



Prize Copter

Operation Manual



Contents

Product Introduction	1
1.Gameplay	2
Cips play Instructions	
2. Parameter setting	2
1.1 BillRew	2
1.2 SysSet	2
1.3 Factory Set	2
1.4 Machine Test	3
1.5 System Info	3
3. Trouble shooting	4
4. Software update	5
5. Instructions of Motherboard Connections	6
Claw Play Instructions	
6. Instructions of Motherboard Connections	7
Instructions of Motherboard Connections	8
Instructions of Motherboard Connections	9
7. Parameter setting	10
A:Language	10
B:Accounting	11
C:Basic setting	11
D:Game modes	11
E:Claw power setting	12
F:Gantry Setting	12
G: Switch/Sensor test	12
H:Factory test	12
I: Data clear	12
J:Machine info	12
K:Reset	12
8.Adjustment for Prize Sensor	13
9. Error judgment and troubleshooting	14
Error judgment and troubleshooting	15
Error judgment and troubleshooting	16
10. Machine code errors notes	17
11. Safety Notice	18
Safety Notice	19
12. Installation Steps	20
Installation Steps	21
Installation Steps	22
Installation Steps	23
Installation Steps	24
13. Contact information	25

Product Introduction

1. Product name

Prize Copter

2. Product introduction and features

- A. Drainage of explosives, explode the market
- B. Innovative ideas, far-sighted
- C. Multi-party supply, high quality and Wumart
- D. Ultra-low threshold, higher return
- E. High-quality products, leading the industry

3. Machine specifications

Machine size: L2170*W1390*H2430 mm (length, width and height)

Machine power: 1000W at standby,1200W at work

Machine:Equipped with1 3-inch claws and1 5-inch claws

Equipped with 2 clip positions, 30 clips per turn table

Glass: Use tempered glass.

4. Application Environment

The software of this product runs on the company's self-developed motherboard and is used in major indoor business districts or crowded entertainment venues.

Game play

1. After the user inserts a coin, the machine starts running.
 2. During the game time, the player waits for the right moment and presses the game button. If the clamp opens, they can get a gift.
 3. Move the joystick forward. During the game time, the player waits for the right moment and presses the game button. If the claw grabs the doll and returns to its original position, they can get a gift.
-

Parameter setting

Press the setting button in standby mode to enter the menu, and the screen display is as follows:

BillRew
SysSet
FactorySet
MachineTest
SysInfo
Exit

After entering the menu options, press the up and down keys on the keypad to switch between the options and parameters that need to be modified.

1. BillRew

Coins: Record the number of coins inserted by players.

Games: Record the number of times players play the game.

Gifts: Number of gift wonned

2. SysSet

Game Time: Duration of each game, in seconds. Range: 10~60, default: 60 seconds.

Coin Set: Number of coins required per game. Range: 1~9, default: 1 coin.

Probability A: Set clips how many plays to win a prize. Range: 1~200, default: 5 games.

Probability B: Set clips how many plays to win a prize. Range: 1~200, default: 5 games.

Adjust Sys: Used to calibrate the positions of the turntable and the clips

Clear Bill: Clear all accounting datas of the machine.

Pass Word: Change the password for accessing advanced settings. "Remember" the new password after change.

3.Factory Set (The device has been set and tested before leaving the factory. It is recommended not to modify the following parameters unless in special cases)

Idle Music: Automatically play music in demo play. Default: On.

Shake Alarm: Sound an alarm when the machine is shaken. Default: On.

Free Game: Allow gameplay without inserting coins. Default: Off.

Mode: Set Prize-out mode.

Alone: All clamps with the same setting of prize-out ratio- will share the same prize calculation pools, and clamps with different setting of prize-out ratio will use different prize calculation pools.

Share: All clamps share one prize pool, regardless of whether prize-out ratios are the same

LedId: Adjust the flashing light card number.

Win Lamp: Adjust the duration time of the flashing light after winning a prize.

Range: 1~30 (seconds), default: 5 seconds.

DropLoc: The position where the arrow reaches the bottom when pressed down.

Wait Time: Adjust the time for the arrow to stay at the lowest point after falling.

Range: 100~1000, default: 500.

Help Width: The smaller the set value, the closer the arrow is to the clip, making it easier to open the clip;

The larger the set value, the farther the arrow is from the claw, making it harder to open the claw; Range: 0~10, default: 4.

R/Min: Adjust the rotation speed of the turntable. Range: 2.00~24.00, default: 4.000.

Turntable Time: Adjust the start and stop time of the turntable rotation. Default: starts for 10 minutes and stops for 10 minutes.

Language: Switch between Chinese and English language interfaces.

Factory Set: Restore factory default settings.

4.Machine Test

Clamp Test: Test whether the turntable function is normal.

Arrow Test: Test whether the arrow falls normally.

Code Table Test: Test whether the coin count meter and prize count meter function normally

Music Test: Test whether each lighting mode functions normally.

5. SysInfo

Name: Mini Clip

Version: xxx software version

Date: Software update date

Trouble shooting

Number	Fault name	Position	Phenomenon	Number	Solution
A	Arrow descent error	Crane	The arrow motor cannot move left or right.	A1	Check if the left and right motor wires are loose; unplug and re-plug connectors to check for poor contact.
					Check if the arrow motor is damaged; replace it if damaged.
					Check if the output of the power box is normal.
					Exchange the pc boards
			The arrow motor can move but stops shortly afterward.	A2	Check if the arrow reset optical sensor is properly plugged in; unplug and re-plug the connector to check for poor contact.
					Check if the baffle is blocked and if it normally blocks the arrow reset optical sensor.
					Replace the arrow reset optical sensor to check if it is damaged.
					Exchange the pc boards.
B	Clamp turntable fault	Crane	The turntable doesn't move at all.	B1	Check if the turntable stepper motor wires are loose; unplug and re-plug the connectors to check for poor contact.
					Check if the turntable stepper motor is damaged; replace it if damaged.
					Check if the output of the power box is normal.
					Exchange the pc boards.
			The turntable keeps shaking in place and does not rotate.	B2	Check if the four wires of the turntable stepper motor are loose; unplug and re-plug the connectors to check for poor contact.
					Check if any wire in the circuit is disconnected.
					Check if the motor is damaged; replace it if damaged.
					Swap the main boards.
			The turntable stops shortly after being selected upon startup and	B3	Check if the turntable reset optical sensor is properly plugged in; unplug and re-plug the connector to check for poor contact.
					Check if the baffle normally blocks the

