RooboMaster Youth Championship Client Interface Instructions

Contents

Note:
 * indicates the newly added or adjusted content for the new client in accordance with the rules of RoboMaster 2022 Youth Championship.
The client display for primary and junior/senior categories are similar. Specific differences can be found in actual usage.

User Interface - Main Interface

1. Overview

School Badge and Name

Total HP Damage Comparison

HP Base HP Bar Red Robot Round Countdown Score Blue Robot Base Armor Value

Red Team

4000

Round - 5th

3 5:00 2

Blue Team

4000

40004 ✕ 40000

3 2 1

A short English text for neutral information

A short English text for neutral information

A short English text for advantageous information

A short English text for disadvantageous information

A short English text for neutral information

500

1700 / 2000

120

2

Robots Sensor Battery Wi-Fi

1 6s 3 4 C

Q E R T

Module Status Marquee Text Aim Point Custom Skills

Current Robot Status Mechanical Arm Operation

2. Description

1) Base HP Bar on the Top

Red Team

3000 HP

Base HP　　Base　　　School Name and Team Name　　School Badge
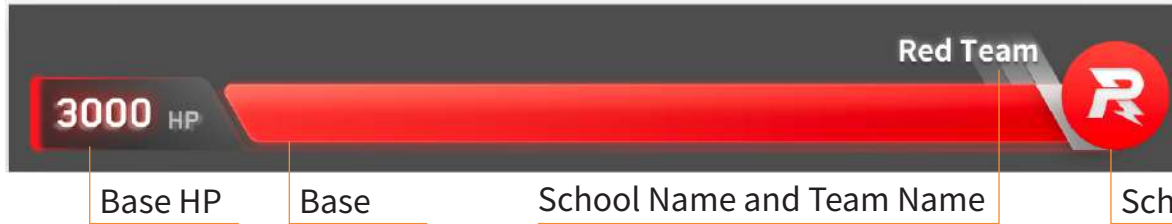
During the Automatic Movement Phase (the first minute of the match), since both Bases have no armor value, the panel displays "HP".

HP Deduction　　Red Team

2500 HP

Foreshowing HP Segment
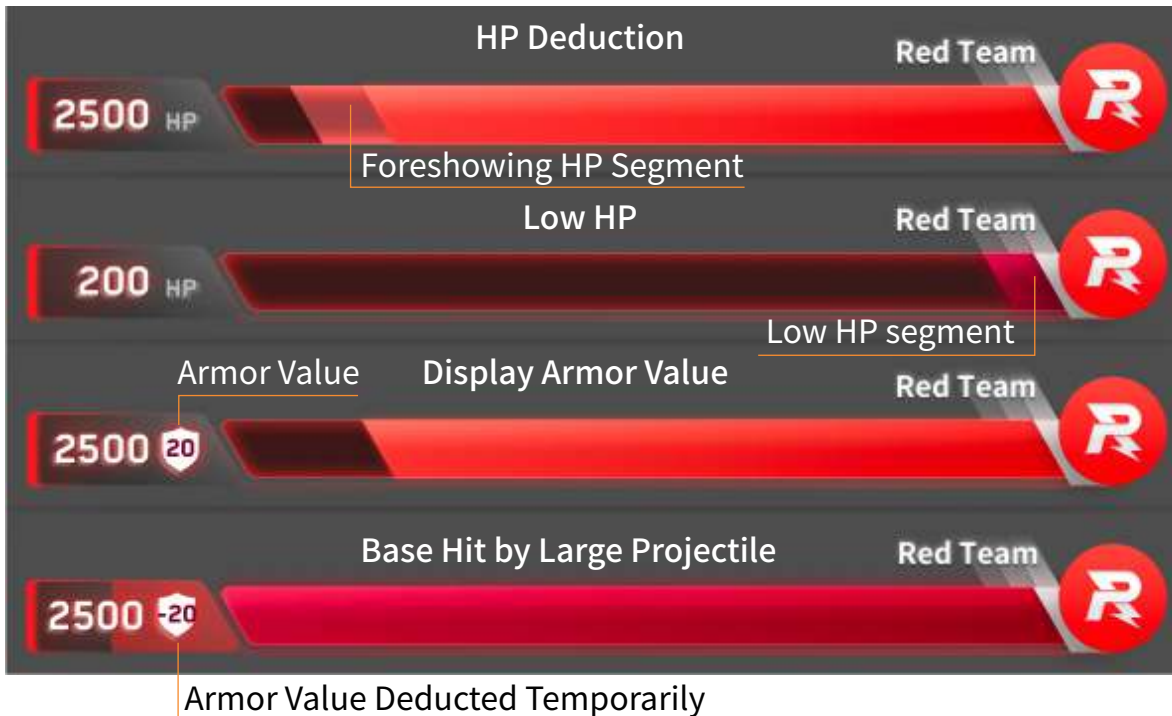
When the Base is frequently attacked in a short period of time or suffers a critical attack, a foreshowing HP segment will appear to indicate the extent of HP deduction.

