

# SERVICE MANUAL



ISSUE DATE: Dec. 15, 2014



- ▶ Please read the manual carefully and keep it in mind before using this machine.
- ▶ Put this manual within touch of your reference in anytime.

# PRECAUTIONS FOR USE

The following safety precautions are given throughout this manual. They must be strictly followed to protect those who install, use or maintain this product as well as to protect players, visitors and property.

For safety reasons.

- The following suggestions should be adhered to:



## WARNING

Disregarding could result in serious injury.



## CAUTION

Disregarding could result in injury or product damage.

- The following graphic suggestions describe the types of precautions to be followed.



Indicates a care should be taken.



Forbidden.



Indicates a matter which must be performed.

- **Precautions to be followed:**

**Certain procedures require a qualified in-shop maintenance person or industry specialist. For such instructions, a qualified person must take care of the jobs.**

- Otherwise an electric shock, machine trouble, or a serious accident may result.
- Replacing the machine parts, inspecting and maintaining the machines, and troubleshooting must be assigned only to a qualified in-shop maintenance person or industry specialist. This booklet gives instructions that hazardous jobs in particular must be handled by an industry specialist. Qualified in-shop maintenance person and industry specialist are defined as follows.

### **Qualified in-shop maintenance person**

- A service staff shall have experience in operations of game machines. The staff shall be responsible for assembly, installation, inspection and maintenance of the machine.

### **Industry specialist**

- An industry specialist must be engaged in designing, manufacturing, inspecting and servicing amusement machines. He or she must have an education in electrical, electronic and mechanical engineering, and routinely maintain and repair amusement machines.

# PRECAUTIONS FOR USE

## WARNING

**Be sure to consult an industry specialist when setting up, moving or transporting this product.**

- This product should not be set up, moved or transported by any one other than an industry specialist.
- When installing this product, set the 4 leg levelers evenly on the floor and make sure that the product is installed stably in a horizontal position. Unstable installation may result in injury or accident.
- When installing this product, do not apply undue force on movable parts. Otherwise, injury and accident may result, or the product may be damaged.

**The machine for indoor usage only does not install outside.**



**Do not set the game machine up near emergency exits.**



**Protect the game machine from:**

- Rain or moisture.
- Direct sunlight.
- Direct heat from air-conditioning and heating equipment, etc..
- Hazardous flammable substances.
- Otherwise an accident or malfunction may result.



**Do not place containers holding chemicals or water on or near the game machine.**



**Do not place objects near the ventilating holes.**



**Do not bend the power cord by force or place heavy objects on it.**



**Never plug or unplug the power cord with wet hands.**



**Never unplug the game machine by pulling the power cord.**



## CAUTION

**Be sure to use indoor wiring within the specified voltage requirements. For extension cord, use the specified rating or more.**

**Be sure to use the attached power cord.**

**Never plug more than one cord at a time into the electrical receptacle.**



**Do not lay the power cord where people walk through.**



**Be sure to ground this product.**



**Do not exert excessive force when moving the machine.**



**For proper ventilation, keep the game machine 100mm(4") away from the walls.**

**Do not alter the system related dipswitch settings.**

# PRECAUTIONS FOR USE

## WARNING

If there is any abnormality such as smoke, bad smell or abnormal noise being emitted from the machine, immediately turn OFF the main power switch and unplug the power cord from the receptacle to stop operating it.



- Using the machine in abnormal conditions could result in fire or accidents.

In case of abnormality

1. Turn OFF the main power switch.
2. Unplug the power cord from the receptacle.
3. Contact your nearest dealer.

**Do not leave the power cord plugged in improperly or covered with dust.**



- Doing so could result in the power cord being damaged periodically.

## CAUTION

**Do not use this product anywhere other than industrial areas.**



- Using in a residential area or an area next to a residential area could affect signal reception of radios, television sets, telephones, etc..

- Do not give shock the surface of glass products.

- Please do not play this game if

- When you do drinking;
- When your physical condition is not normal;
- When you are in pregnancy;
- When you have on a pulse controller;
- When you have recently experienced a cramp or fainting away while watching TV.

- Avoid excessive force/shock while playing/moving the game.

- While do games, pay attention to surrounding.

**Do not plug or unplug the power cord with wet hands.**



**In handling the power cord, follow the instructions below.**



- |   |  |
|---|--|
| • Do not damage the power cord.           | • Do not modify the power cord.            |
| • Do not bend the power cord excessively. | • Do not twist the power cord.             |
| • Do not heat the power cord.             | • Do not pull the power cord.              |
| • Do not bind the power cord.             | • Do not stand on the power cord.          |
| • Do not sandwich the power cord.         | • Do not drive a nail into the power cord. |

**If the power cord or power plug becomes damaged, stop using the machine immediately and ask your nearest dealer to replace the parts.**

- \* **Electromagnetic wave may cause unexpected noise from speaker.**

# PRECAUTIONS FOR USE

## WARNING

Be sure to turn OFF the main power switch and unplug the power cord from the receptacle before inspecting or cleaning the machine.



When replacing parts, be sure to use parts of the correct specifications. Never use parts other than the specified ones.



Opening inside the machine shall be done by machine specialist only as high electric current is being sent inside. For game machine with monitor, a care should be taken while opening its back door. If not, a damage to the inside parts or the monitor may occur.



If the sub power switch of the service panel is turned OFF without turning OFF the main power switch of the power supply unit, some parts in the units remain live. When opening the back door, be sure to turn OFF the main power switch and unplug the power cord from the receptacle.



Strictly refrain from disassembly and repair of parts which are not indicated in this manual, as well as settings and remodeling.



To clean the game machine, wipe it with a soft cloth dampened in a neutral detergent.

- Using thinner or other organic solvent or alcohol may decompose the material.
- Electrical shock or equipment failure could be caused by water entering the inside of the machine.

## CAUTION

Components in the game are sensitive to vibrations and impact. Care should be used when moving and transporting the game machine.



Be sure not to let the machine tip over.

Before moving the machine, be sure to turn OFF the main power switch, unplug the power cord from the receptacle and remove the power cord from the machine.



Before moving take the machine off the levelers and move it on the casters.

Avoid excessive force while moving the machine.

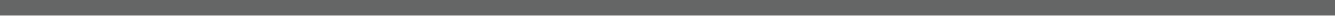
## PRECAUTIONS IN HANDLING

- When setting up, inspecting, maintaining, moving or transporting this product, follow the procedures and instructions set forth in this manual and perform such work safely.
- Do not set up, handle, inspect, maintain, move or transport this product under conditions equivalent to the condition of "WARNING" or "CAUTION" specified in this manual.
- If a new owner is to have this product as a result of transfer, etc., be sure to give this manual to the new owner.

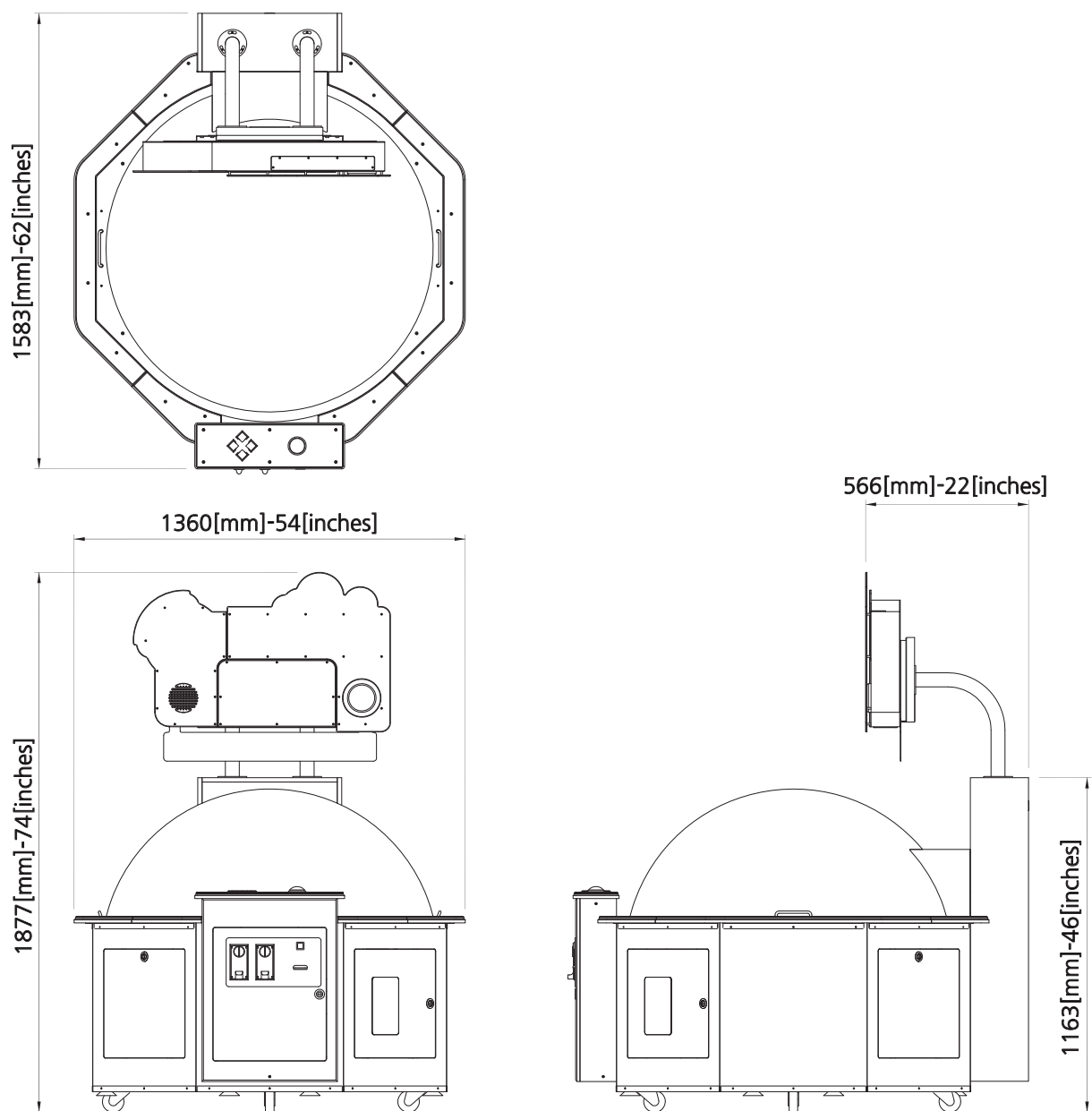
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# 1. SPECIFICATION AND DIMENSION