			reports a fault.		turntable reset optical sensor.
					Replace the turntable reset optical sensor to check if it is damaged
					Exchange the main boards.
C	Do not shake the machine	Anti-shake	Continuous anti-shake alarm	C1	The anti-sway device is blocked by an object, causing it to trigger continuously.
D	Coin acceptor error	Coin acceptor	Unable to coin normally	D1	Toggle the coin acceptor's DIP switches upward.
E	Please take the gift	Optical sensor	Optical sensor is blocked	E1	Remove the blocking object.

Software upgrade

Upgrade method: Turn off the device, insert the SD card into the SD card slot on the main board; turn on the device, the indicator light on the main board will flash, and when it stops flashing, the upgrade is complete; turn off the device, remove the SD card; turn on the device, and it can be used for normal gameplay.

To check if the upgrade is successful, press the function key to enter the menu / system information / version (xxx is the software version).

Instructions of Motherboard Interfaces

P6 Turntable stepper motor

1	OPE1	Red wire of the stepper motor
2	OPE2	Blue wire of the stepper motor
3	OPE3	Green wire of the stepper motor
4	OPE4	Black wire of the stepper motor

P2 Power input

1	+12V	Connect to the power box+12V
2	GND	Connect to the power box GND
3	+24V	Connect to the power box+12V

P13 Arrow motor

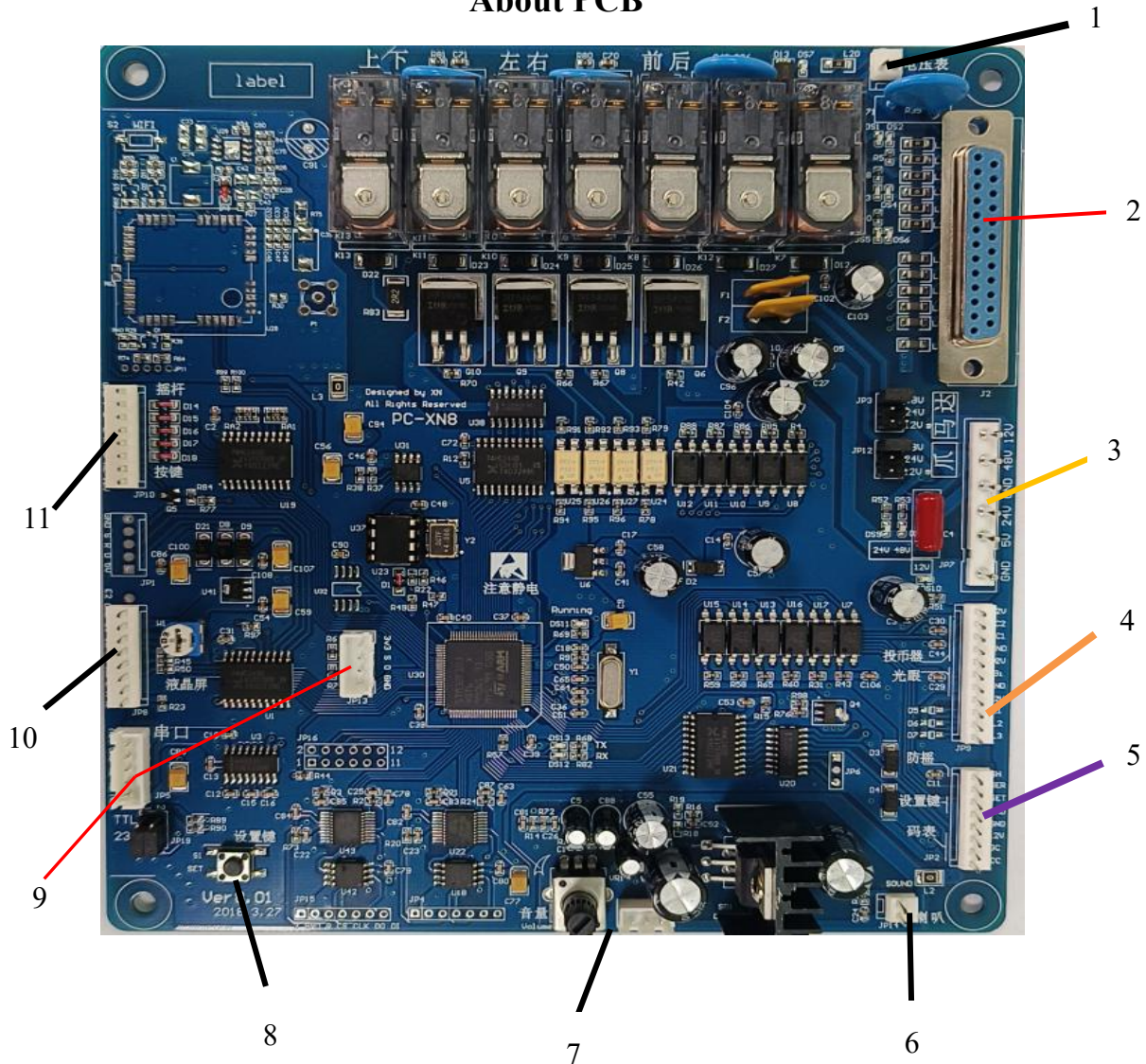
1	MT1	Negative pole of arrow motor
2	CC	
3	+VA	Positive pole of arrow motor
4	+12V	
5	+24V	

