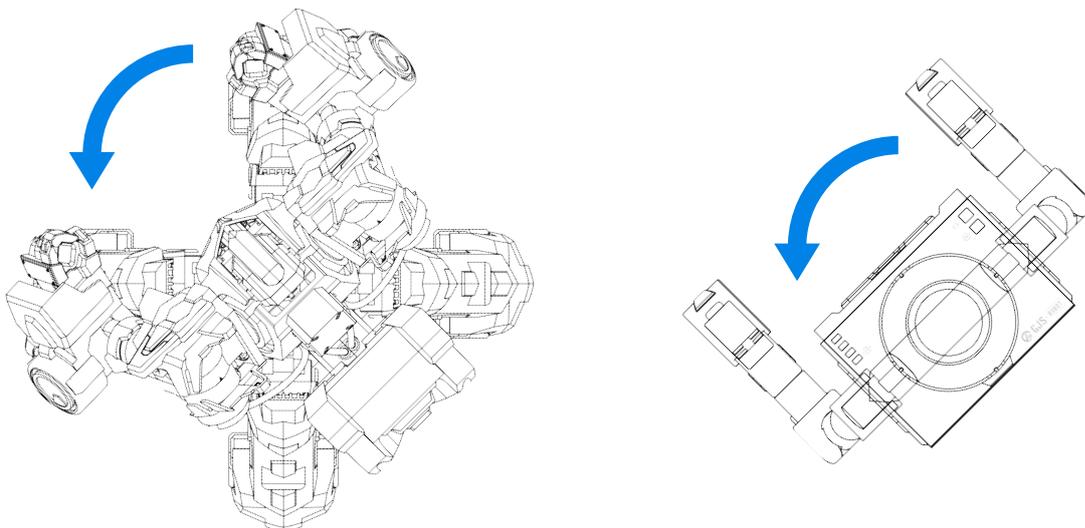
Pushing the cross rocker backwards will make the robot move backwards.



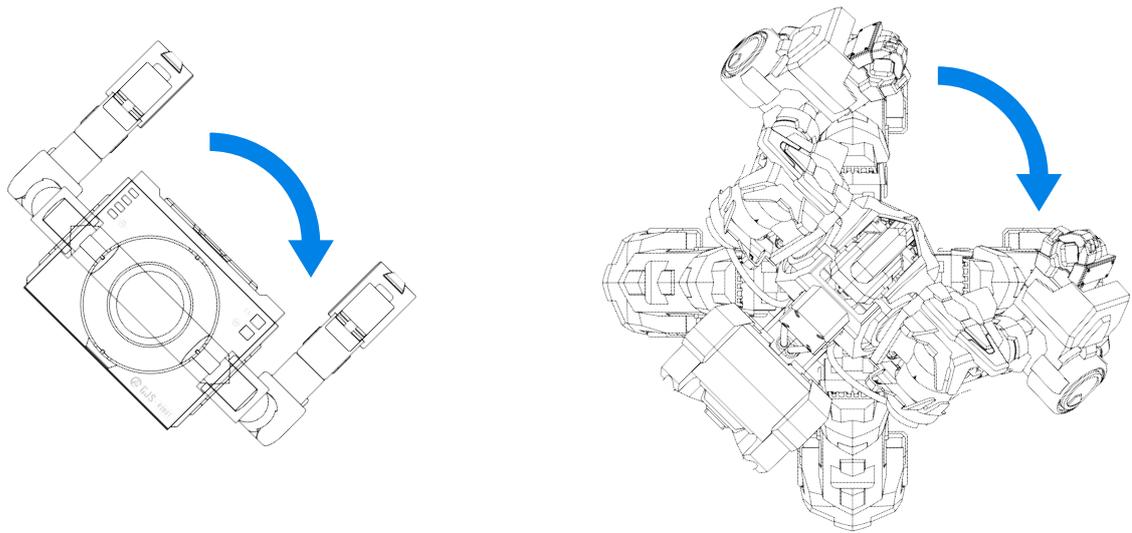
Pushing the cross rocker to the left will make the robot move left.