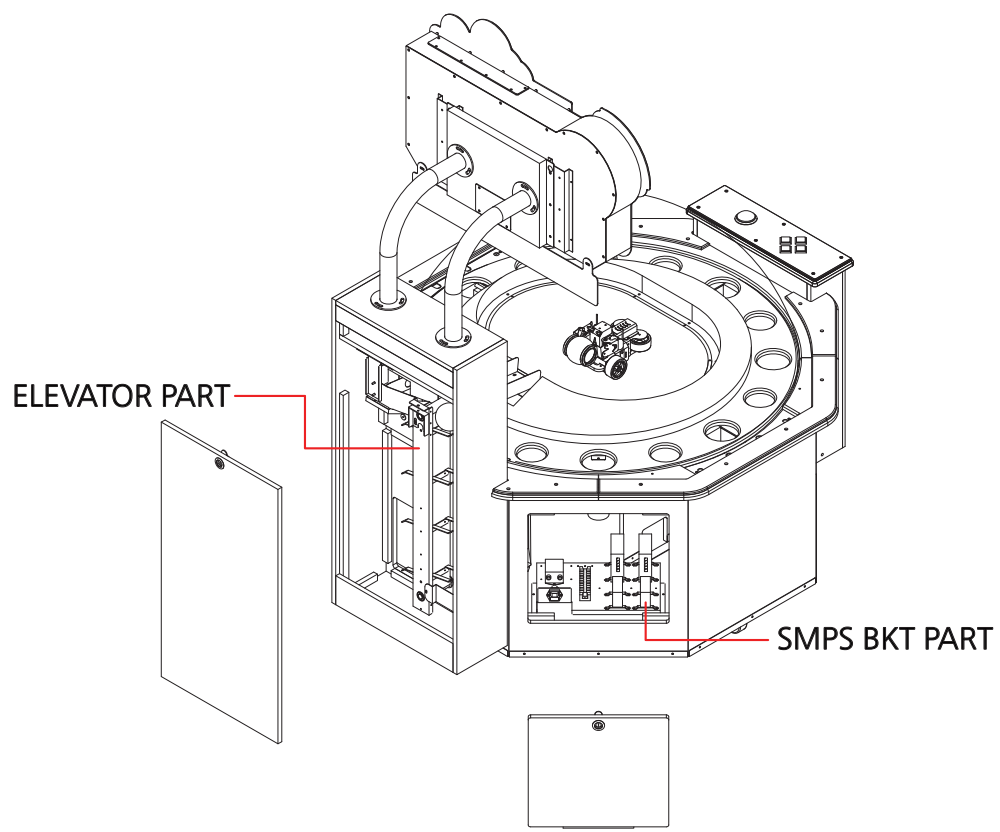
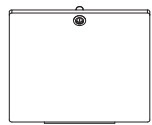
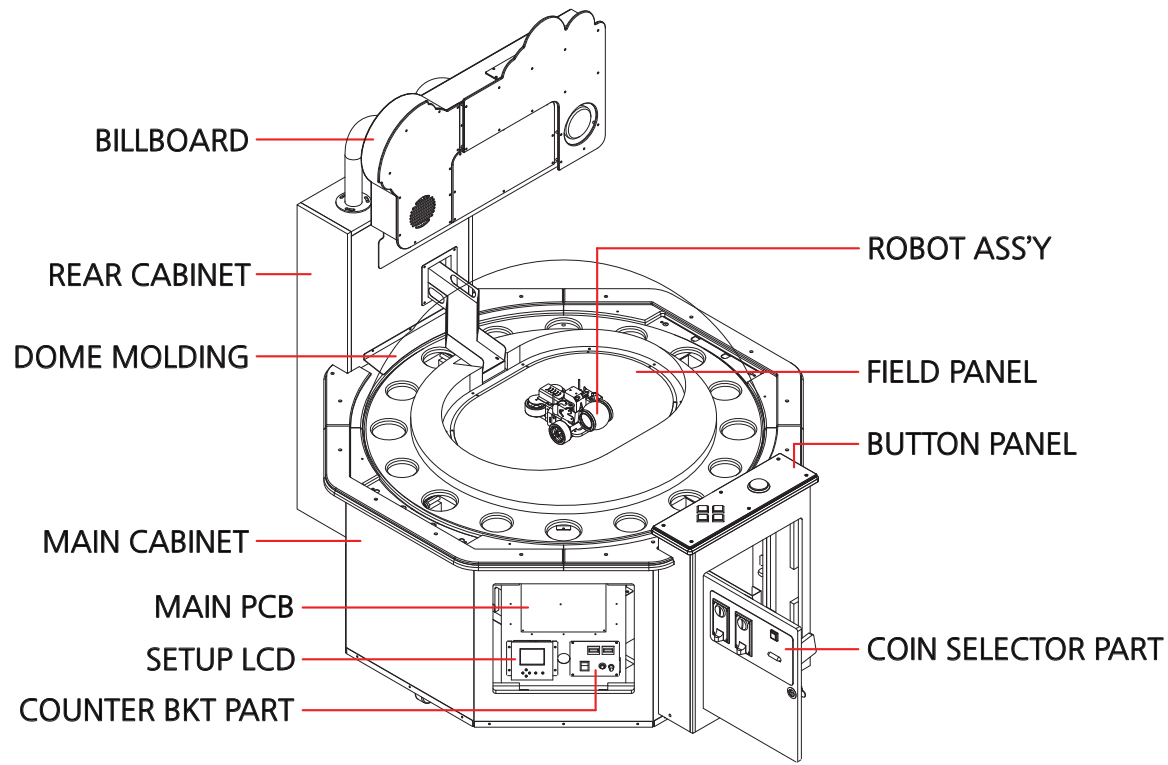
## 1-1. DIMENSION



## 1-2. SPECIFICATION

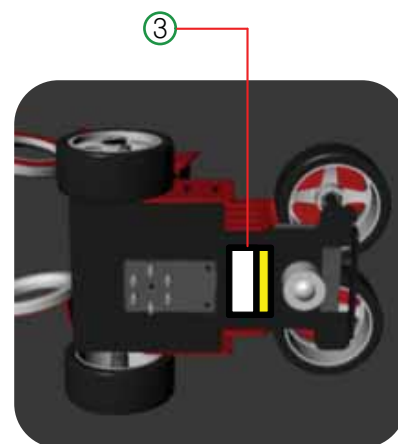
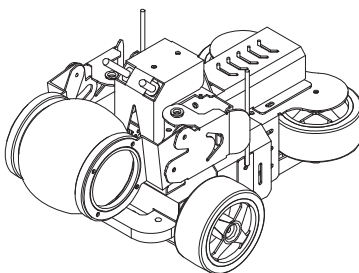
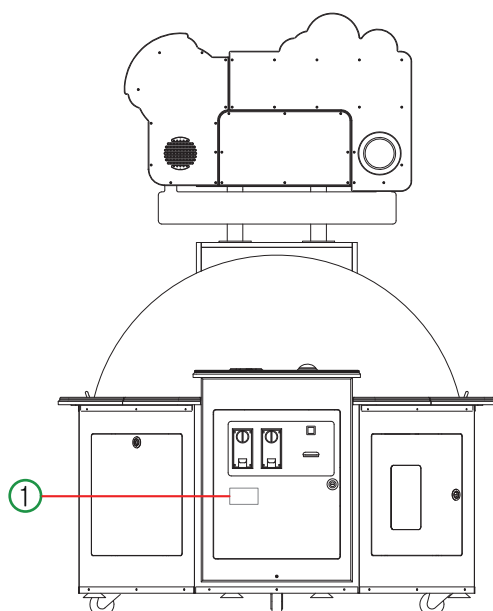
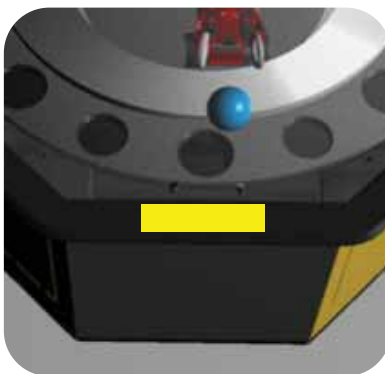
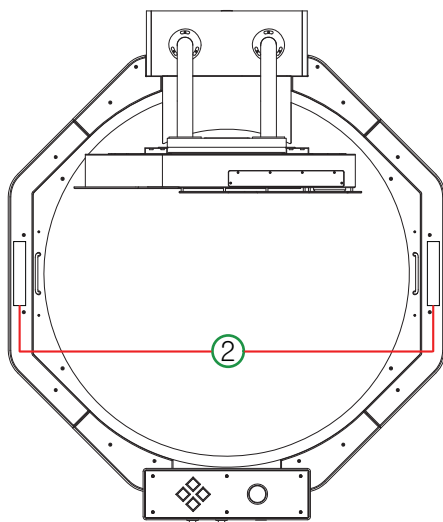
DIMENSION (W x D x H)	1360x 1583 x 1877 (mm)
PACKING DIMENSION (W x D x H)	1750 x 1460 x 1980(mm)
WEIGHT (kg)	202 kg [ WEIGHT INCLUDING PACKAGING : 235 kg ]
VOLTAGE	AC 110V ( or AC 220V )
FREQUENCY RANGE	50, 60Hz
CONSUMPTION	130 W
CERTIFICATION	-

1-3. NAME OF PARTS





## 1-4. STICKER LOCATION



①

MODEL NAME	LOBSTER ROBOT
PRODUCT S/N	-
MAIN BOX S/N	-
LCD S/N	-
CERTIFICATE	-
MADE IN KOREA	
Koyang-si, Kyonggi-do, Korea Phone:82-31-909-2100	

②



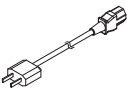





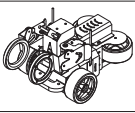
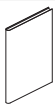
- Please be careful that potential risk of the hand or head injury when opening a DOME, Please be noted the electrodes plates may get damaged from allowing water or any objects.

③




- Please turn off a Robot when not to operate.

## 1-5. COMPONENTS

NO.	PART NAME	SPEC.		QTY
1	AC POWER CORD	110V or 220V		1
2	KEY	6001		2
3	KEY	7001		2
4	BOLT	M4x10L		8
5	WRENCH	2.5mm, 4mm		1
6	BALL	—		10
7	ROBOT ASS'Y	—		2set
8	MANUAL	—		1

## [ OPTION ] POP ASS'Y

NO.	PART NAME	SPEC.		QTY
1	BOLT	M6x16L		6

## 2. INSTALLATION

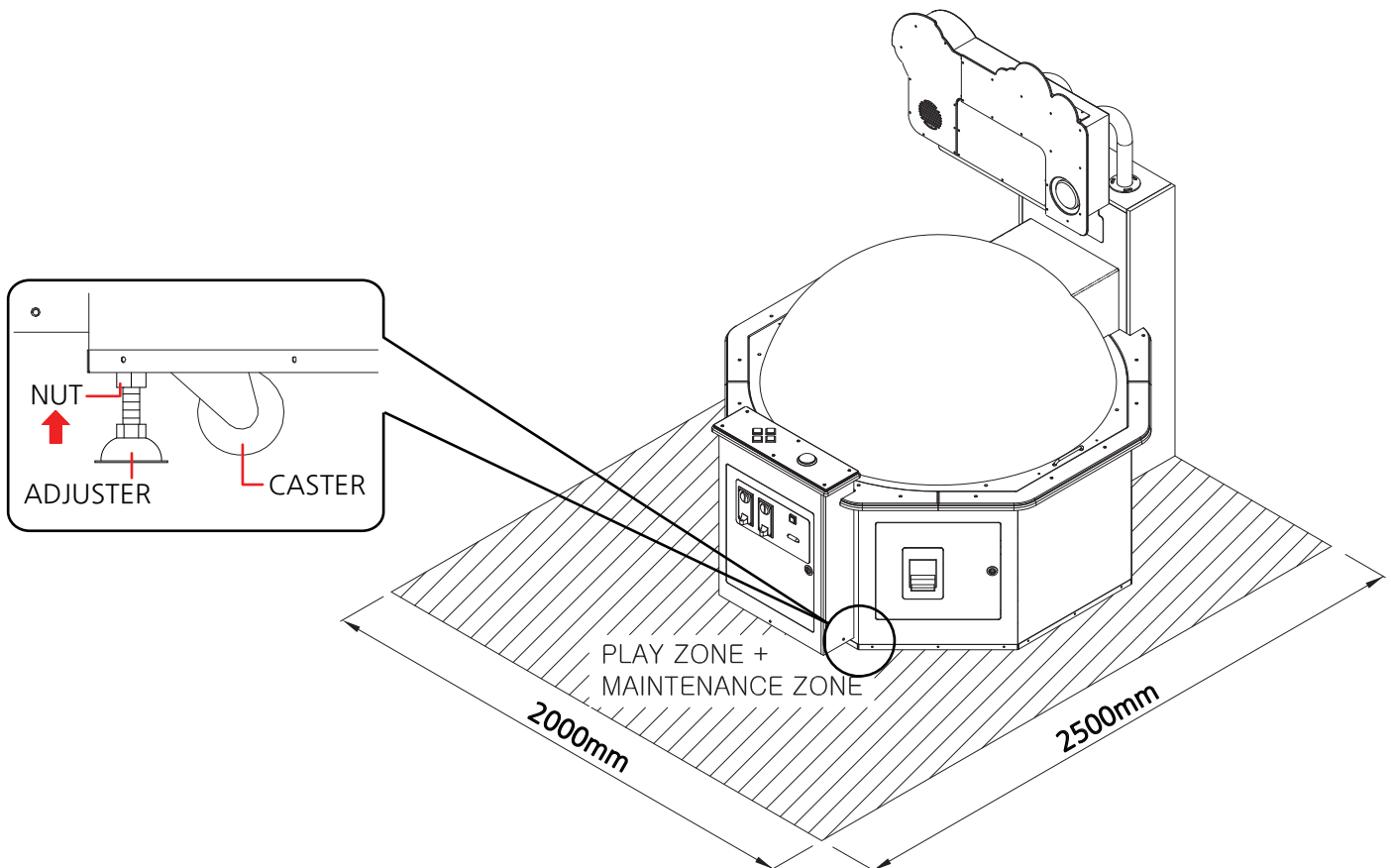
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### 2-1. INSATALLATION

- Need to have installation place.  
Maintenance Zone & Play zone should have at least 2000mm x 2500mm each.

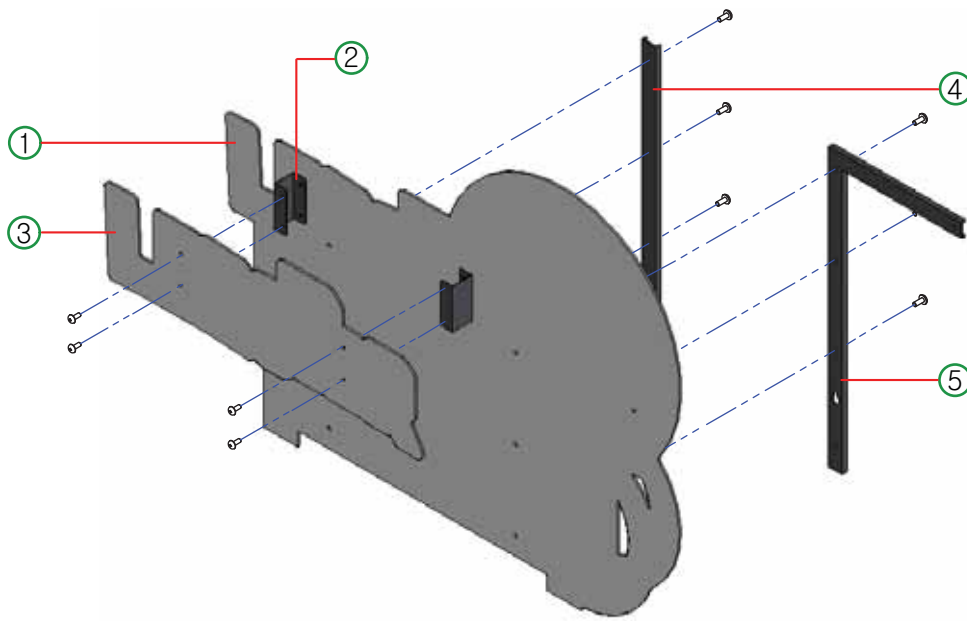
**IMPORTANT**

- Once you set up the machine with required game-play area, when installing this product, set the 4 leg levelers evenly on the floor and make sure that the product is installed stably in a horizontal position.  
Otherwise the set winning percentage can be twisted.