P15 Input&Output

1	IN27	Service button	2	IN28	Sensor for arrow motor reset
3	IN25	Keypad menu	4	IN26	Confirm key
5	IN23	Left key on the keypad	6	IN24	Keypad right key / restock button (refill gift)
7	IN21	Up key on the keypad	8	IN22	Down key on the keypad
9	IN17		10	IN18	
11	IN15	Shake alarm	12	IN16	
13	IN13		14	IN14	reset photoelectric sensor of turntable
15	IN11	Coin button	16	IN12	photoelectric sensor at gift outlet
17	MOSI2	Connect to LCD RW	18	MISO 2	Connect to LCD REST
19	SCK2	Connect to LCD EN	20	NSS2	Connect to LCD RS
21	MOSI1		22	OP1	
23	OP2	Prize count meter	24	OP3	
25	OP4	Prize count light card	26	OP5	
27	OP6		28	OP7	Coin Count meter
29	+12V		30	+12V	
31	+12V		32	+5V	
33	GND		34	GND	
35	GND	Volume pin 1	36	GND	
37	AUO	Volume pin 3	38	AUI	Volume pin 2
39	SP-	Speaker negative pole	40	SP+	Speaker positive pole

Instructions for Claw Machine Mainboard

About PCB



1: Voltage meter

2: Gantry port

3: Power connection

4: Coin acceptor/Sensor

5: Setting/Coin count

6: Speaker

7: Volume

8: Setting / button

9: Serial ports 1/2

10: LCD display

11: Joystick / Buttons

About pcb wire connections

JP17: Voltage meter 2P

1	2
+	GND

J2: Gantry Connections 25P

1	Forward/back motor-	14	Forward/back motor +
2	Left/ right motor-	15	Left/ right motor +
3	Up/down motor-	16	Up/down motor +
4	Claw+	17	Claw-
5	Rear positioning switch	18	GND
6	Front positioning switch	19	GND
7	Right positioning switch	20	GND
8	Left positioning switch	21	GND
9	Upside positioning switch	22	blank
10	Downside positioning switch	23	blank
11	blank	24	blank
12	blank	25	blank
13	blank		

JP7: PCB Power Connections 6P

1	2	3	4	5	6
12V	48V	48V—	24V	5V	GND

JP9:Coin acceptor /Sensor 11P

1	2	3	4	5	6	7	8	9	10	11
12V	Coin 1	Coin 2	GND	Sensor 12V	Sensor Signal	Sensor GND	Lights 12V	Lights signal 1	Lights Signal 2	Lights Signal 3

JP2: Setting/ Coin Count 8P

1	2	3	4	5	6	7	8
Anti-stealin g signal	Service	Set	Anti-stealin g GND	Service/Set GND	Coin Count 12V	Prize-out count signal	Coin-in count signal

JP14: Speaker 2P

1	2
+	GND

JP 8:LCD display 8P

1	2	3	4	5	6	7	8
GND	5V	V _o	R _s	R _w	E	A	K

JP 10: Joystick / buttons 8P

1	2	3	4	5	6	7	8
Joystick/Button GND	Joystick forward	Joystick backward	Joystick Left	Joystick Right	Button +	Button lights signal	Button lights 12V

Function setting

***1.** Hold onto Set button to enter Menu when machine is on

A:Language

B:Accounting

C:Basic setting

D:Game modes

E:Claw power setting

F:Gantry Setting

G: Switch/Sensor test

H:Factory test

I: Data clear

J:Machine info

K:Reset

Exit Mode

Note: (function K) you can use this feature when you encounter a problem that cannot be solved, but once you use the content you set up earlier, you will not be able to recover yourself!

Joystick [up] [down] select the item you want to set and press the fetch key to enter the selected item.

2. Language

Rocker [left] [right] adjust language.

Grab button to return

3. Accounting

Audit
COIN IN:
PRIZE OUT:
PO BANK:

4. C: Basic Setting

C1	BG Music
C2	Game Time
C3	n coins n plays
C4	n Plays 1Plus
C5	Auto Start
C6	FreeMode
C7	Plays Keep
C8	Star Pos
C9	Prize Pos
C10	Sensor
C11	SKY CATCH
C12	Down Release
C13	Protocol
	BACK

C1 choose to turn background music on or off.

C2 sets the time limit for each game.

C3 sets a few coins and can play several games.

C4 set one game for every number of games played.

C5 the claw automatically moves to the middle of the machine for each sufficient number of games, and you can choose to turn it on or off.

C6 can choose to turn it on or off. After choosing to turn it on, the words "free" will be displayed, so you don't have to put in tokens.

When C7 shuts down and restarts the machine, it retains the number of currencies in which the previous game was restored, and you can choose to turn it on or off.

C8 choose whether the starting position of the claw is in the front or behind.

C9 choose whether the gift mouth is in the front or the back.

C10 falling object detects the level of the naked eye, which can be normally open or closed.

When C11 is turned on, press the button to catch objects in the air.

C12 starts the acquired car and comes back to drop the claws in place.

C13 docking payment system

5.D: Game mode

D1	Prize Mode
D2	Payout Set
	BACK

D1 chooses the winning mode, and there are 5 options:

A, weak claw force mode (the claw grip is also very weak when the game reaches the winning probability).

b. Strong claw force mode (when the game reaches the probability of winning the prize, the grip of the claw becomes stronger at the same time, regardless of whether it is awarded or not, it becomes weaker next time).

C, probability cumulative fixed mode (the grip of the claw becomes stronger when the game reaches the winning probability until the prize is awarded).

d. Probability cumulative random mode (the game reaches the probability of winning the prize at random).

E, selling mode (can grab items with a set strong grip every time).

D2 sets how many games to play and can give a prize.

6.E:Claw power setting

E1 STRONG Catch

E2 WEAK Catch

E3 S Catch TIME

E4 Top W Catch

BACK

E1 voltage (grip) when setting strong claw force.

E2 sets the voltage (grip) of weak claw force.

E3 sets the transition time from strong voltage (grip) to weak voltage (grip).

E4 set the claw to the top to turn the weak claw force on

7.F:Gantry motor speed

F1 F&B SPEED

F2 L&R SPEED

F3 U&D SPEED

F4 Cable Length

BACK

F1 sets the speed at which the claws move back and forth, with a scale of 1 to 10.