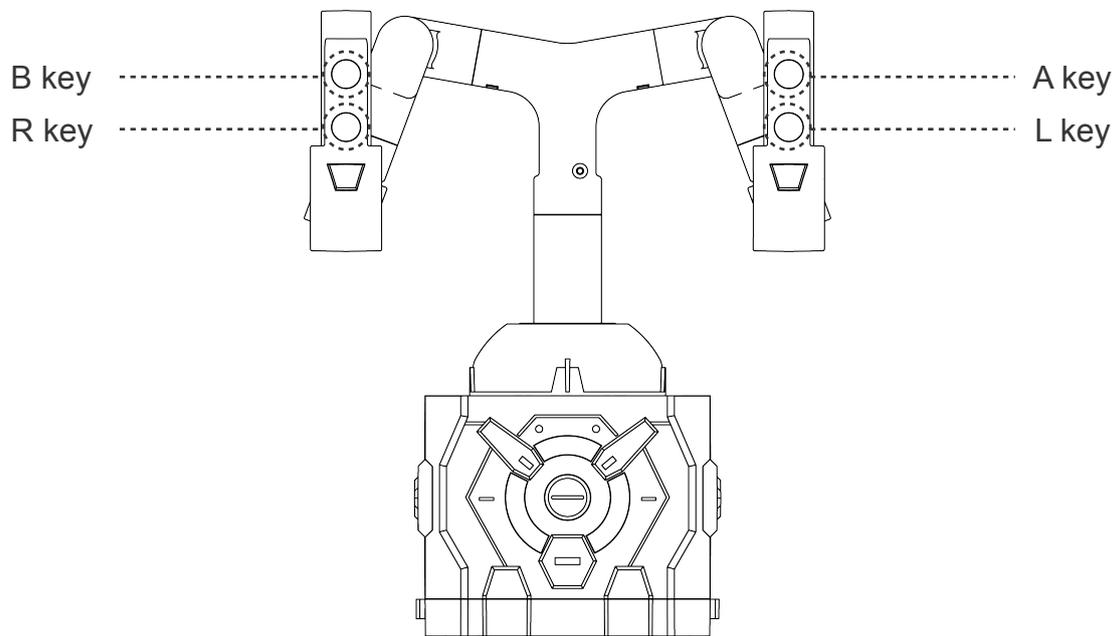
Pushing the cross rocker to the right will make the robot move right.



Anti-clockwise rotation of the body (when the controller is worn) will drive the robot to rotate anti-clockwise.