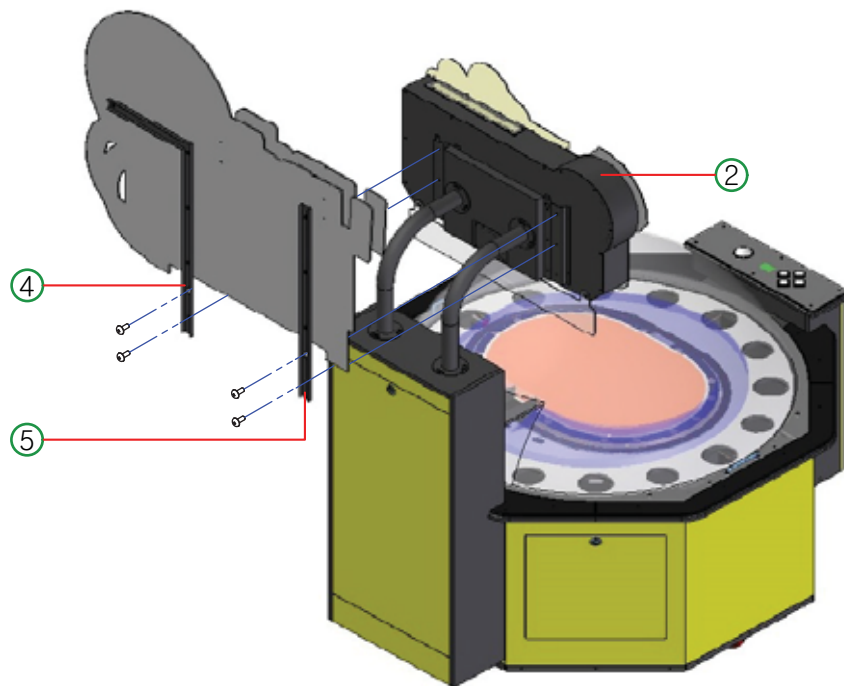
## 2-2. POP INSTALLATION

1



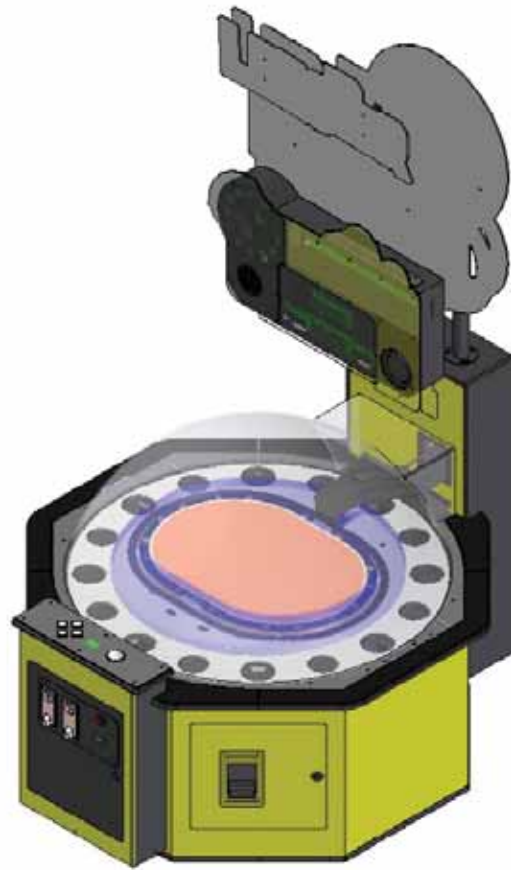
- 1) FIX ② BILLBOARD POP FIX BKT & ③ BILLBOARD POP FRONT INTO ① BILLBOARD POP REAR FORMAX [M4 bolts, 8 places]
- 2) AND THEN FIX ④ BILLBOARD POP SUPPORT BKT-A & ⑤ BILLBOARD POP SUPPORT BKT-B [M4 bolts, 6 places]

2



- 1) FIX ASSEMBLED ④ ⑤ BILLBOARD POP SUPPORT BKT. INTO ② BILLBOARD FIXED BKT

3



1) LIKE 3 ATTACH BILLBOARD POP TO THE MACHINE.

### 3. PRODUCT FEATURE AND ADVANTAGE

---

3-1. This is a mechanical ticket redemption game to control a robot mechanism carrying out the balls.

3-2. Robot is always being an object of children's dream.

3-3. FUN + REDEMPTION

3-4. A ticket redemption game by 100% user skills.

3-5. Unique Game Elements.

3-6. Opened play field to increase visibility and accessibility.

3-7. Robot Specifications

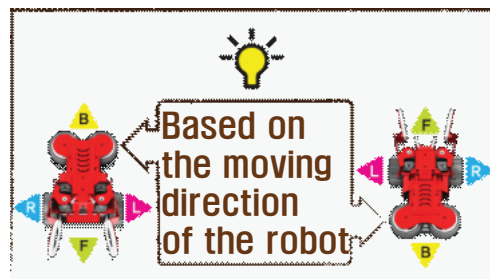
- Robot mobile BLDC (Brushless) Motors apply :  
The life of motor is permanent because of no motor Brush wear issue.
- ARM Motion Servo Motor applies :  
Apply Precision ARM Motion Servo Motor with metal gears for a long life.
- Surge protection circuit applies :  
To avoid electric shock and static electricity applied to a power surge protection circuit
- 2cell Li-ion batteries apply :  
For temporary power supply issue, adapting a 2cell lithium-ion battery.



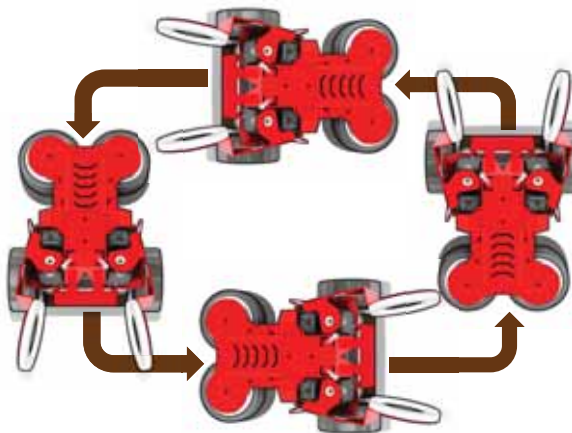
## 4. HOW TO PLAY (Basic)



- 1) Control the robot a given period time.
- 2) Get the points by putting the ball in the rotary hole.
- 3) If achieve a CHALLENGE SCORE, get the number of tickets of the score.
- 4) JP game method is the way of grasp a lamp.



## 5. DIRECTION CONTROLLER



BUTTON TYPE



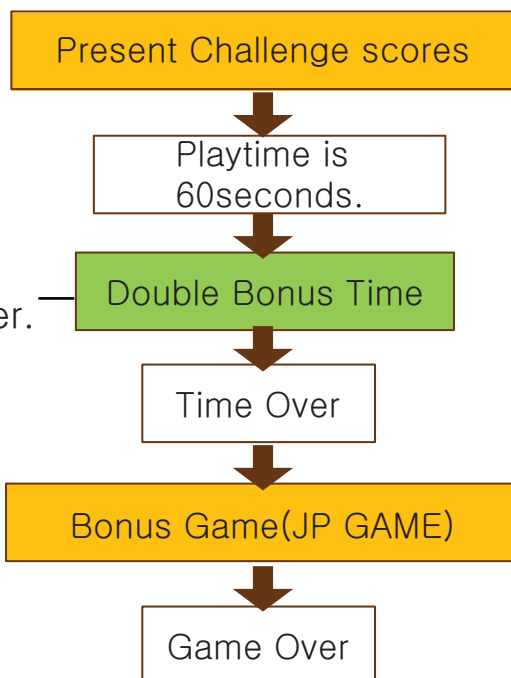
[OPTION] JOYSTICK TYPE  
\_ Possible a future replacement



## 6. GAME RULES

### \* GAME RULES FOR AIMING HIGH SCORES

- CHALLENGE SCORE : If achieved a challenge score, compensate a high-ticket reward.
- BONUS GAME : JP BONUS GAME (Manually Stop)
- ??? HOLE : Get randomly the point from 100 to 1000 points.
- DOUBLE BONUS : Get double Points for the limited time.



\* 0 to 15 seconds before the time over.



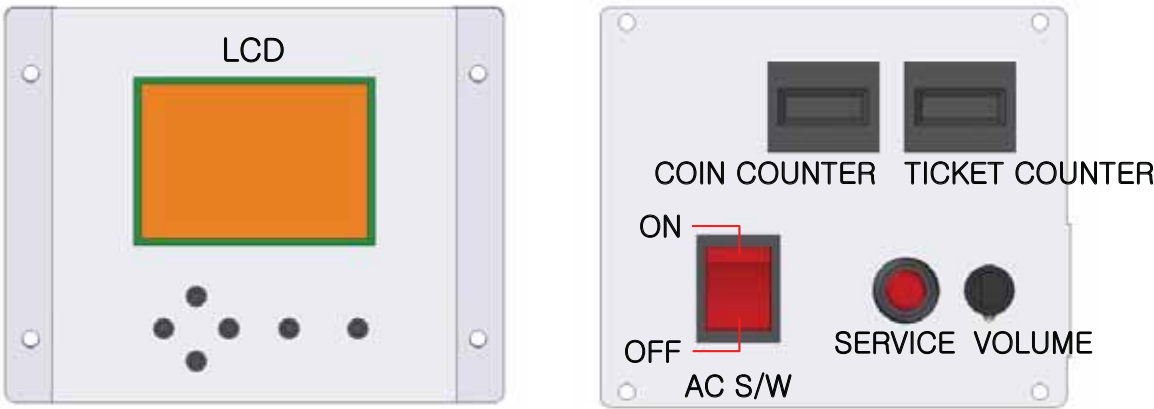


# 7. SETUP SETTING

## 7-1. MACHINE SETUP

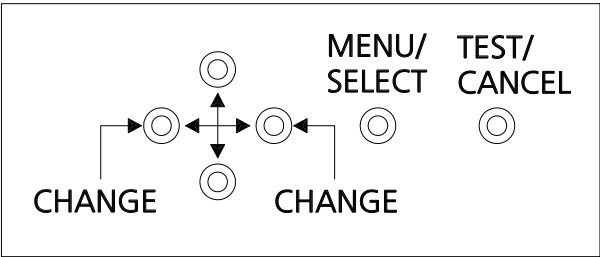
### 1. HOW TO ENTER SETUP MENU

- 1
- There is “Control panel” inside cabinet, User may set any setting using following.



[ CONTROL PANEL ]

### 2. BUTTON INSTRUCTIONS FOR USE



- 1) [ ↑↓ ] UP/DOWN BUTTON : MOVE MENU UP/DOWN
- 2) [ ←→ ] L/R SETTING BUTTON : CHANGE THE SETTING L/R
- 3) MENU/SELECT BUTTON : SETUP MENU MODE,  
EXECUTE THE SELECTION
- 4) TEST/CANCEL BUTTON : EXIT/UNBLOCK ERROR

[ OPERATION MENU ]

PRESS THE MENU BUTTON [SELECT BUTTON TO ENTER]	
## OPERATION MENU ##	
SETUP MODE	CREDIT/COIN, ROBOTID, GAME TIME, DOUBLE TIME, CHALLENGE, WIN TICKET, JACKPOT, BONUS GAME, WHEEL TYPE, MERCY TICKET, HALF PAYOUT, NO-TICKET, AVG-TICKET, DEMO VOLUME, DEMO ROBOT.
CLEAR MODE	TICKET, CREDITS, AND GAME DATA.
VIEW INT-DATA	GAMES, PAYOUT, AVG TOTAL, CREDITS IN, TICKETS OUT, GAME SCORE INFO, JP BONUS INFO, VER INFO.
FACTORY-SETTING	CLEARs ALL DATA AND SETS GAME TO DEFAULT.
TEST MODE	INPUT TEST, LAMP, FND & LED WHEEL, ELEVATOR, ROBOT, COIN, TICKET, SOUND TEST.
GAME MODE	RETURN TO THE GAME.