F2 sets the speed at which the claws move left and right, with a scale of 1 to 10.

F3 sets the speed at which the claws move up and down, with a scale of 1 to 10.

F4 sets the adjustment of the length of the claw

8.G:Hardware-Sensor /Switch test

9.H: Factory test

10. The option of factory aging test, after entering the factory test, casually shake the joystick, that is, the machine.

11.Start the test automatically and press the start button to exit the test.

12.I: Data clear

11.J:Machine info

This category displays machine-related information.

12.K:Reset

After entering, you can choose whether you need to restore the factory settings.

Exit mode

Press the start button to exit the settings directly and return to the game interface.

Adjustment for Prize Sensor



Adjust the sensing distance
[strong] [weak] by means
of a knob.

Switch state: the normal light
is off, the induction gift light
is on.

Adjustment method: first rotate
counterclockwise to the light off,
and then clockwise to the light.

Error judgment and troubleshooting

Catagory	Errors	Inspection and solution
Claw move down	The claw will not get off the hook after pressing the [start] button.Wait until the countdown to the game time is over before automatically clawing.	1. Check to see if the start button is working. 2. Check whether the [start] button wiring is loose or off. 3. Check whether the motherboard connection [start] button plug is loose or not plugged in properly.
	Start button is normal , but claws donot go down	1. Check whether the wire end of the upper and lower motor falls off. 2. Check whether the upper and lower motors fail or if the gear closes properly. 3. Check to see if the winding rope is normal. 4. Check whether the crane connector of the motherboard is loose or not plugged in properly. 5. The failure follows the motherboard.
	After pressing the [start] button, the claw will not go down or a little bit will grab back into position.	1. Check that the reel is entangled. 2. Check whether the stop fretting is easy to touch or break down.
	After pressing the [start] button, grab the pick-up line and return to position before the paw reaches the accumulation point.	1. Check whether the winding rope is too short? 2. Check that the reel is entangled. 3. Check whether the stop fretting is easy to touch or break down.
Take prize	The claw grabs the object and goes back to the exit without opening.	1. Check whether the post-stop fretting or left-stopping switch is malfunctioning or whether the wire end has fallen off. 1.Check whether the crane connector of the motherboard is loose or not plugged in properly.

Gantry	After the claws grab the object, the claws will return to the position without rising the crane.	1. Check whether the upper stop fretting has the phenomenon of wrong touch. 2. Check whether the upper stop fretting is faulty or if the end of the line falls off. 3. The failure follows the motherboard.
	The claws do not rise after grabbing the object, and the crane does not move.	1. Check to see if the upper and lower motors fail or the wire ends fall off. . 2. Whether the up-stop fretting is faulty or whether the end of the line falls off. 3. The failure follows the motherboard.
	The joystick cannot operate the gantry forward or backward.	1. Whether the joystick is malfunctioning or whether the end of the line falls off before and after the joystick. 2. Check that the joystick connector on the motherboard is loose or not plugged in. 3. Check whether the switch of the gantry to stop in front and at rear is malfunctioning or stuck. 4. Check whether the front and rear moving motor fails or the wire ends fall off, or the gears cannot be closed. 5. Check whether the gantry connector of the motherboard is loose or not plugged in properly. 6. Whether the wiring connections between the gantry and the machine is normal to the plug.
	The joystick cannot operate the gantry left or right	1. Whether the left stop and right stop of the joystick is malfunctioning or whether the end of the line falls off. . 2. Check that the joystick connector on the motherboard is loose or not plugged in. 3. Check whether the left and right switch of the gantry is malfunctioning or stuck. 4. Check to see if the left and right moving motor fails or the wire ends fall off, or the gears cannot be closed. 5. Check whether the gantry connector of the motherboard is loose or not plugged in properly. 6. Whether the connection between the gantry wiring and the machine wiring is normal to the plug.
Claw	The claws open and cannot be closed when the claws pick up the object.	1. C2 weak claw force voltage is set too low, please adjust the claw force voltage according to the size and weight of the item.

	The claw will be closed as soon as it is turned on.	1. The claw coil may be short-circuited, please replace it in time. 2, motherboard failure.
	Claws are not closed	1. The claw coil may burn out, please replace it in time. 2.Check to see if the connecting end of the line has fallen off. 3. The failure follows the motherboard.
Insert a coin	The machine does not send out the sound effect of receiving and receiving tokens, and the display screen shows that the number of coins invested does not add up.	1. Please check whether the coin acceptor is faulty and whether the signal indicator is normal. Whether the signal cable connected to the motherboard is loose. 2.. If the above situation is normal, that is, it is possible that the motherboard is faulty, please send the motherboard back to the factory for maintenance.
	Coins can not put in	1. Please check whether the coin acceptor is faulty, the signal indicator is normal, and the signal cable connected to the motherboard is loose. 2.Please check whether the sampling token in the coin acceptor matches the token you put in. 3. Set the sensitivity of the coin acceptor and relax it a bit. 4. Please check whether that the PIN of the coin acceptor and the power supply is properly supplied to the DC12V

The machine cannot be started.

Please check first:

Is the power switch and master switch in OFF state?

Is the power plug not plugged in?

The lights of the machine are not on.

Please check first:

Is the power switch and master switch in OFF state?

Is the power plug not plugged in?

Is the connection of the light interface on the extended motherboard not connected properly?

If it is not the above problem, it may be caused by: LED lamp failure.

Handling method: replace the corresponding LED lights.

Machine code errors notes

Error code	Error details
LOCK	program lock
E2	memory error
E3	probability out of range error
E4	coin acceptor error for player 1
E5	coin acceptor error for player 2
E6	sensor error
E7	the claw reached the prize exit error.
E8	wrong starting position of claw back.
E9	switch error before switch on detection
E10	switch error after switch on detection
E11	left switch error when switch on machine
E12	right switch error when switch on machine
E13	upside switch error when switch on machine
E14	downside switch error when switch on machine

When the fault can not be eliminated, please try to reset .