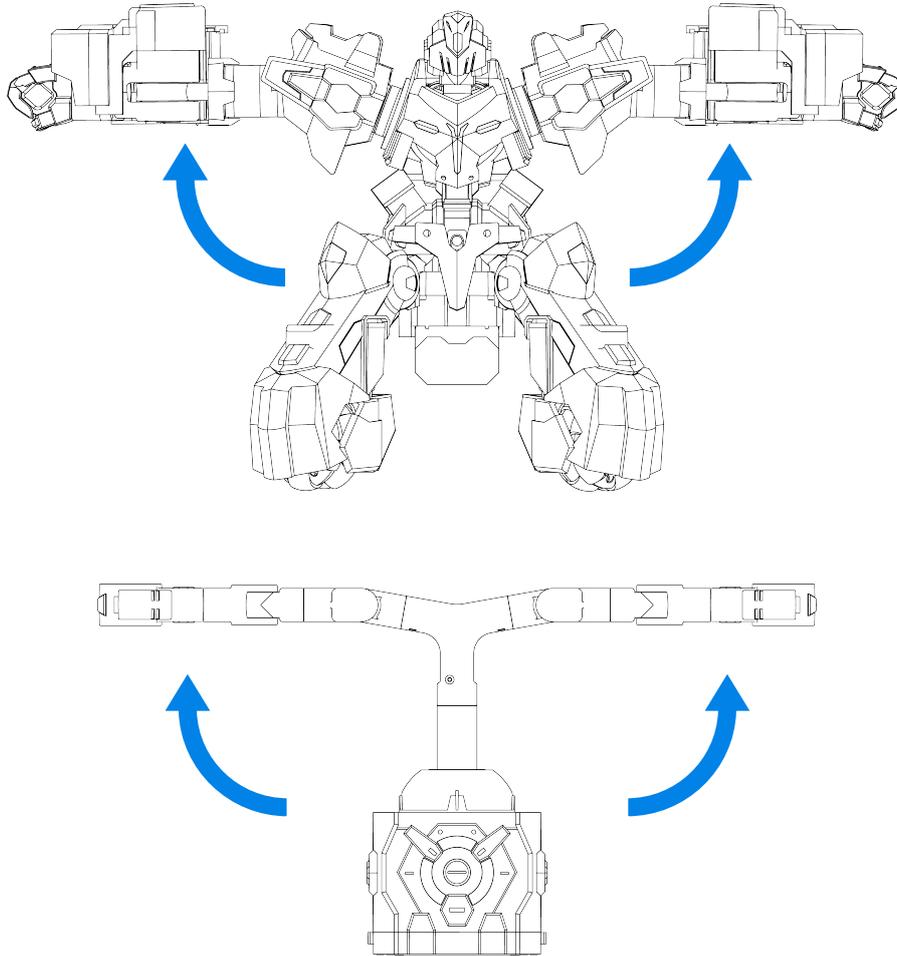


Clockwise rotation of the body (when the controller is worn) will drive the robot to rotate clockwise.



Press and hold the L/R key on the handle to control the anti-clockwise or clockwise rotation of the robot.

► Upper Part

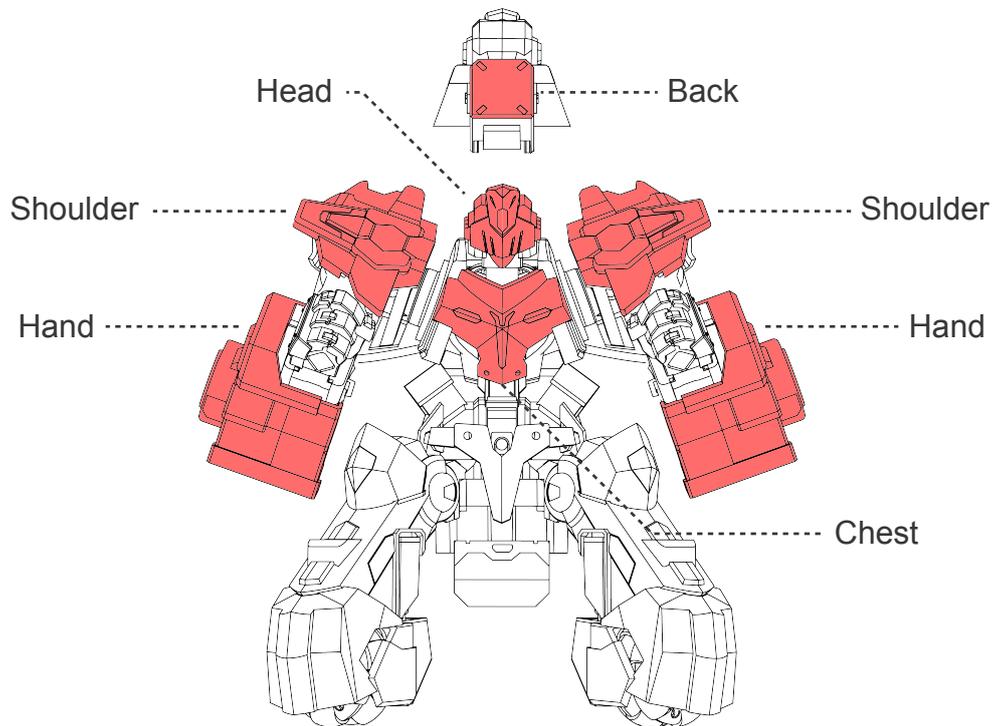


Starting from the preparation posture, control the upper part of the joystick to execute humanoid motions to control the upper part of the robot.

► Key Functions

Controls	Features
Press and hold L + R + A + B for 3 seconds (when the machine dies)	Revive
Press L + R + A + B	Stop/resume robot control

Scoring and Judgment Rules



The robot has a total of 7 electronic scoring points on its body. Scoring will be triggered when it receives a hit under a certain amount of force.