## 7-2. SETUP MODE

SETUP MODE			
LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT SETTING
Credit/Coin	COIN PER CREDIT	Free, 1/1, 1/2, 1/3, 1/4, 1/5 1/6, 1/7, 1/8, 2/1, 3/1, 4/1, 5/1	1/1
RobotID	ROBOT COMMUNICATION CHANNEL ID SETTING	0 ~ 31	0
GameTime	GAME PLAY TIME	20 ~ 300 (SEC)	60 sec
DoubleTime	DOUBLE BONUS TIME	0 ~ 60 (SEC)	10 sec
Challenge	CHALLENGE SCORE SETTING 100 ~ 20000 : FIXED SCORED	500 ~ 20000 (INCREMENTS OF 500 POINTS)	6000
Challen~Opt	RANDOM OPTION FOR CHALLENGE SCORE [Off] - Challenge CHALLENGE SCORE CHANGED AT RANDOM [On] - Challenge FIXING CHALLENGE SCORE	[Off] [On]	[On]
Win Ticket	TOTAL NUMBER OF TICKETS WHEN SUCCED IN THE CHALLENGE SCORE	0 ~ 2000	500
Jackpot	NUMBER OF TICKETS AWARDED OF JACKPOT	100 ~ 2000	500
BonusGame	AFTER FINISHING THE MAIN GMAE, SETS THE CONDTION OF BONUS GAME [Off] : NO BONUS GAME [All] : BONUS GAME WITHOUT CONDITIONS [???] : ??? PASS THE BONUS GAME IF MORE THAN ONE BALL GOLES [100] ~ [5000] : PASS TO THE BONUS GAME IF GET MORE THAN SETTING SCORES.	[Off] [All] [???] 100 ~ 5000	[All]
WheelType	WHEELTYPE	Def(DEFAULT), User	Def
WheelSpeed	WHEELSPEED	55 ~ 100	55
MercyTicket	NUMBER OF MERCY TICKET	0 ~ 10	0
HalfPayout	ONE TICKET PER TWO POINTS	OFF, ON	OFF
No-Ticket	NO TICKET DISPENSING	OFF, ON	OFF
AVG-TICKET	AVERAGE TICKETS DISPENSED PER GEME	5 ~ 150	40
DemoVolume	DEMO SOUND VOLUME OFF - DEMO SOUND VOLUME IS OFF	OFF, 10 ~ 100	100
DemoRobot	SET THE ROBOT MOVEMENTS IN DEMO MOVE	Off, On	On
SAVE AND EXIT	SAVE AND EXIT	PRESS THE BUTTON TO ENTER THE SELECTION	
CANCEL AND EXIT	CANCEL AND EXIT		

## [ 1 ROBOT RATE PER 1 PURSE OF BILL ]

\* As shown on the below photo, "ON" means raising a button to the upwards on the DIP SW.  
On the contrary, "OFF" means moving it down to the downwards.



		ROBOT DIP S/W				
		1	2	3	4	5
ROBOT ID	0	On	On	On	On	On
	1	off	On	On	On	On
	2	On	off	On	On	On
	3	off	off	On	On	On
	4	On	On	off	On	On
	5	off	On	off	On	On
	6	On	off	off	On	On
	7	off	off	off	On	On
	8	On	On	On	off	On
	9	off	On	On	off	On
	10	On	off	On	off	On
	11	off	off	On	off	On
	12	On	On	off	off	On
	13	off	On	off	off	On
	14	On	off	off	off	On
	15	off	off	off	off	On
	16	On	On	On	On	off
	17	off	On	On	On	off
	18	On	off	On	On	off
	19	off	off	On	On	off
	20	On	On	off	On	off
	21	off	On	off	On	off
	22	On	off	off	On	off
	23	off	off	off	On	off
	24	On	On	On	off	off
	25	off	On	On	off	off
	26	On	off	On	off	off
	27	off	off	On	off	off
	28	On	On	off	off	off
	29	off	On	off	off	off
	30	On	off	off	off	off
	31	off	off	off	off	off

\* SELECT THE WHEEL TYPE (USER) OF SETUP MODE AND MOVE TO BELOW ITEMS USING THE SELECT BUTTON

## SETUP MODE -> WHEEL TYPE [USER]

ONCE EACH ITEM IS CHANGED, AN AVERAGE TICKETS AWARDED AND THE NUMBER OF TICKETS DISPENSED WILL BE CHANGED.

LCD DISPLAY	DESCRIPTION	RANGE	DEFAULT SETTING
Hole - A01	WHEEL HOLE NUMBER A01 SCORE SETTING	100, 200, 300, 500, ??? (MYSTERY)	300
Hole - A02	WHEEL HOLE NUMBER A02 SCORE SETTING		200
Hole - A03	WHEEL HOLE NUMBER A03 SCORE SETTING		500
Hole - A04	WHEEL HOLE NUMBER A04 SCORE SETTING		100
Hole - A05	WHEEL HOLE NUMBER A05 SCORE SETTING		300
Hole - A06	WHEEL HOLE NUMBER A06 SCORE SETTING		200
Hole - A07	WHEEL HOLE NUMBER A07 SCORE SETTING		???
Hole - A08	WHEEL HOLE NUMBER A08 SCORE SETTING		100
Hole - A09	WHEEL HOLE NUMBER A09 SCORE SETTING		300
Hole - A10	WHEEL HOLE NUMBER A10 SCORE SETTING		200
Hole - A11	WHEEL HOLE NUMBER A11 SCORE SETTING		500
Hole - A12	WHEEL HOLE NUMBER A12 SCORE SETTING		100
Hole - A13	WHEEL HOLE NUMBER A13 SCORE SETTING		300
Hole - A14	WHEEL HOLE NUMBER A14 SCORE SETTING		200
Hole - A15	WHEEL HOLE NUMBER A15 SCORE SETTING		???
Hole - A16	WHEEL HOLE NUMBER A16 SCORE SETTING		100
SAVE AND EXIT	SAVE AND EXIT	PRESS THE BUTTON TO ENTER THE SELECTION	
CANCEL AND EXIT	CANCEL AND EXIT		

## CLEAR MODE

LCD DISPLAY	DESCRIPTION	
CLEAR TICKETS	CLEAR THE NUMBER OF TICKETS OWE	PRESS THE BUTTON TO ENTER THE SELECTION
CLEAR CREDITS	CLEAR ANY EXTRA CREDITS AND BALLS	
CLEAR GAMEDATA	CLEAR GAME DATA	
EXIT	EXIT	

## VIEW INT -DATA

LCD DISPLAY	DESCRIPTION
GAMES	TOTAL NUMBER OF GAMES PLAYED
PAYOUT	TOTAL NUMBER OF TICKETS DISPENSED
AVG TOTAL	AN AVERAGE TICKETS PAID PER GAME
**** CREDITS IN ****	TOTAL NUMBER OF COINS PLAYED AND SERVICE COINS
**** TICKETS OUT ***	TOTAL NUMBER OF GAME DISPENSED AND JACKPOT AWARDED
**GAMESCORE INFO**	TOTAL NUMBER OF GAME DISPENSED AND JACKPOT AWARDED
** JP BONUS INFO ***	BONUS GAME SCORE AND
***** VER INFO *****	CURRENT INSTALLED VERSION NUMBER & OPERATION HOUR
CANCEL : PRESS THE CANCEL BUTTON TO EXIT	

## FACTORY-SETTING

FACTORY SETTING (CLEARS ALL DATA AND SETS VALUES TO DEFAULT)
SELECT : PRESS THE CANCEL BUTTON TO INITIALIZE

## 7-3. TEST MODE























TEST MODE		
LCD DISPLAY	DEFAULT SETTING	DESCRIPTION
<b>INPUT TEST</b>	[->]	ENTER THE INPUT MODE STATUS
<b>LAMP</b>	Off, On	CHECK LAMP Off, On(JACKPOT LAMP, BUTTON LAMP, TICKET LAMP)
<b>FND &amp; LED</b>	0 ~ 4	CHECK FND & LED
<b>WHEEL</b>	Off, On	CHECK THE WHEEL
<b>ELEVATOR</b>	Off, On	CHECK THE BALL ELEVATOR
<b>ROBOT</b>	Status	CHECK THE ROBOT TEST (INITIALIZING COMMUNICATION)
<b>COIN</b>	Off, On	CHECK THE COIN SELECTOR
<b>TICKET</b>	Off, On	CHECK THE TICKET OPERATING (DISPENSING 5 TICKETS)
<b>SOUND TEST</b>	[->]	RETURN TO THE SSOUND TEST MPDE
<b>GAME MODE</b>	RETURN TO THE GAME MODE	

TEST MODE -> INPUT TEST	
LCD DISPLAY	DESCRIPTION
0:0000,1:0000,7:0000 UP : 0, DOWN : 0 LEFT : 0, RIGHT : 0 BUTTON : 0, SERVICE : 0	UP : FORWARDING BUTTON(JOYSTICK) DOWN : REWARDING BUTTON(JOYSTICK) LEFT : REVOLVING BUTTON(JOYSTICK) RIGHT : REVOLVING BUTTON(JOYSTICK) BUTTON : TO HOLD AND RELEASE THE BALL SERVICE : SERVICE BUTTON

TEST MODE -> SOUND TEST		
LCD DISPLAY	DEFAULT SETTING	DESCRIPTION
<b>SOUND</b> Stop/Play	0 ~ 15	CHECK THE SOUND PLAY (On, Off)
-EXIT-	RETURN TO THE TEST MODE	

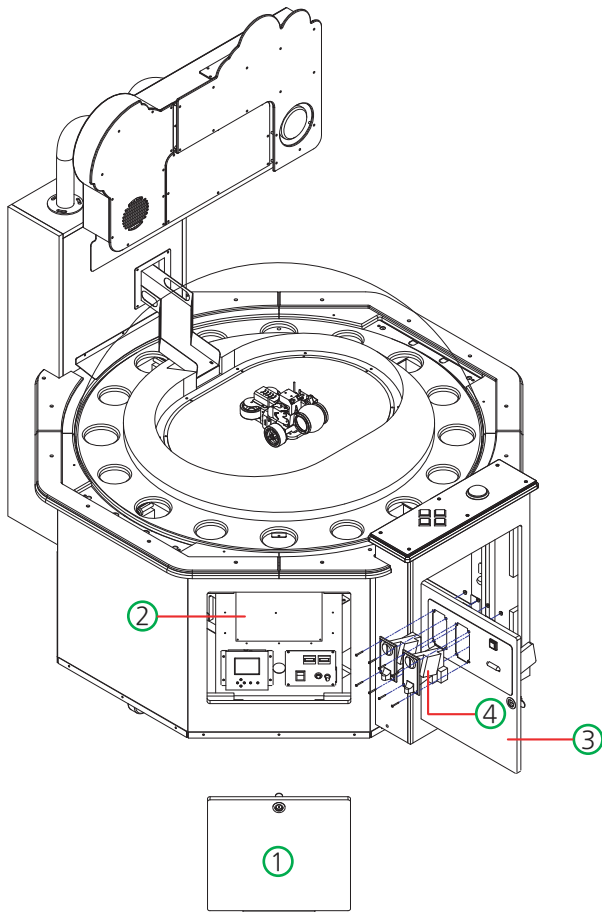
GAME MODE	
RETURN TO THE GAME	PRESS THE SELECT BUTTON TO ENTER THE SELECTION

## 7-4. ERROR CODE

Error Code	TIME Fnd Display	Error Type	DESCRIPTION	REMEDY
Er0-1		SETUP LCD	SETUP LCD NOT RESPONDING	CHECK THE SETUP LCD (THE PLAY WORKS NORMALLY)
Er0-2		SYSTEM	FAILED TO READ & WRITE MEMORY OF SETUP SAVE DATA	POWER OFF AND ON IF PROBLEM CONTINUES CHANGE THE MAIN BOARD
Er0-3			FAILED TO SETUP SAVE DATA	
Er0-4			FAILED TO READ & WRITE MEMORY OF GAME SAVE DATA	POWER OFF AND ON IF PROBLEM CONTINUES REPLACE THE TOP CPU BOARD
Er1-1		COIN SELECTOR	COIN 1 SENSOR SIGNAL CONTINUES	CHECK THE COIN SELECTOR 1 (COIN SWITCH)
Er1-2			COIN 2 SENSOR SIGNAL CONTINUES	CHECK THE COIN SELECTOR 2 (COIN SWITCH)
Er2-1		BILL ACCEPT	BILL ACCEPT SIGNAL CONTINUES	BILL ACCEPT SIGNAL LOW CHECK
Er4-1		ROBOT	RF COMMUNICATION MODULE DOES NOT WORK	CHECK THE BOARD OR RF COMMUNICATION MODULE PCB
Er4-2			NO COMMUNICATION WITH THE ROBOT	CHECK THE ROBOT COMMUNICATION
Er4-3			ROBOT IS NOT CONNECTED TO THE ELECTRODE PLATE	CHECK THE ROBOT ELECTRODE PIN OR ELECTRODE PLATE
Er5-1		WHEEL	WHEEL HOME ENCODER SIGNAL NOT CHANGED	CHECK THE HOME ENCODER SENSOR
Er5-2			WHEEL ENCODER SIGNAL NOT CHANGED	CHECK THE MOTOR FUNCTION OR ENCODE SENSOR
Er5-2			WHEEL DOES NOT WORK	CHECK THE BALL STUCK OR WHEEL
Er6-1		ELEVATOR	BOTTOM ENCODER SIGNAL NOT CHANGED	CHECK THE MOTOR FUNCTION OR BOTTOM ENCODER SENSOR
Er6-2			NO SIGNAL IN TOP SWITCH OF BALL	CHECK THE BALL OR TOP SWITCH
Er6-3			TOP SWITCH OF BALL SIGNAL CONTINUES	CHECK THE TOP BALL SWITCH
Er8-1		GOAL IN SWITCH	HOLE 1(TOP) SWITCH SIGNAL CONTINUES	CHECK THE SWITCH OF GOLE IN 1(TOP HOLE IN 12 O'CLOCK)
Er8-2			GOLE IN 2(BOTTOM) SWITCH SINGAL CONTIUNES	CHECK THE SWITCH OF GOLE IN 2 (BOTTOM HOLE IN 6 O'CLOCK)
Er8-3			GOLE IN 3(LEFT) SWITCH SINGAL CONTINUES	CHECK THE SWITCH OF GOLE IN 3(LEFT HOLE IN 9 O'CLOCK)
Er8-4			GOLE IN 4(RIGHT) SWITCH SINGAL CONTINUES	CHECK THE SWITCH OF GOLE IN 4(RIGHT HOLE IN 3 O'CLOCK)
Ert-1		TICKET ERROR	NO TICKETS	CHECK TICKET DISPENSER OR FUNCTION
Ert-2			TICKET JAMMED	CHECK TICKET DISPENSER JAMMED OR DIP SWITCH