Solutions to E03

1/write down the accounting datas in the menu first.

2/Go to setting menu, move down joystick to select item I, then select I2 <P.O.Bank Clear>,move joystick left and right to select Clear, press Confirm button to clear,and finally exit the menu.

Safety Notice

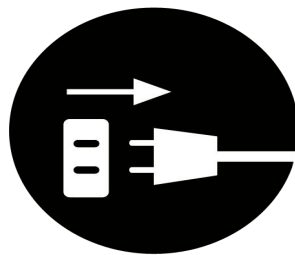
Do not unplug the power plug with wet hands, otherwise there may be a risk of electric shock



The power plug must be plugged in correctly to avoid the accumulation of dust and other dirt, and prohibit fireworks from approaching, otherwise it may cause a fire or electric shock



If there is smoke, abnormal smell or abnormal sound, please stop the operation immediately, cut off the power supply and unplug the power supply

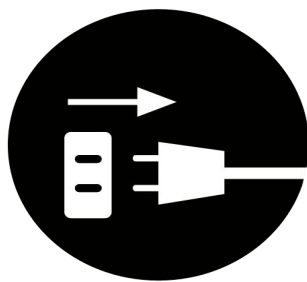


When the power cord or power plug is damaged, please stop the operation immediately and replace it in time

Except for store maintenance personnel or technicians, please do not open the rear maintenance door.

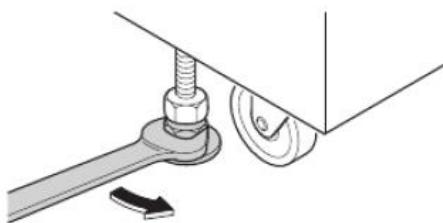
Some internal components carry high voltage

Be sure to turn off the power supply and the main power supply, and unplug the power plug before servicing the door after opening



Handling precautions

- More than 3 people must move the machine
- The machine must be handled carefully to avoid improper force or horizontal lying situation
- When moving on a flat floor, please use the rollers. Before moving, please loosen all the fixing devices to leave the ground.



Avoid crash or knock on the machine, which may damage the machine or damage the internal components of the machine

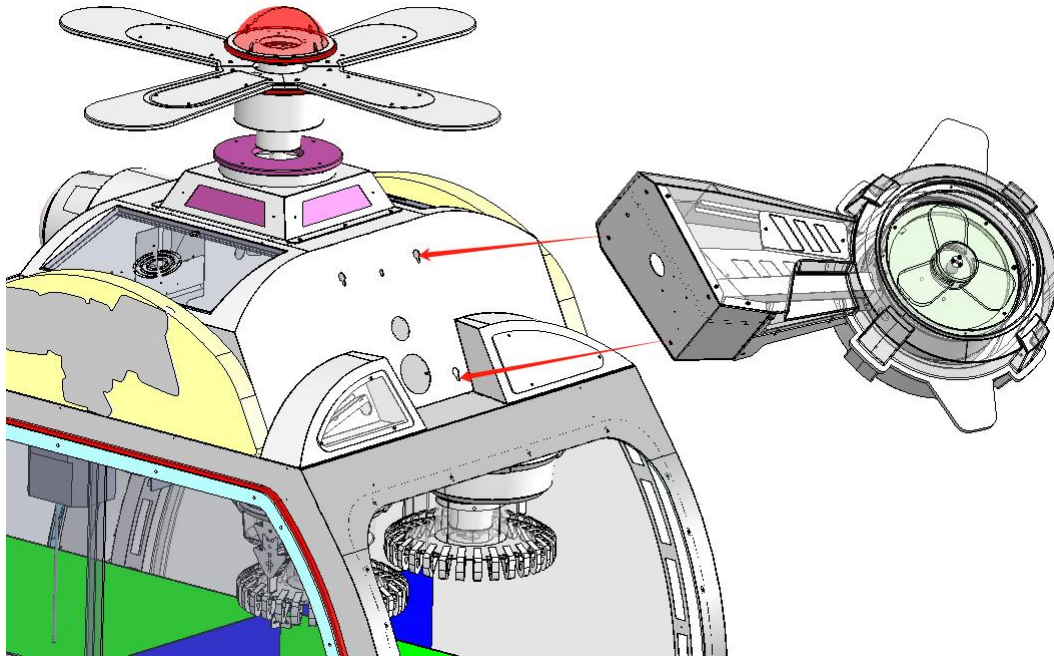
Cleaning notes:

- Inspection and cleaning must be performed more than once a month
- Do not use high-pressure cleaners and other tools to clean the machine. Once water enters the machine, it may cause electric shock or malfunction

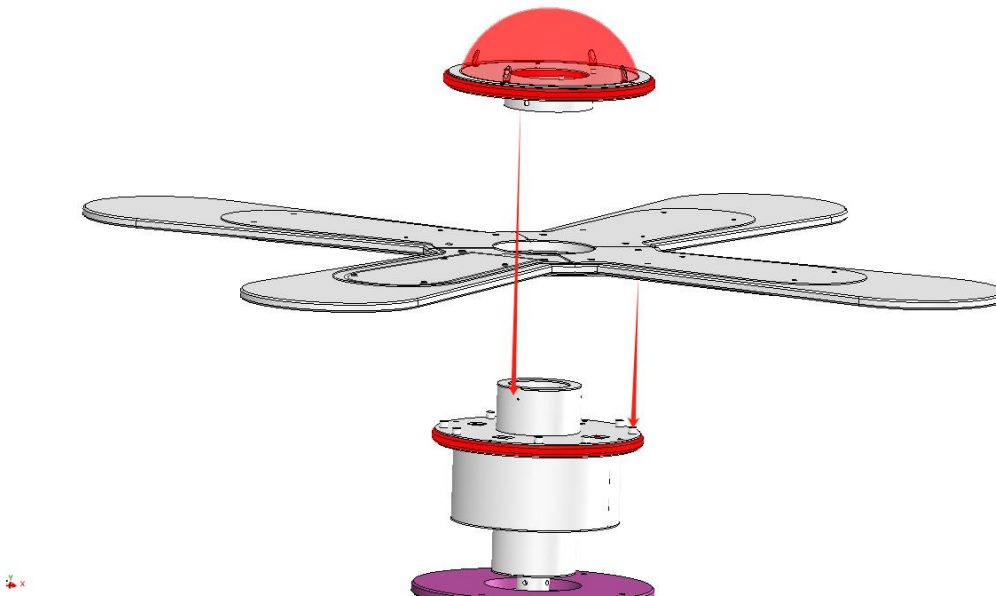
To clean the surface of the machine, please use a soft cloth dampened with a neutral detergent, and then wipe it after wringing it out.