Low HP　　Red Team

200 HP

Low HP segment

When the Base's HP is lower than 20%, the remaining HP segment will be dimmed, flashing at a breathing rate.

Armor Value　　**Display Armor Value**　　Red Team

2500 20

The current armor value is displayed on the shield icon. A team's Base Armor Value will decrease as when robots are defeated and its Base is hit by a Large Projectile.

Base Hit by Large Projectile　　Red Team

2500 -20

Armor Value Deducted Temporarily

When the enemy's Aerial Robot successfully hits the Base with a Large Projectile, the Base Armor Value will be temporarily deducted, with the HP Bar dimmed, a armor-breaking icon and remaining HP diplayed on the panel.

Invincible　　Red Team

3000 HP

If no robot is defeated or ejected in the Automatic Movement Phase 1, the Base will be invincible when entering the Manual Operation Phase. During Automatic Movement Phase 2, the Base will be invincible. (**for junior/senior category**)

User Interface - Main Interface

2. Description

2) Score Board

Score Countdown Match number

The score board displays the match number, countdown and score of the current game. In the last 10 seconds of the match, the countdown bar will turn red and flash.

10 seconds before entering the Automatic Movement Phase 2, the countdown number will become larger and yellow, and after the 10-second countdown ends, it will return to the normal digital state（**For junior/senior category**）

3) Robot Status on the Top

Numbering Profile   HP Bar

The profile display the robot type and status

HP Bar: The HP Bar indicates the current remaining HP, as well as the upper limit of the robot's HP.