## 8. HOW TO REPLACE MAJOR COMPONENTS

### 8-1. Replacing MAIN PCB & COIN SELECTOR



#### \* MAIN PCB ASS'Y

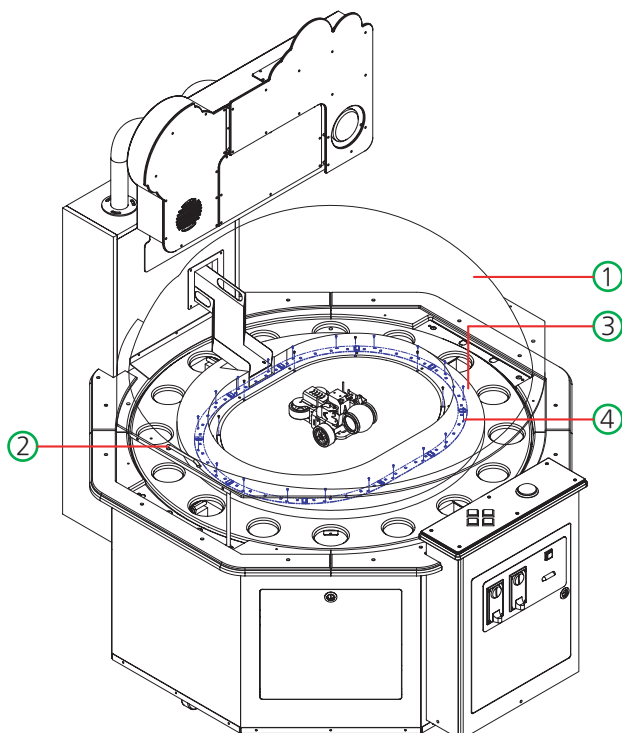
- (1) ① Open a Left Side Door, There is a ② MAIN PCB.  
After separate a connected connector, replace a PCB.

#### \* COIN SELECTOR

- (1) ③ Open a Front Side Door, Separate a connected connector with COIN SELECTOR, And then ④ Separate a COIN SELECTOR.  
[Each M4 bolts, 4points]
- (2) After separating, replace a COIN SELECTOR.

NO.	PART NAME	SPEC.	CODE NO.
②	MAIN PCB ASS'Y	-	AICU0PCB011
④	COIN SELECTOR	TW-130B	MZZZ0COS032

### 8-2. Replacing FILED LED PCB ASS'Y



#### \* FILED LED PCB

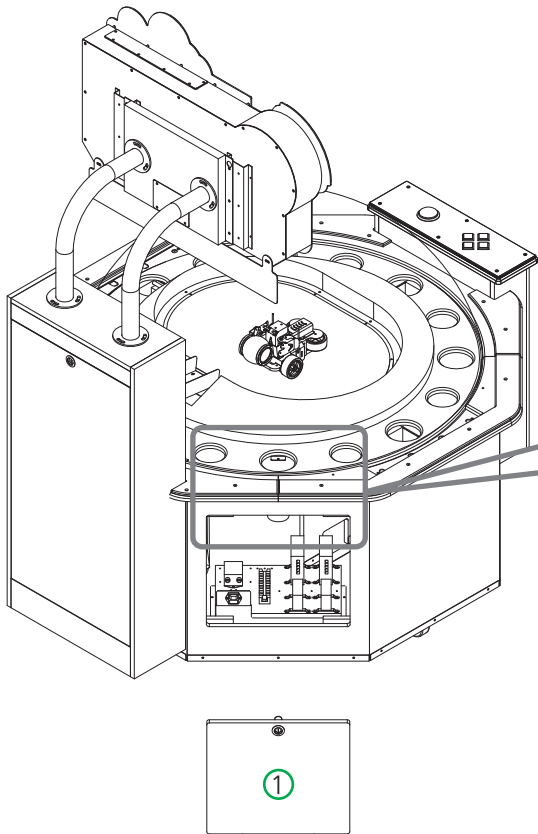
- (1) ① After disconnecting a DOME MOLDING PART,  
[M6 bolts, 4 places] ② Pull up ROUND BAR HANDLE  
to open the DOME.
- (2) ③ After disconnecting a FIELD COVER MOLDING,  
[M4 bolts, 10 places]
- (3) ④ After separating connectors connected to FIELD LED PCB ASS'Y  
PCB, Replace a PCB.

NO.	PART NAME	SPEC.	CODE NO.
②	ROUND BAR HANDLE	-	-
④	FIELD LED PCB ASS'Y-A,B,C	-	ALOB0PCB002~007

\* See details of PCB on P31.



### 8-3. Replacing WHEEL MOTOR



- (1) ① Open a Left Side Door, There is a ②③④ WHEEL MOTOR.
- (2) After separating ⑤ WHEEL MOTOR BKT [Each M6 bolts, 4 points] and then Replace a MOTOR ASS'Y

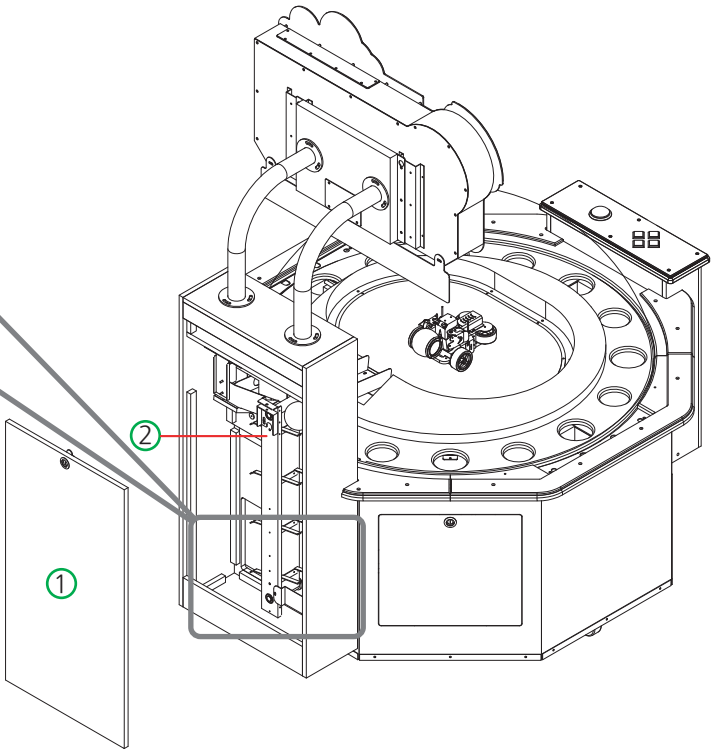
NO.	PART NAME	SPEC.	CODE NO.
②	DC MOTOR	K6D-12V-15W	MZZZ0MOT032
③	GEAR HEAD	K6D-30:1	MZZZ0GEA004
④	GEAR HEAD	K6G10BX	MZZZ0GEA005



### 8-4. Replacing ELEVATOR MOTOR



- (1) ① Open a Rear Door, There is a, ② ELEVATOR ASS'Y.
- (2) After separating ③ ELEVATOR MOTOR BKT.  
[Each M4 bolts, 2 points]
- (3) After separating, replace a ④ MOTOR.  
[Each M4 bolts, 4 points]



NO.	PART NAME	SPEC.	CODE NO.
④	DC MOTOR	KGE-3448-050-12V _1/204 F-TYPE	MZZZ0MOT072

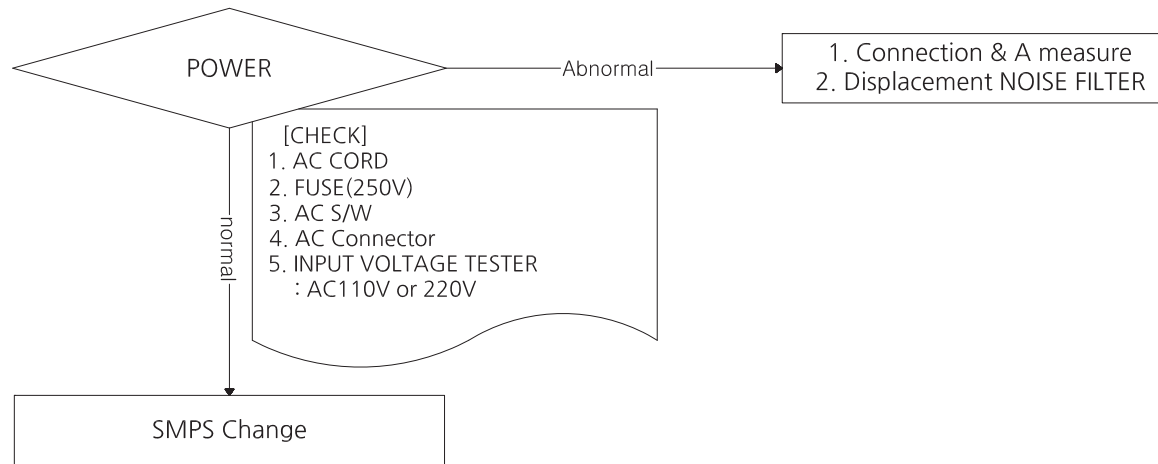
\* Reassemble them in reverse order and check performance of the game.



## 9. TROUBLESHOOTING

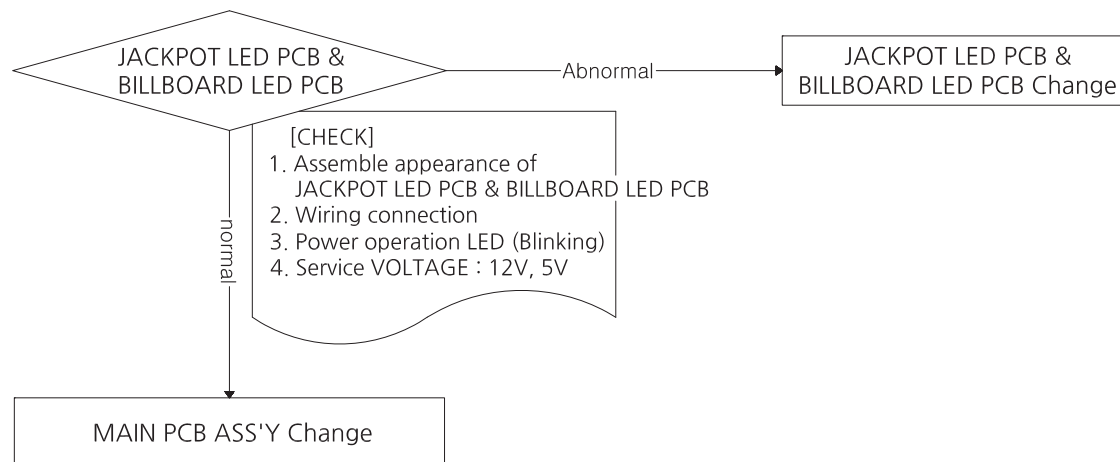
### 9-1. IN CASE OF POWER FAILURE

\*Common: Check the input voltage, check wiring



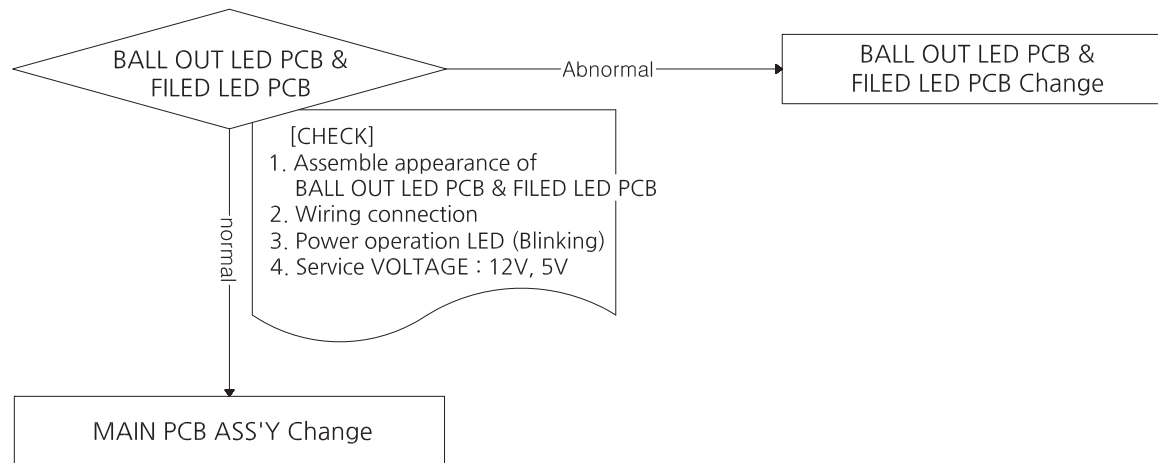
### 9-2. JACKPOT LED PCB & BILLBOARD LED PCB ASS'Y ERROR