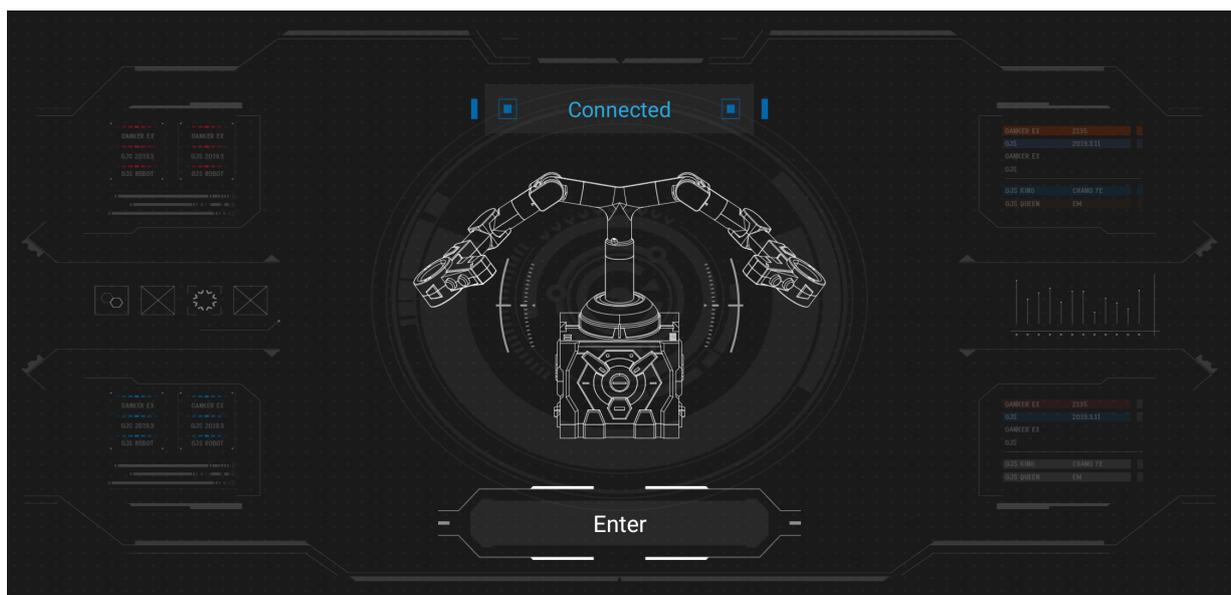
APP Download and Instructions



You can download "GANKER EX APP" from the App Store or an Android app store for free.