Revived after defeat

Ejected

Invincible after revival

Disconnected

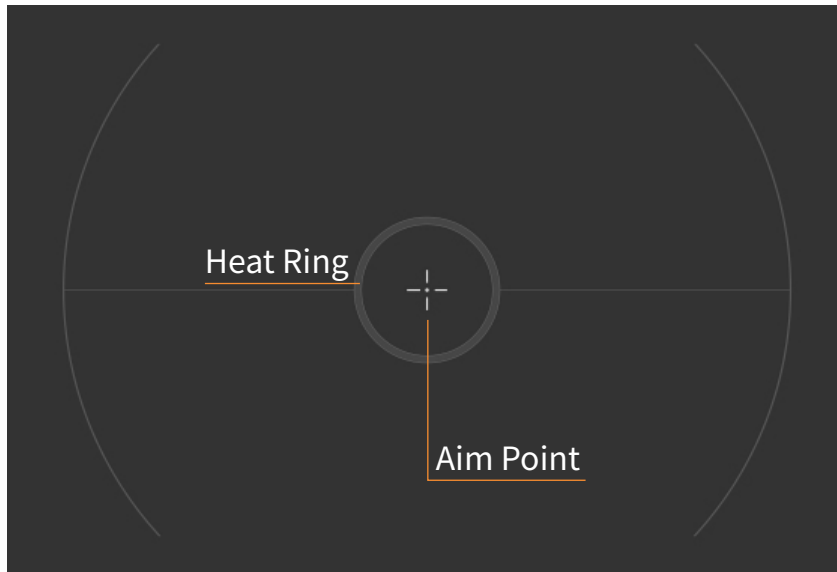Having Activate the Power Rune

Not logged in
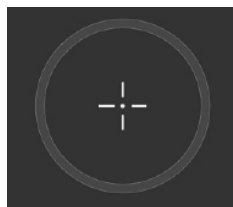
2. Description

4) Shooting-Assistance Zone

a. Aim Point

Shooting Assistance Zone consists of an aim point and a heat ring. The upper limit of the robot's barrel heat is set as Q0. Whenever the barrel detects that a projectile is launched, the heat ring will indicate a certain amount of heat increase. When the real-time heat Q1 reaches the limit Q0, the heat limit will be overrun, so the system will suspend the robot from launching projectiles within a certain period of time.

Note: Users can set and adjust the position of the aim point on the RoboMaster APP. The system will record the new position, so that RoboMaster Champion can read the updated aim point when the robot is connected to the system.
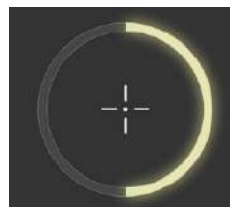
b. Barrel Heat Status

Empty	Normal	Yellow	Red	Overheat
$Q1=0$	$0<Q1<1/2Q0$	$1/2Q0<Q1<3/4Q0$	$3/4Q0<Q1<Q0$	$Q1>=Q0$

2. Description

5) My Robot

Projectile Allowance Buff


```
50
200 / 200
400
2
```

Profile Launching Mechanism's Durability Numbering HP

```
50
200 / 200
400
2
```

6) Robot Module Status

Robots Server Battery Wi-Fi

Module Status Indicator Module Name

Module without scale (robot, client)

Abnormal Normal

Module with scales (battery, Wi-Fi)