\*Common: Check the input voltage, check wiring



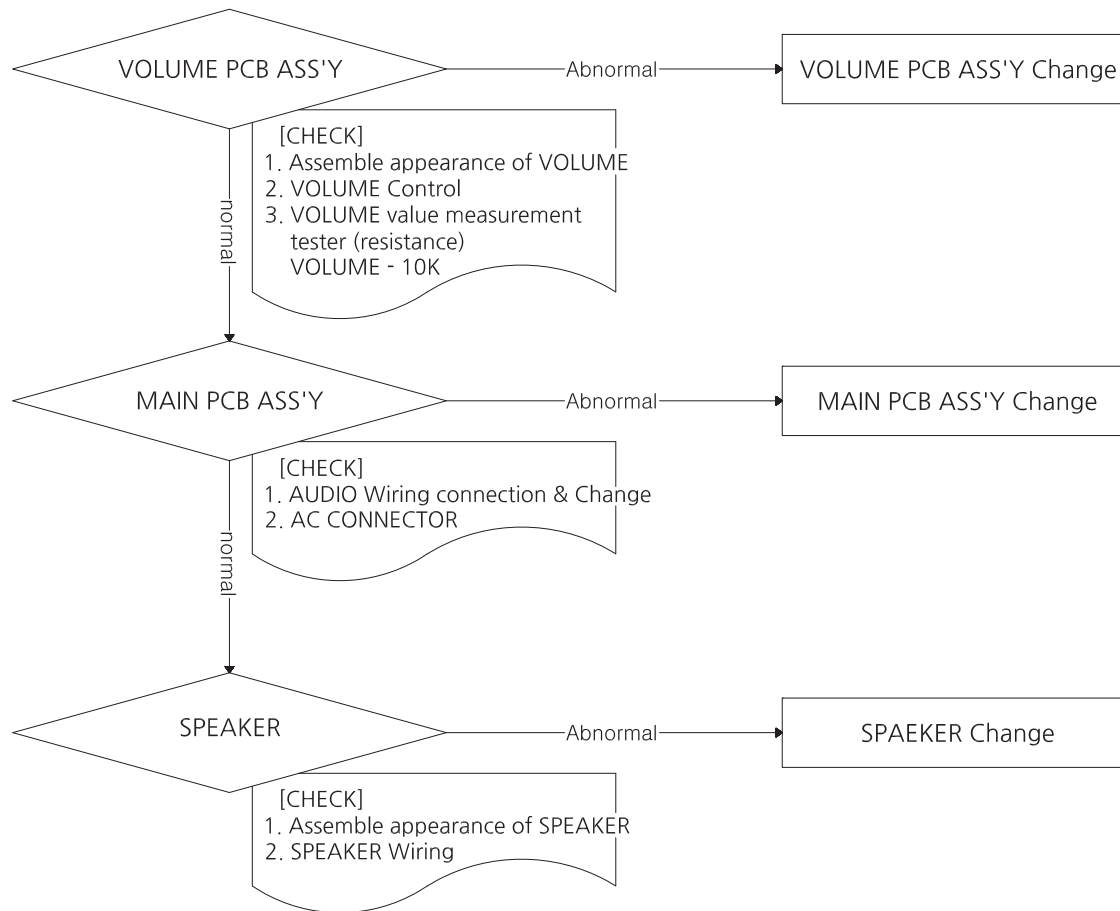
## 9-3. BALL OUT LED PCB & FILED LED PCB ASS'Y ERROR