Part 8. Installation steps instructions

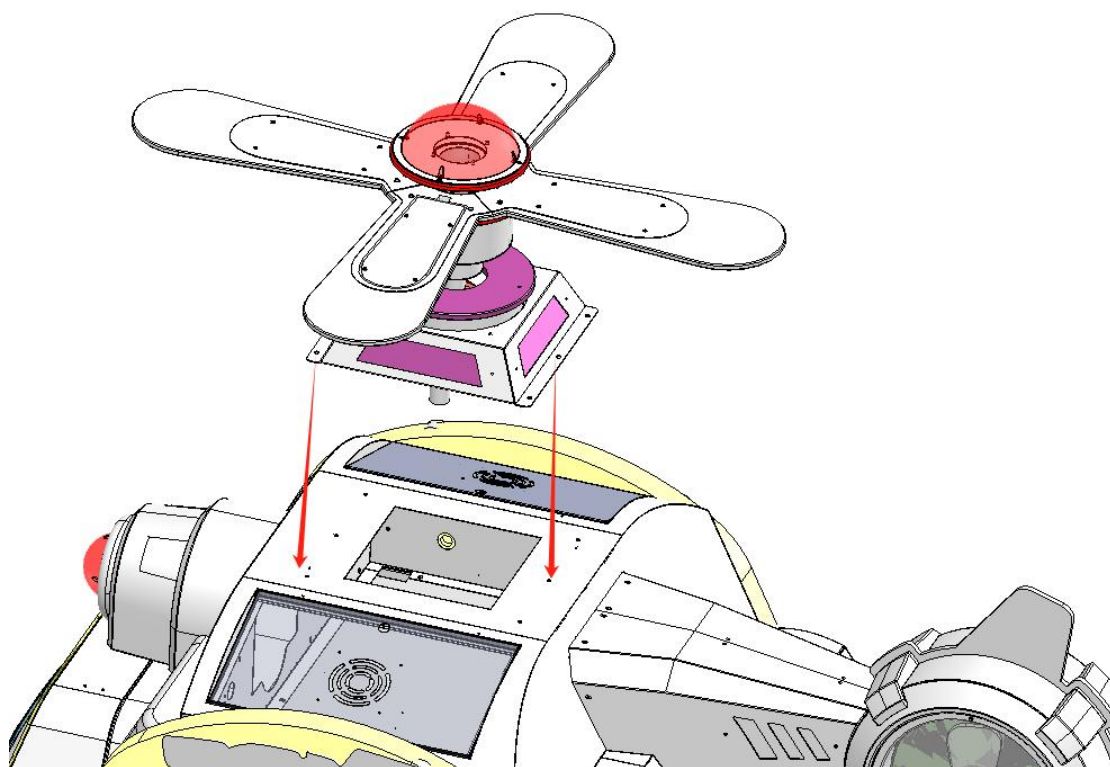
1.Installation of the rear wing: screws M6*25 (as shown in the figure below)



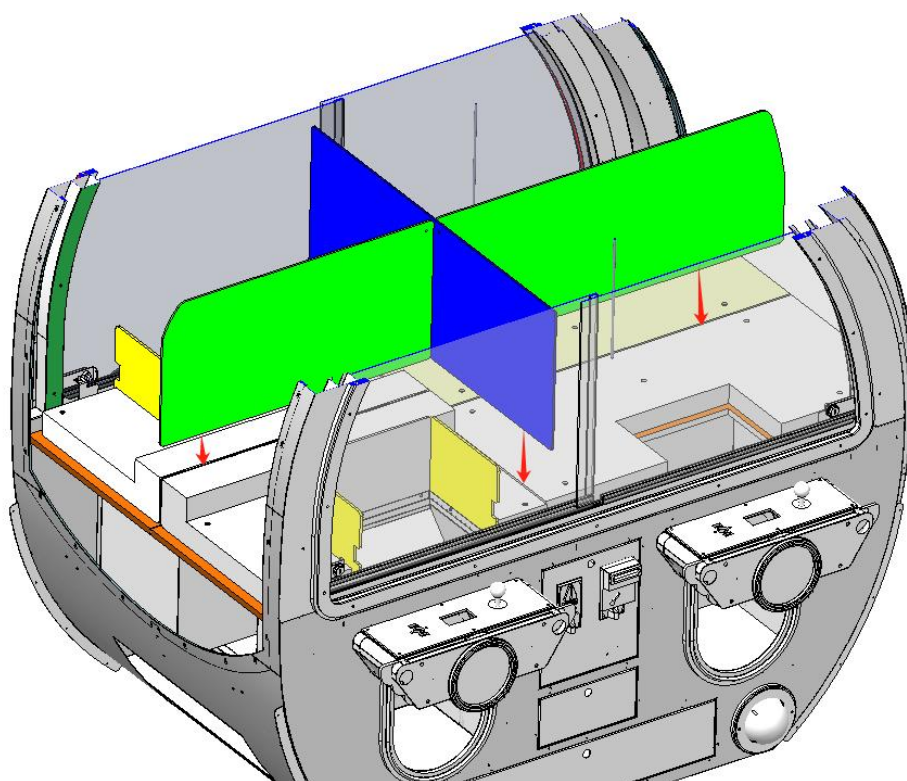
2.Installation of the blades (as shown in the figure below)