Full 75% 50% 25%

05
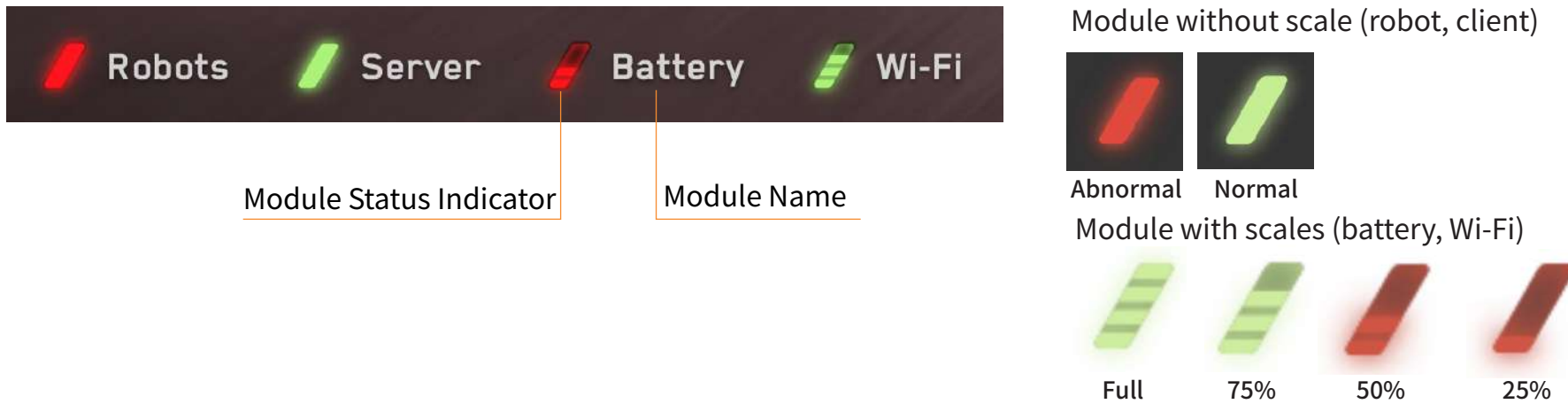
2. Description

7) Flutter Text

a. Neutral System Information (blue and white background)
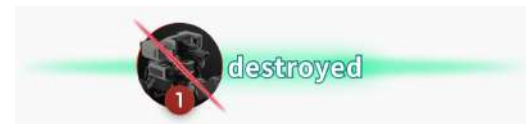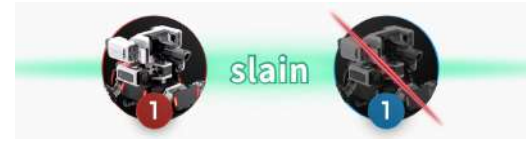

b. Favorable Information (green background)

c. Unfavorable Information (red background)

8) Marquee Text Zone

Robot Defeat Information [Profile of the defeated robot] + "defeated"

The flutter text mainly indicates information of robot defeat and battlefiled components.

e.g. Our/enemy's robot defeated
       Our/enemy's Power Rune activated
       Our Base is under attack
        30/10 seconds to enter the Automatic Movement Phase 2, get ready!
(for junior/senior category)

Categorize information by font color

Neutral information - white

Favorable information - green

Unfavorable information - red

The marquee text mainly indicates the acquisition of buffs of both teams, including HP gain, armor value gain and projectile allowance gain.

e.g. Our/enemy receives HP Gain
       Our/enemy breaks the armor
       Obtains/automatically receives 25 points of projectile allowance

2. Description

9) Mechanical Arm

a. Use the space key and up/down/left/right direction keys to control the posture of the mechanical arm. When the posture exceeds the limit in a certain direction, the corresponding direction keys will become red.

b. The small panel on the left displays the real-time posture information of the mechanical arm. Users can intuitively view the limit posture of the mechanical arm and adjust their operation in real time.

c. Control the grip/release of the gripper with the space key and left/right mouse button
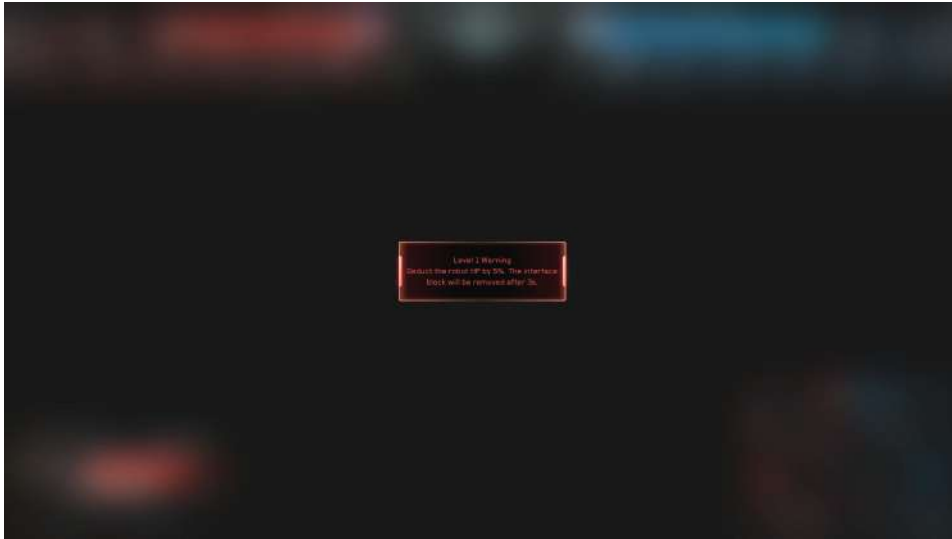
10) Custom Skills

There are [unloaded] and [loaded] skills. The loaded skills are [available]. When one skill is [released], other skills become [unavailable]. When the skill is cancelled, it enters the [cooling] state, while other skills returning to the [available] state.