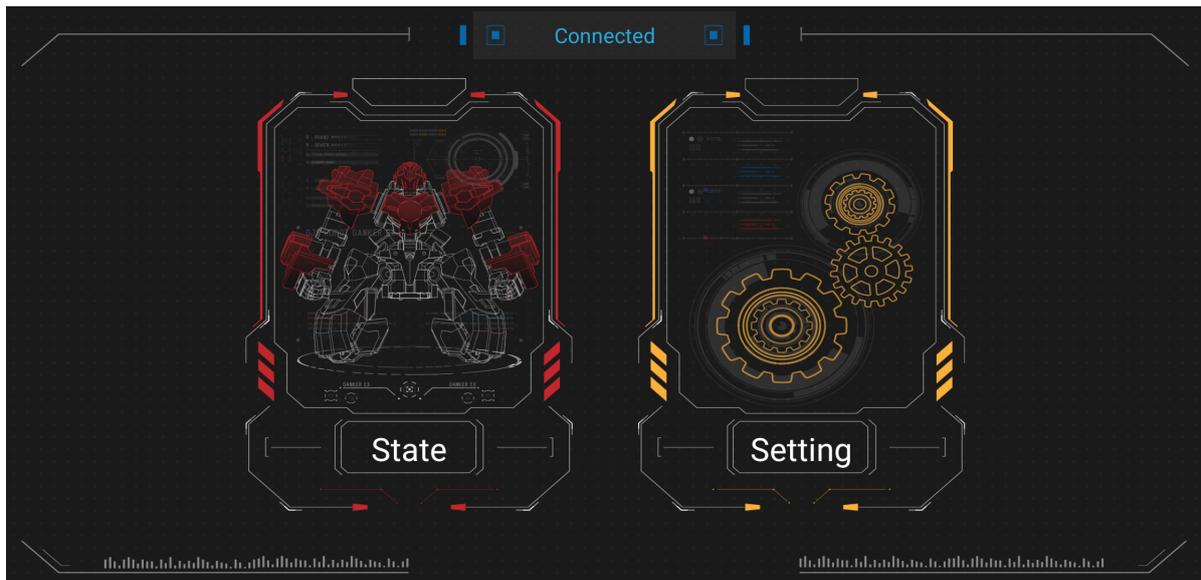
► APP Download and Instructions

1.Connect to GANKER EX via Bluetooth



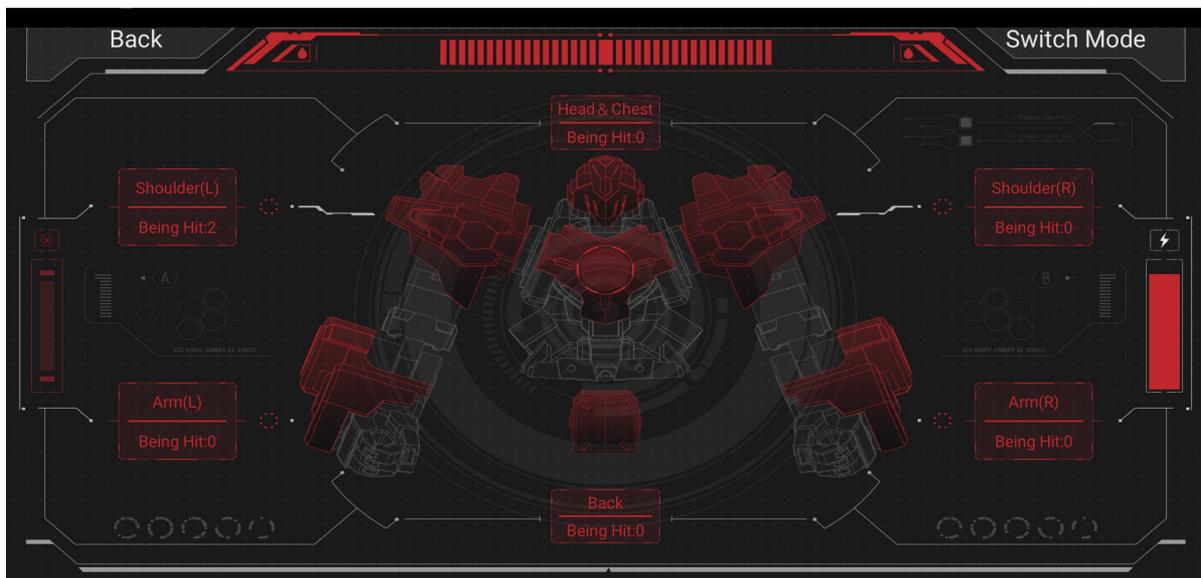
When you see this screen, switch on Bluetooth on your mobile device, and move it closer to the controller's main control module (the lower square box for the Joystick Controller; the waist module for the Motion Capture Controller). The controller will automatically connect to your mobile device.