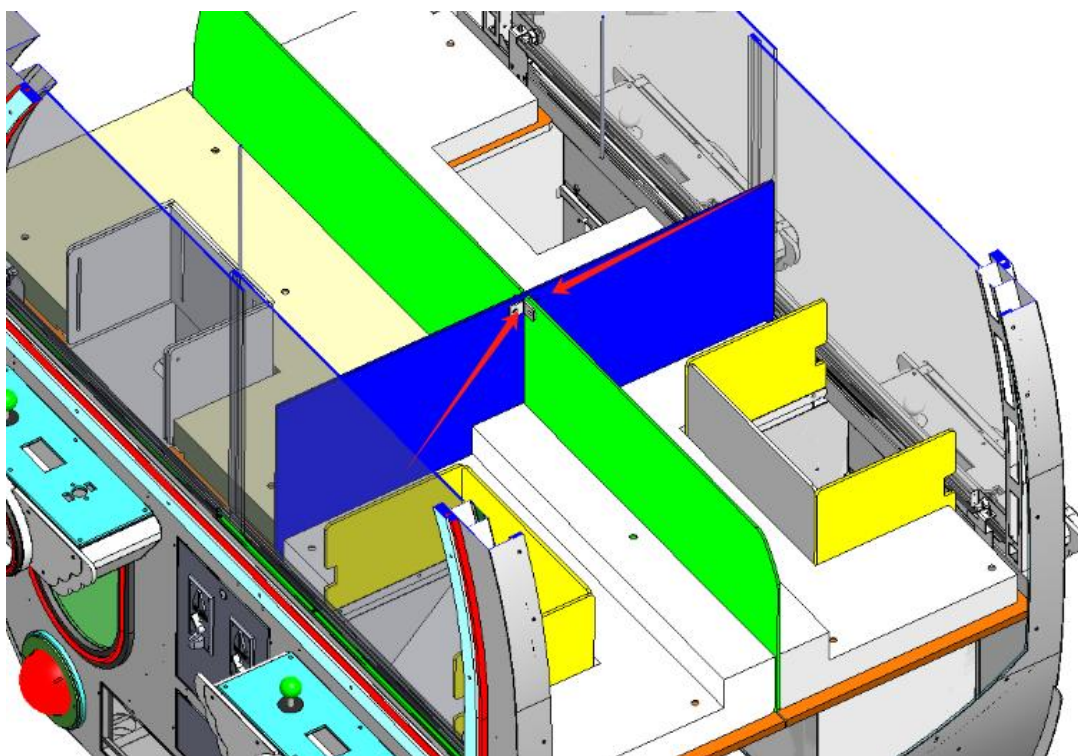


3.Overall installation of the top blades (as shown in the figure below)

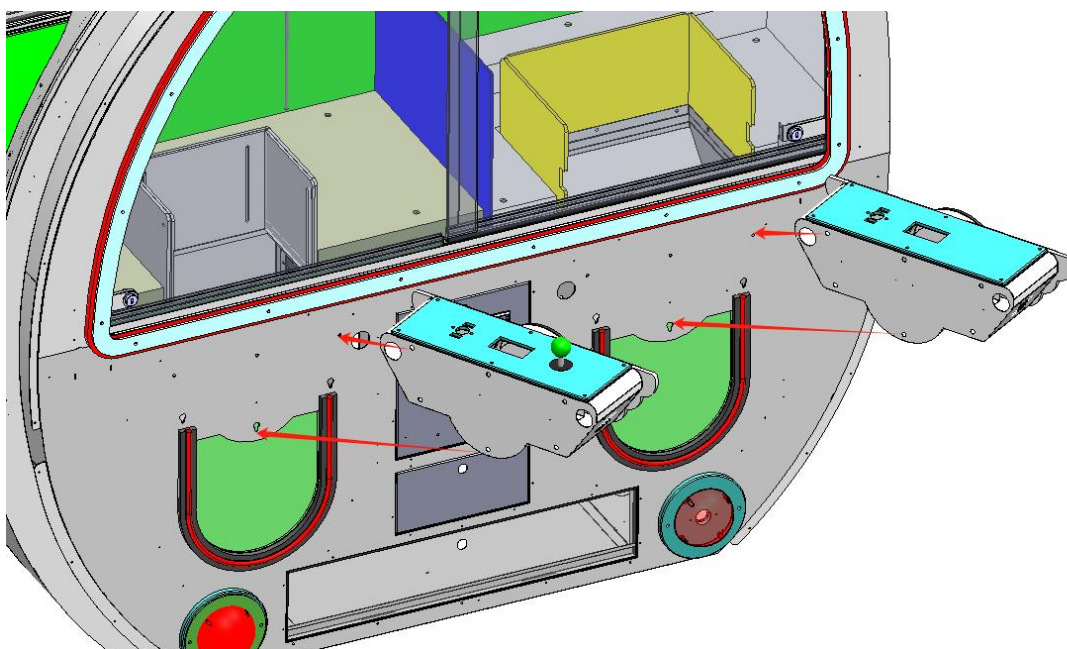


4.Installation of internal acrylic plates (as shown in the figure below)