\*Common: Check the input voltage, check wiring



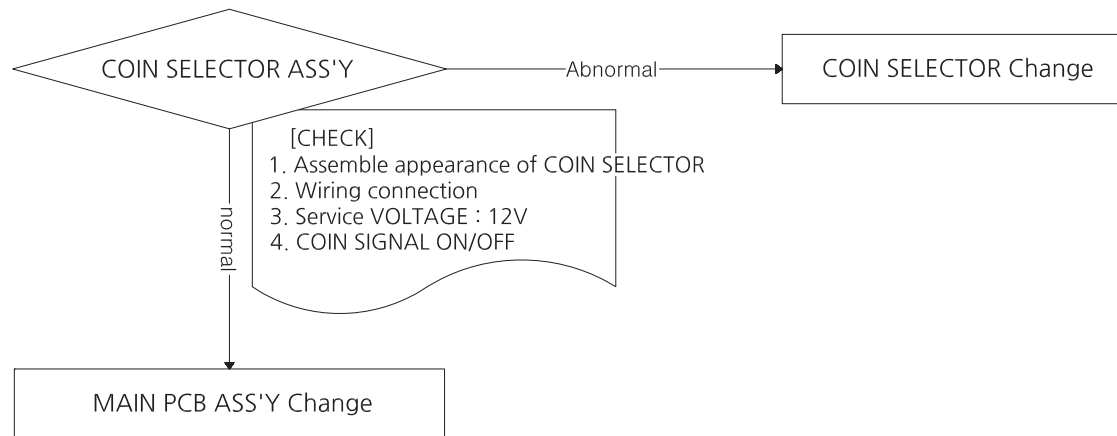
## 9-4. SOUND ERROR

\*Common: Check the input voltage, check wiring



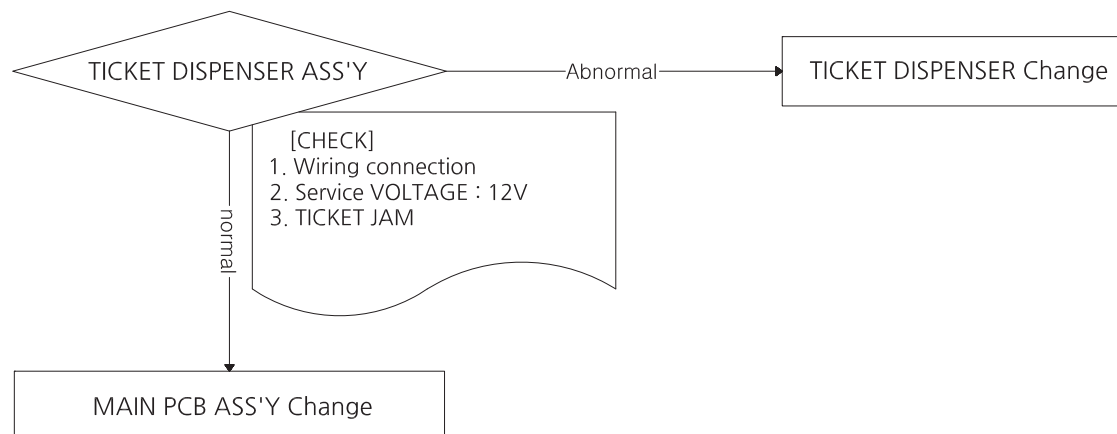
## 9-5. COIN SELECTOR ERROR

\*Common: Check the input voltage, check wiring



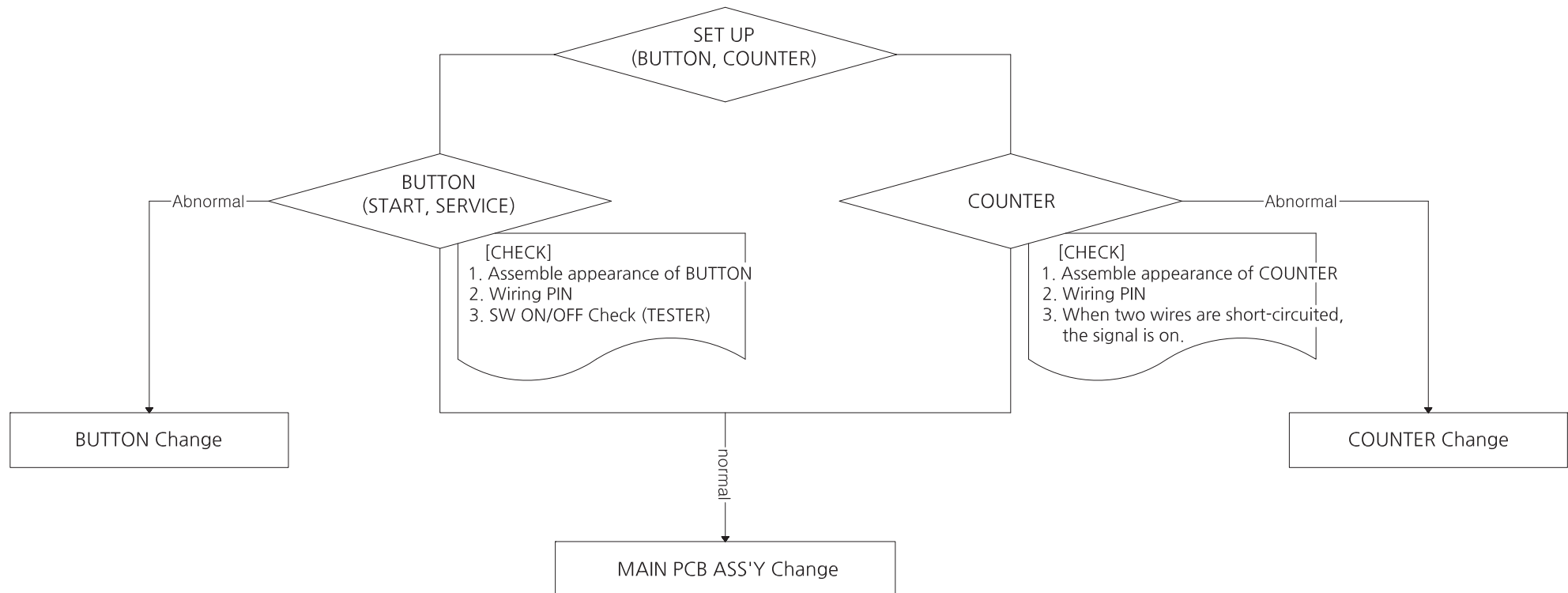
## 9-6. TICKET DISPENSER OPERATING

\*Common: Check the input voltage, check wiring



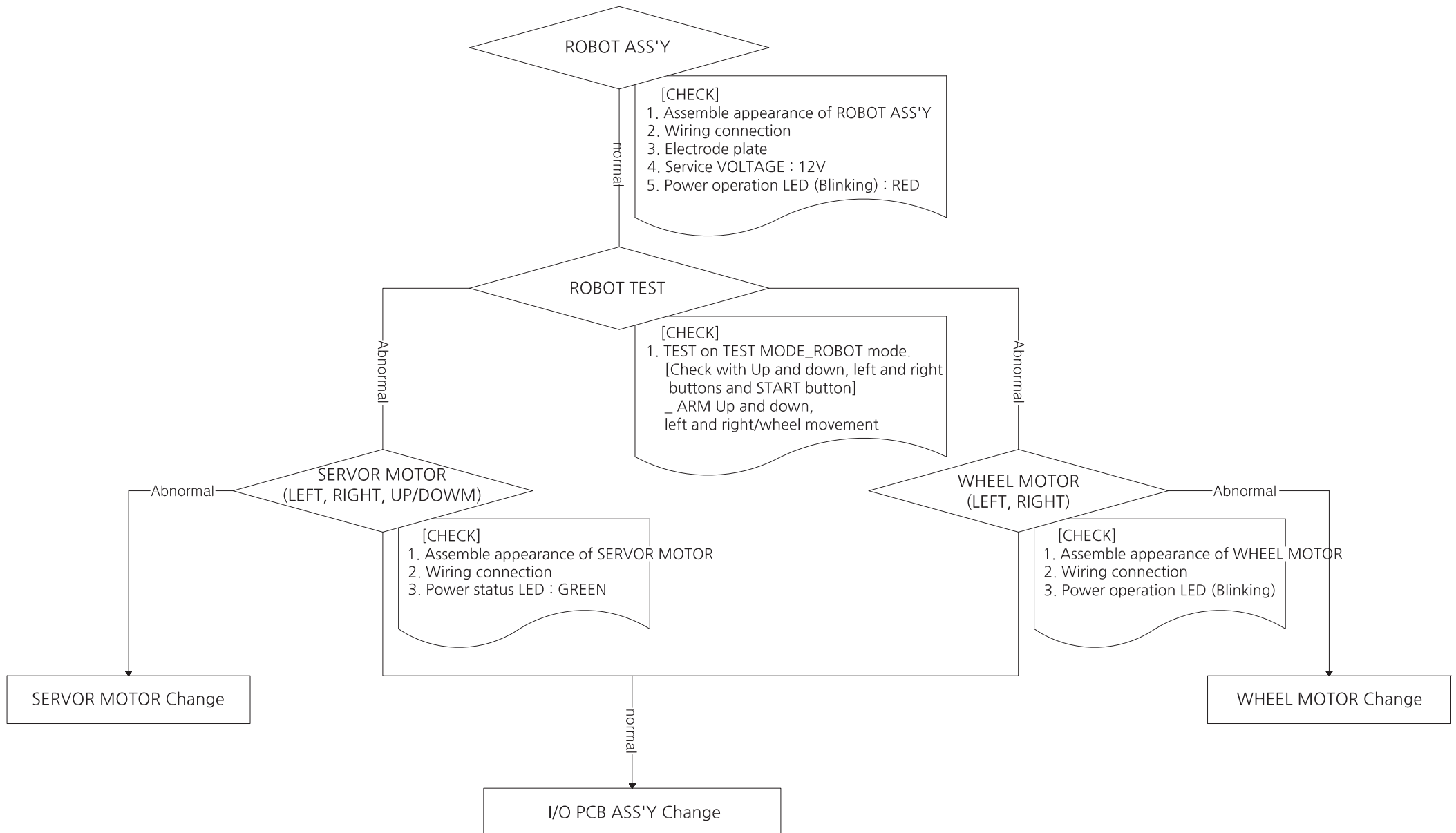
## 9-7. BUTTON & COUNTER ERROR

\*Common: Check the input voltage, check wiring



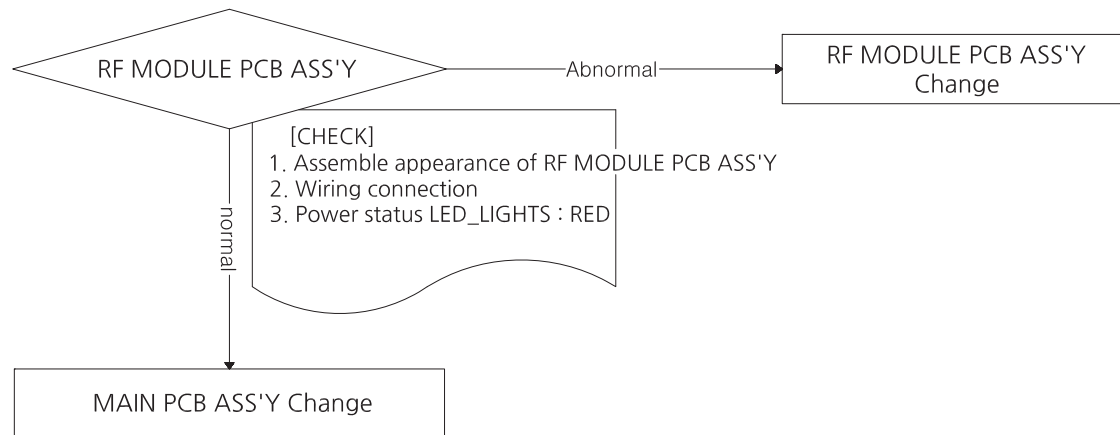
## 9-8. WHEN A ROBOT DOESN'T WORK

\*Common: Check the input voltage, check wiring



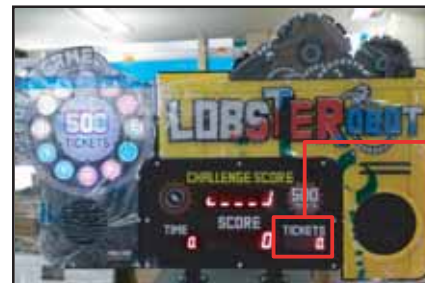
## 9-9. WHEN A ROBOT CAUSED A COMMUNICATION PROBLEM