2.Home

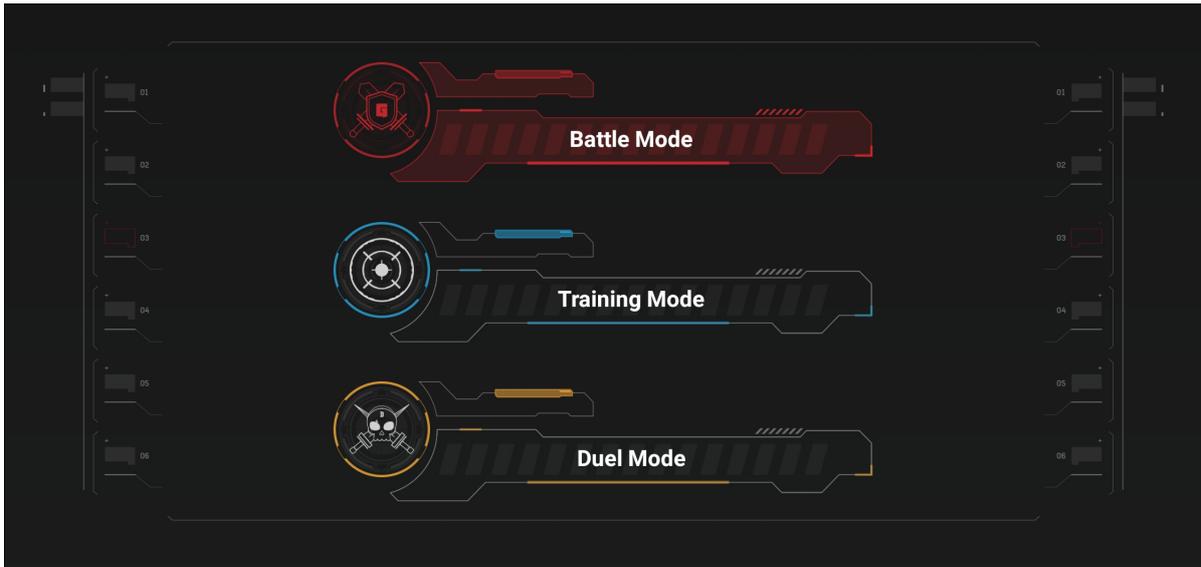


When your mobile device has connected to the controller, the Home screen will display three menus offering more functions.

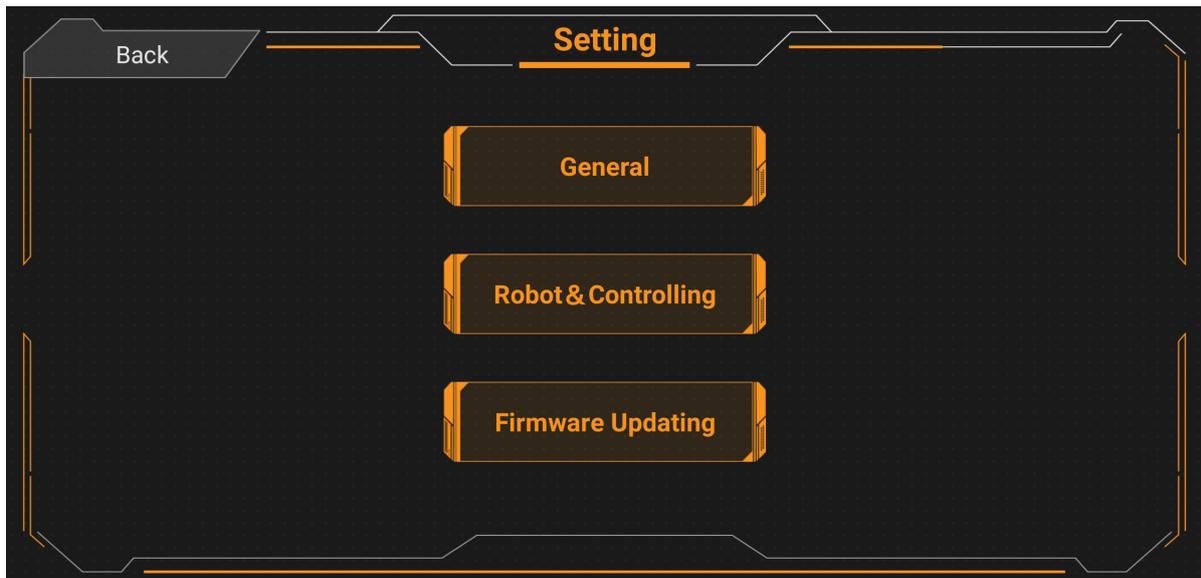
3.Battle Stats



This screen displays real-time health, battery usage, and damage information for each module of your robot. You can also switch to different battle modes here.



4.Settings



This screen allows you to configure some functions and parameters for the APP, robots and its controller. It also allows you to upgrade the firmware of the robot and its controller. For more information about firmware upgrades, see the instructions in the APP.

Technical Specifications

• Robot

L×W×H (without a case): 236×188×218 mm

L×W×H (with a standard case): 251×197×222 mm

Weight (including a standard case): 1375 g

Number of servos: 9

Number of motors: 4

Materials: aluminum alloy, ABS, and PC

• Controller

Communication: Wi-Fi

Operating frequency: 5 GHz

Battery capacity: 1500 mAh

Rated input: 5V \Rightarrow 1A

• Robot battery

Capacity: 2000 mAh

Rated input: 5V \Rightarrow 2A

Battery type: lithium battery

Operating temperature: 0°C - 40°C

Technology and craftsmanship give rise to happiness.

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