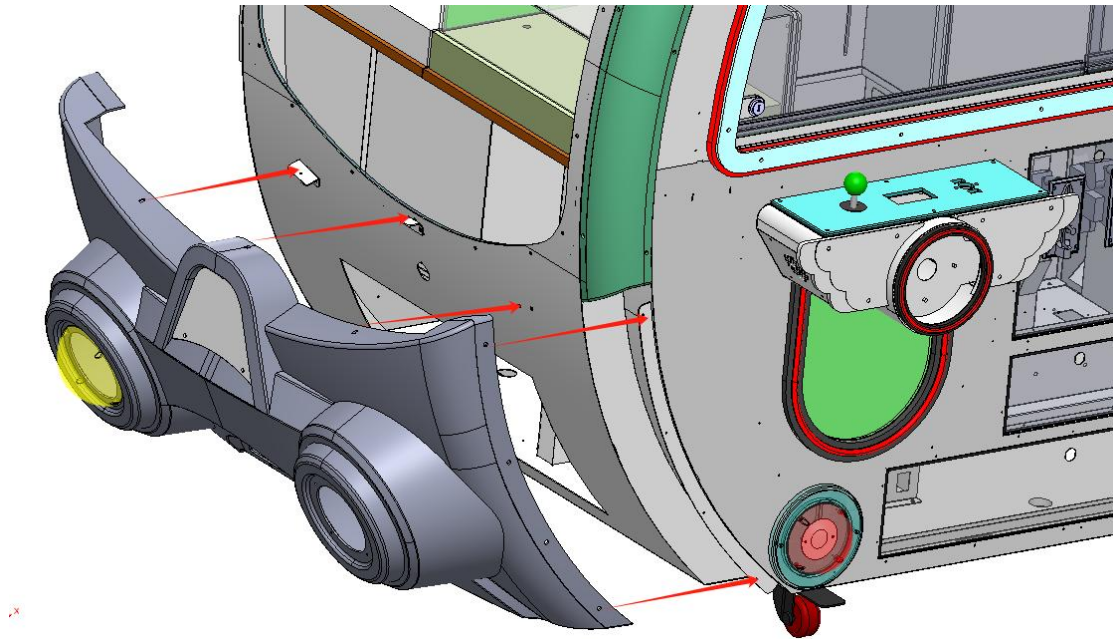




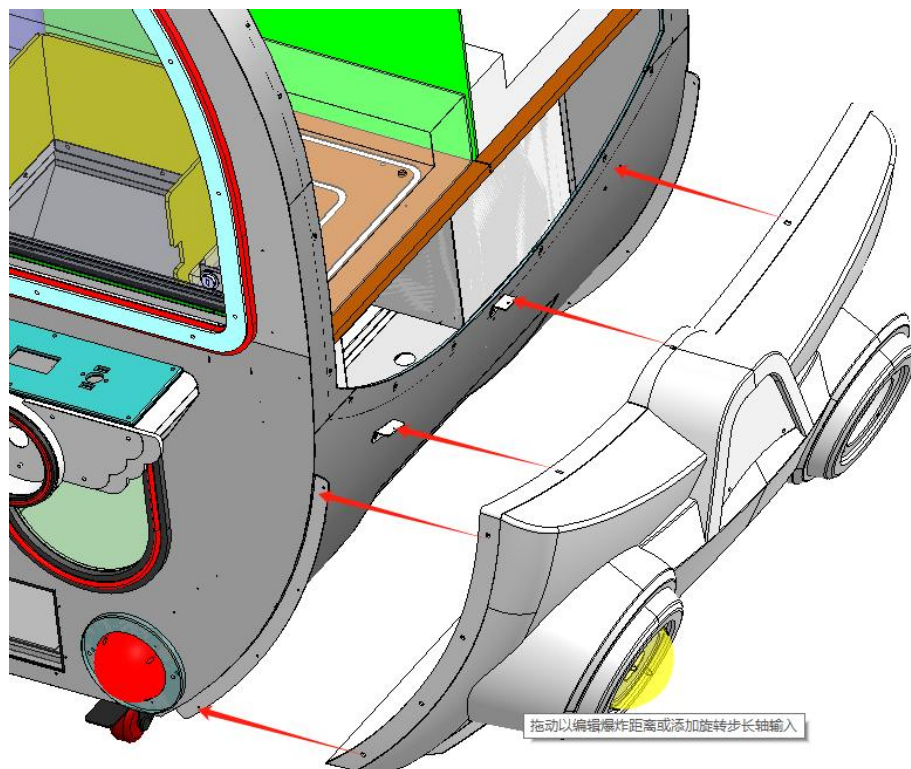
5.Install 4 console units.(connect the wires properly before fixing the screws) (as shown in the figure below)



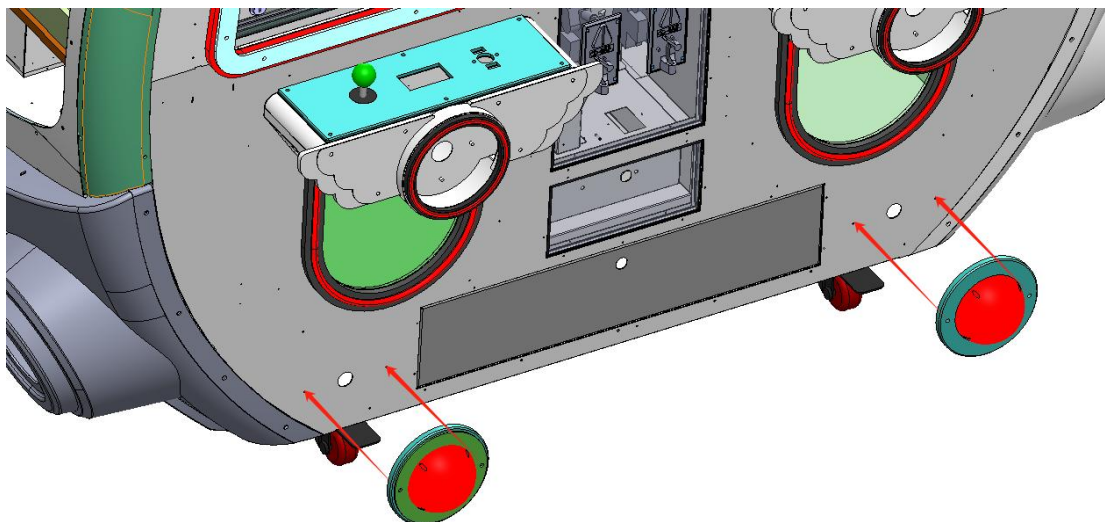
6. Big plastic on the head side (connect the wires properly before fixing the screws)
(as shown in the figure below)



7. Big plastic on the tail side (connect the wires properly before fixing the screws) (as shown in the figure below)



8. 4 bottom round lamps (connect the wires properly before fixing the screws) (as shown in the figure below)





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