2. Description

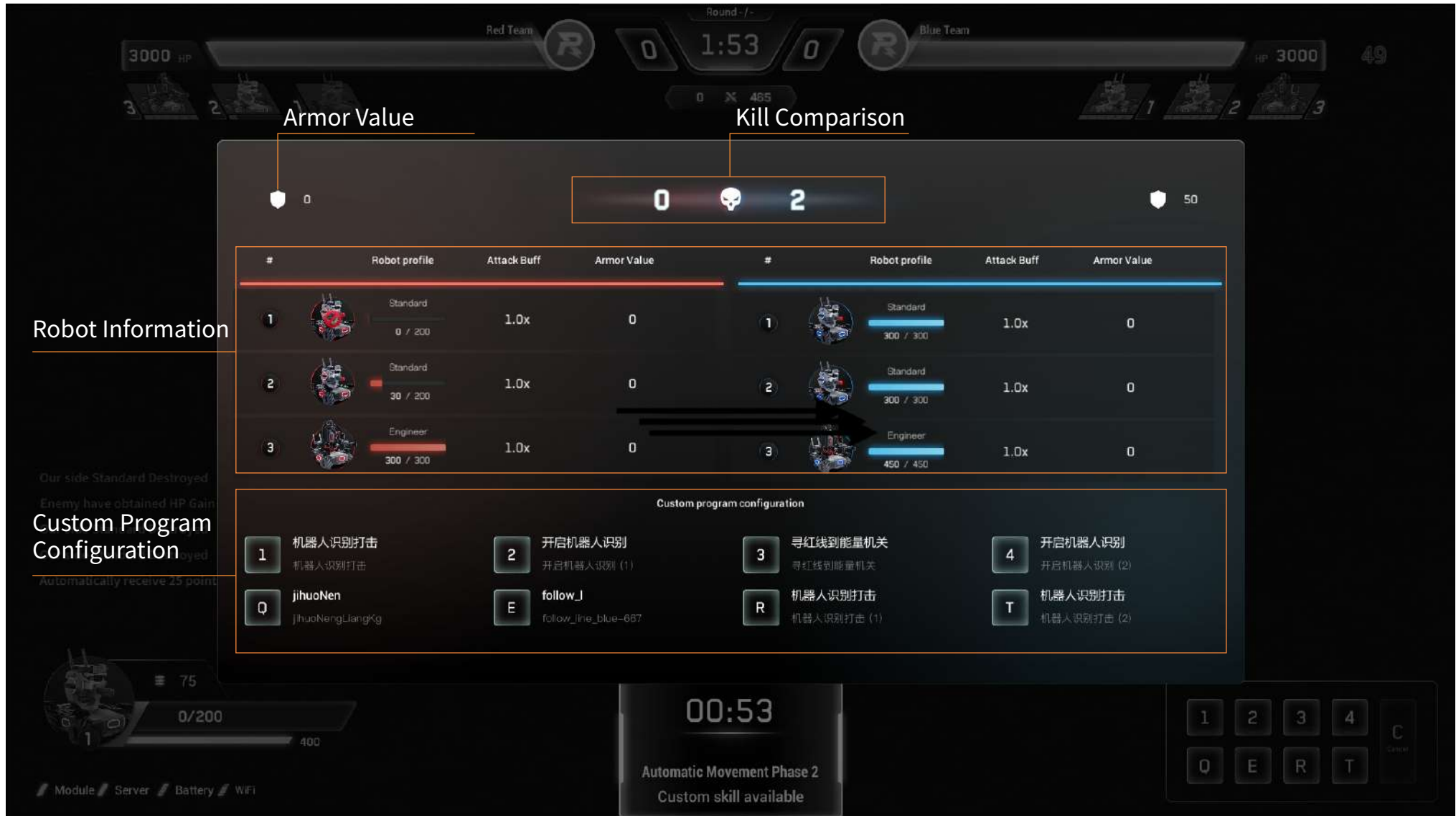## 11) Prompts in Full Screen

a. Panelty Prompt

b. Revival Prompt

c. Low HP Prompt

1. Tab panel - Press/Release the tab key to display/cancel the panel

1) Overview

User Interface - Main Interface

2) Description

a. Robot Information

Label	Description
Robot Numbering	
Robot Profile&Status	e.g. survived, revived, ejected, disconnected, not logged in
HP Information	Robot Type Current HP/ Maximum HP
Attack Buff Factor	Receive through activating the Power Rume
Armor Value	Receive through recognizing the Defense Marker 'S' in Automatic Movement Phase

b. Custom program configuration

When a program is loaded, the corresponding key will light up, with the upper line displaying the first 8 characters of the program name, and the lower line the first 20 characters of the program description.
When the program is not loaded, the corresponding key will turn gray, indicating that the skill is unavailable.

User Interface - panel

2. ~ Key panel - Press/Release the ~ key to display/cancel the panel
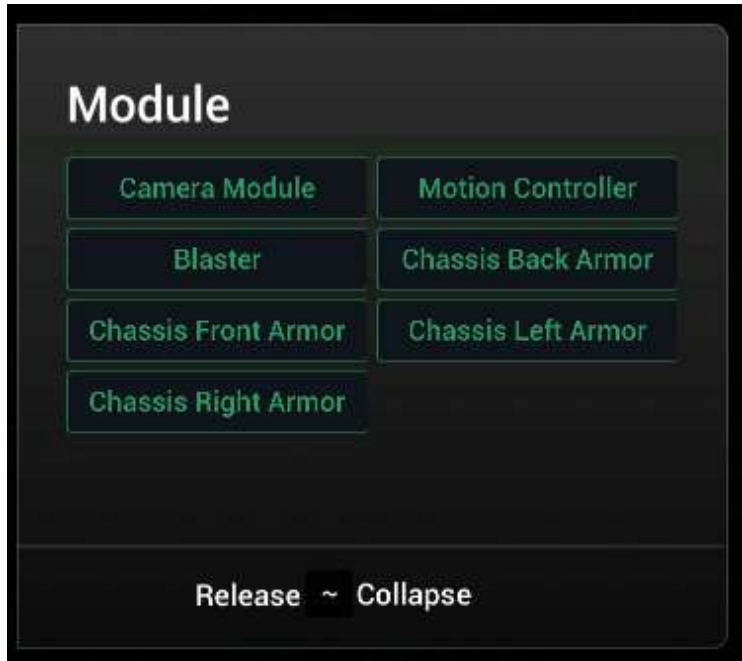
The module status panel shows the status of the camera/motion controller/ transmitter/ front, rear, left, and right chassis armors

Red/green font indicates an abnormal/normal module.
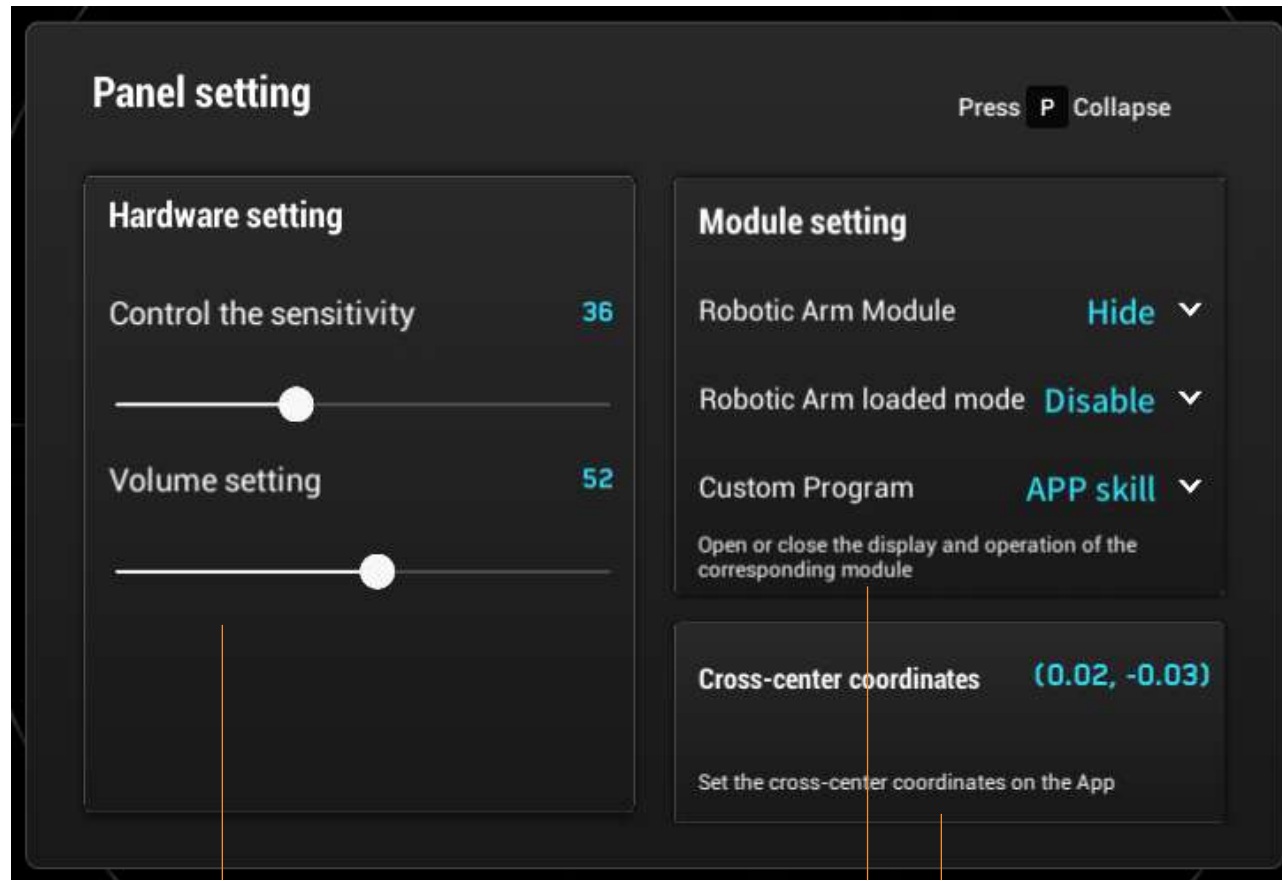
3. Settings panel - Press/Release the P key to display/cancel the panel

Panel setting   Press **P** Collapse

Hardware setting

Control the sensitivity   36

Volume setting   52

Module setting

Robotic Arm Module   Hide ⌄

Robotic Arm loaded mode   Disable ⌄

Custom Program   APP skill ⌄

Open or close the display and operation of the corresponding module

Cross-center coordinates   (0.02, -0.03)

Set the cross-center coordinates on the App

[Hardware settings] Adjust by the slider
Mouse sensitivity and headset volume

[Module settings] Enable or disable the display and operation of the mechanical arm and its loading mode
Custom Skills: Choose to use APP/SDK skills

[Aim point coordinates] It can read the aim point coordinates set on the RoboMaster APP and make corresponding adjustments on the FPV

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1. Victory Animation

a. Victory prompt

b. Defeat prompt

c. Draw prompt

d. Abnormal termination prompt

[Result of victory and defeat] Victory prompt for the winner, and defeat prompt for the loser

[Draw] End in a draw

[Termination] The referee terminates the match and the current match is ineffective

2. Settlement panel

Winner Mark   Match Number   Duration Score   School Name + Team Name + School Badge

Red Team   **1**   Round - / -   **0**   Blue Team

Round Duration

5:00

2650   **HP**   2380
Base HP

1220   ✕   845
Total Damage

340   **HP**   570
Total HP

2   💀   3
Kill Num

0   ✡   0
Rune Num

1   🛡   0
Projectile Hit

0   60

40   60

300   450

0/200

Remaining HP and HP Bar   Data Comparison