\*Common: Check the input voltage, check wiring



## 9-10. ROBOT BATTERY CHARGE WHEN THE PROBLEM OCCURRED

\*Common: Check the input voltage, check wiring



TICKET FND\_DOT PART



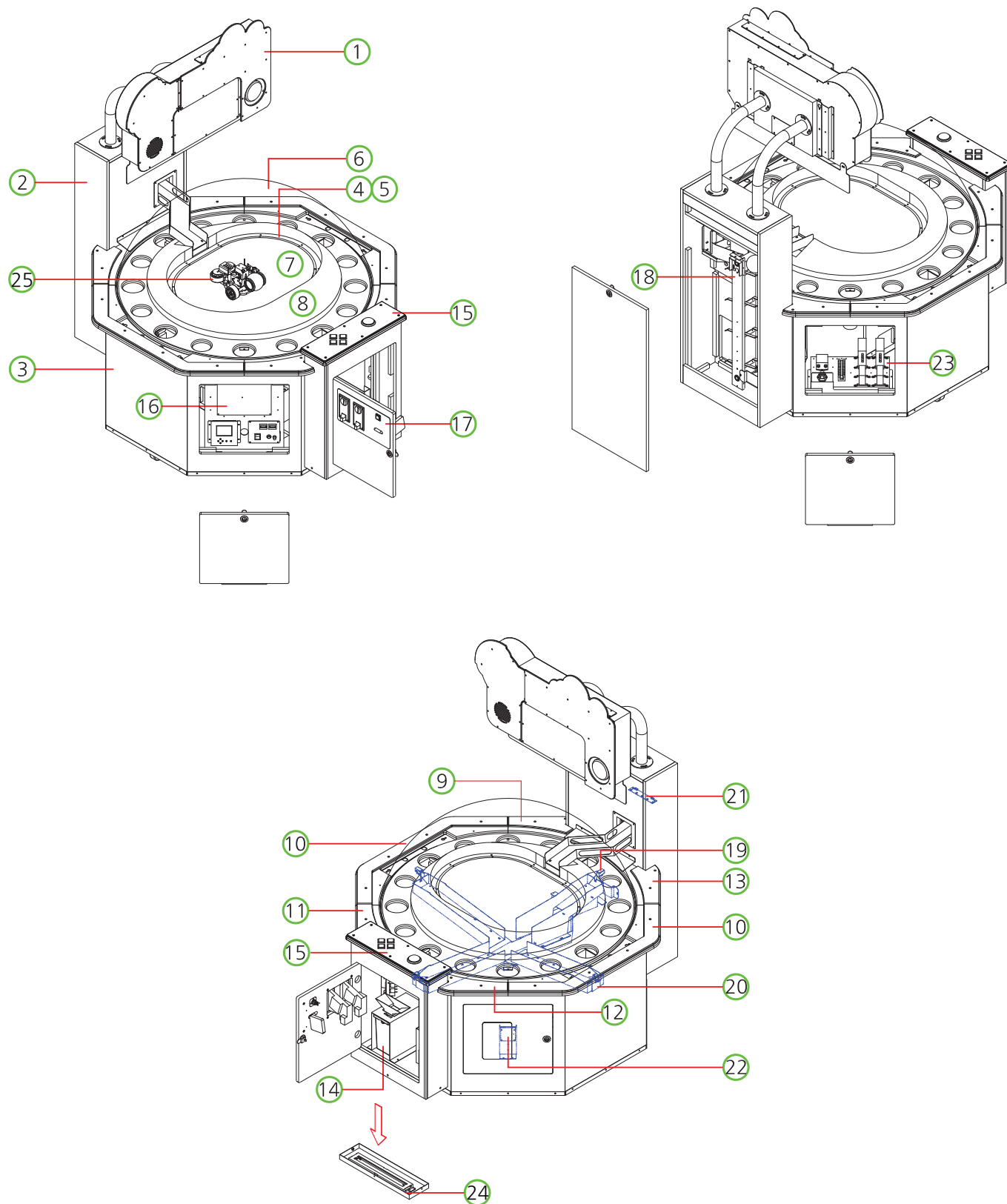
DOT



ELECTRODE PINS

## 10. EXPLODED VIEW

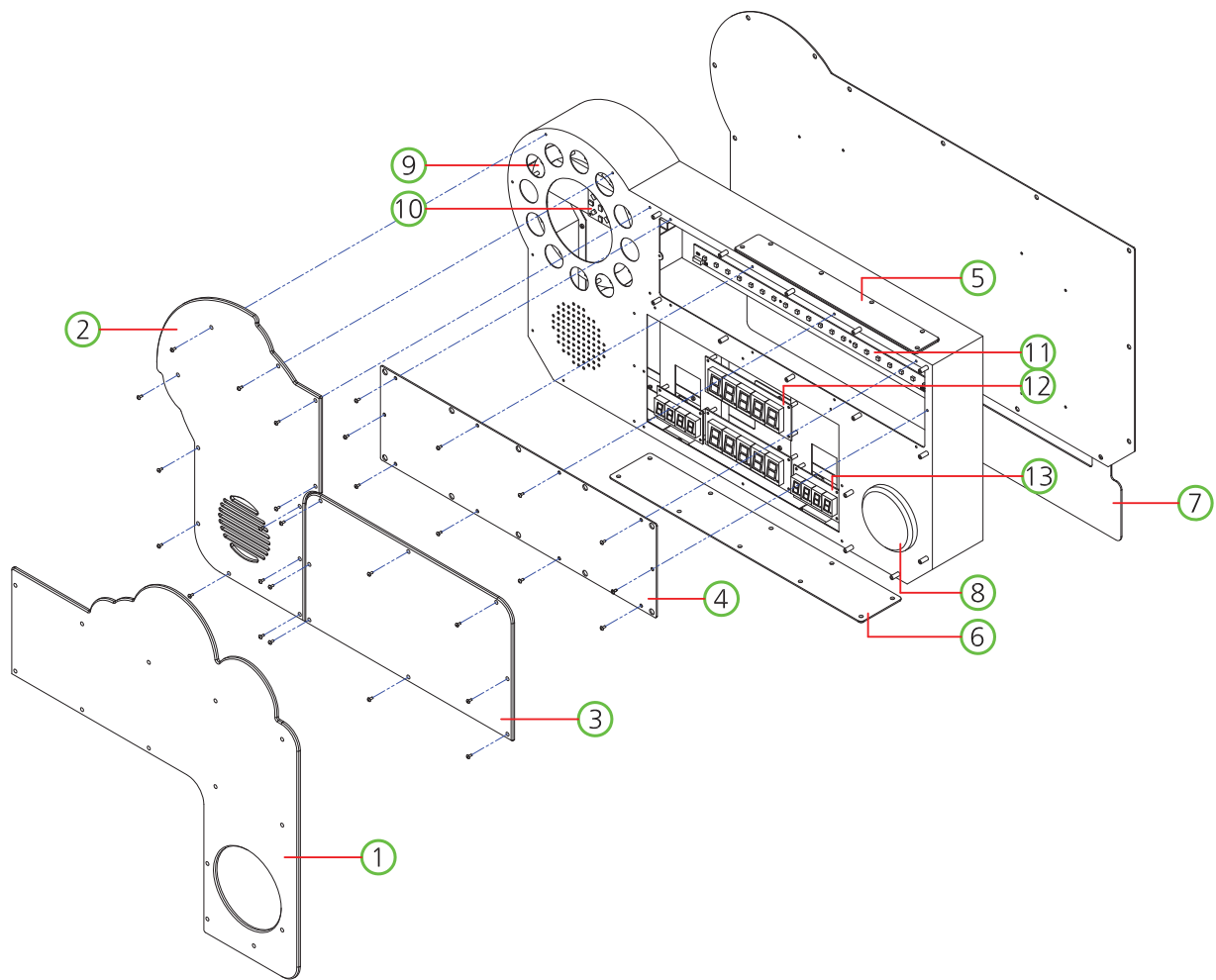
### 10-1. MAIN CABINET





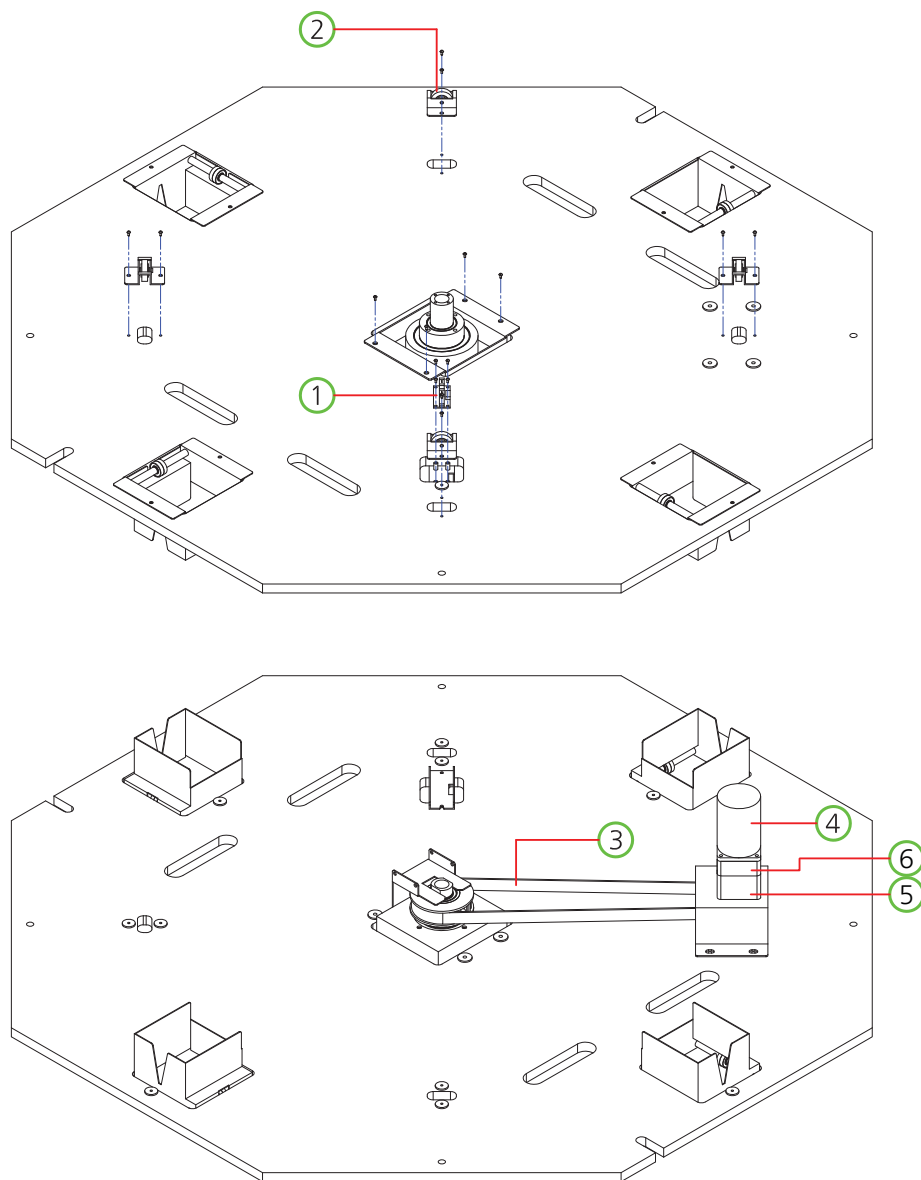
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BILLBOARD ASS'Y	-	1	-
2	REAR BODY ASS'Y	-	1	-
3	MAIN CABINET ASS'Y	-	1	-
4	BASE PANEL ASS'Y	-	1	-
5	FIELD PANEL ASS'Y	-	1	-
6	DOME MOLDING ASS'Y	-	1	-
7	ELECTRODE PLATE	-	1	-
8	FIELD COVER	-	1	-
9	TABLE ACRYL-D	ACRYL-8.0t	1	MLOBACR004
10	TABLE ACRYL-C	ACRYL-8.0t	2	MLOBACR003
11	TABLE ACRYL-A	ACRYL-8.0t	1	MLOBACR001
12	TABLE ACRYL-B	-	1	-
13	TABLE ACRYL-E	-	1	-
14	COIN BOX ASS'Y	-	1	-
15	BUTTON PANEL ASS'Y	-	1	-
16	MAIN BOARD ASS'Y	-	1	-
17	COIN SELECTOR ASS'Y	-	1	-
18	ELEVATOR ASS'Y	-	1	-
19	BALL GUIDE BKT-C ASS'Y	-	1	-
20	BALL GUIDE BKT-A ASS'Y	-	1	-
21	TOP CORNER LED PCB ASS'Y	-	1	AFP20PCB004
22	RF MODULE PCB ASS'Y	-	1	-
23	SMPS ASS'Y	-	1	-
24	FRONT LOWER LIGHT ASS'Y	-	1	-
25	ROBOT ASS'Y	-	1	-

## 10-2. BILLBOARD



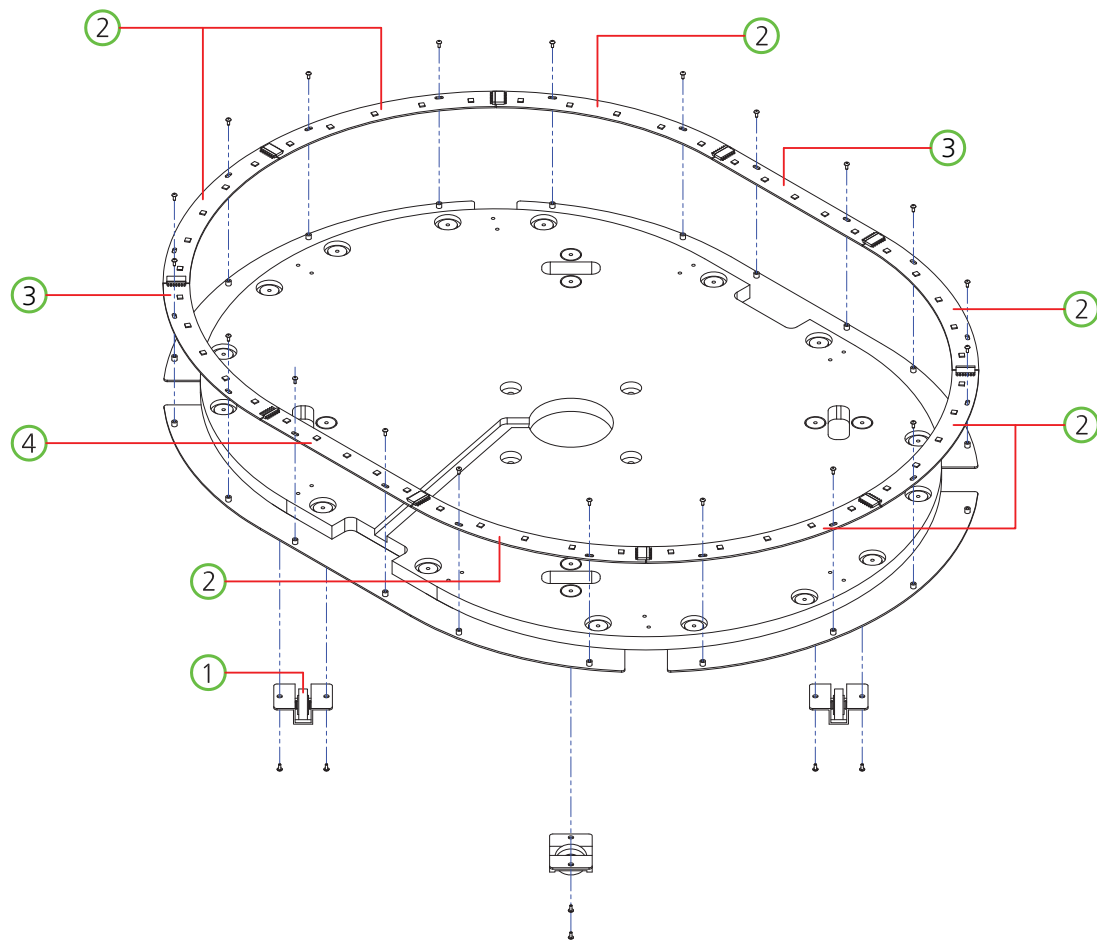
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BILLBOARD ACRYL	ACRYL-5.0t	1	MLOB0ACR008
2	BILLBOARD JACKPOT GAME ACRYL	ACRYL-5.0t	1	MLOB0ACR007
3	BILLBOARD FND ACRYL	ACRYL-5.0t	1	MLOB0ACR006
4	BILLBOARD INNER ACRYL	PET-2.0t	1	MLOB0ACR014
5	BILLBOARD TOP LIGHT ACRYL	ACRYL-3.0t	1	MLOB0ACR009
6	BILLBOARD BOTTOM LIGHT ACRYL	ACRYL-3.0t	1	MLOB0ACR010
7	HOW TO PLAY ACRYL	PET-2.0t	1	MLOB0ACR013
8	SPEAKER	MID4.5"+TW1/2" 8Ω	2	MZZZ0SPE021
9	JACKPOT GAME LED PCB ASS'Y	-	2	ALOB0PCB004
10	SPEAKER LAMP PCB ASS'Y	BLUE	1	APUF0PCB001
11	BILLBOARD LED PCB ASS'Y	WHITE TYPE	2	ASUP0PCB001
12	JACKPOT FND PCB ASS'Y	-	2	ADOS0PCB005
13	FND PCB ASS'Y	-	2	AWID0PCB004

## 10-3. BASE PANEL



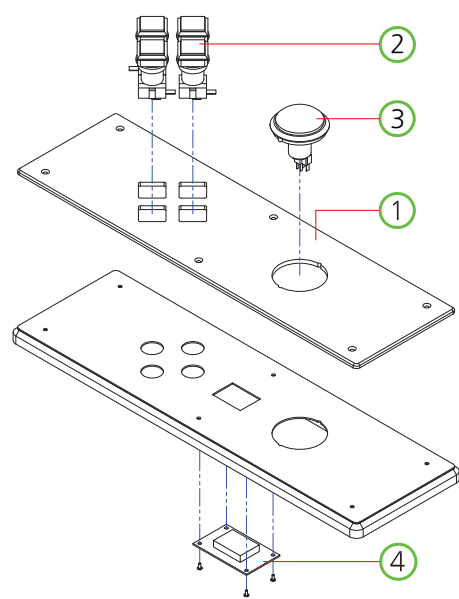
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	SENSOR PCB-2 ASS'Y	-	1	-
2	WHEEL SUPPORT ROLLER ASS'Y	-	4	-
3	TIMMING BELT	400H-075	1	MZZZ0BEL015
4	DC MOTOR	K6D-12V-15W	1	MZZZ0MOT032
5	GEAR HEAD	K6D-30:1	1	MZZZ0GEA001
6	DECIMAL GEAR HEAD	K6G10BX	1	MZZZ0GEA005

10-4. FIELD PANEL



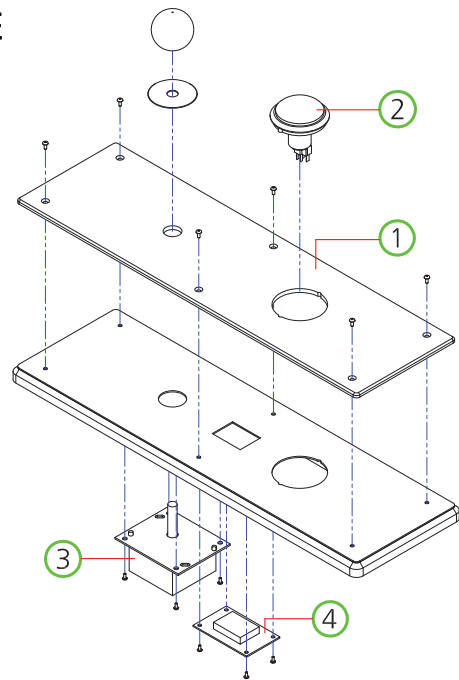
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	WHEEL SUPPORT ROLLER ASS'Y	-	4	-
2	FIELD LED PCB ASS'Y-B	-	8	ALOB0PCB003
3	FIELD LED PCB ASS'Y-C	-	1	ALOB0PCB007
4	FIELD LED PCB ASS'Y-A	-	1	ALOB0PCB002

10-5. BUTTON PANEL\_BUTTON TYPE



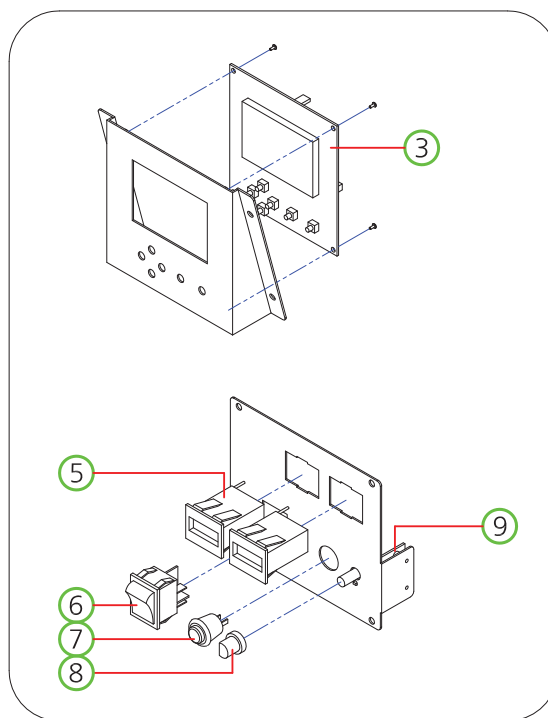
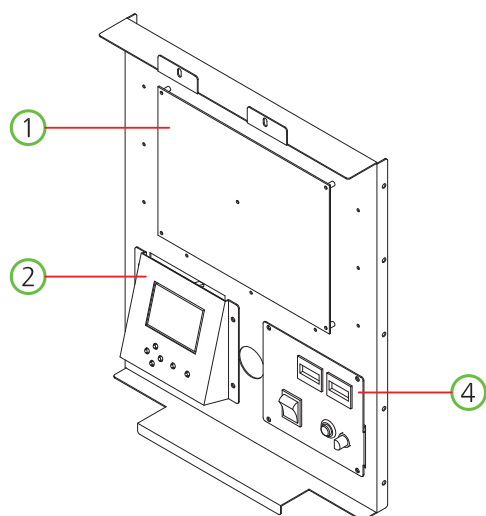
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BUTTON PANEL ACRYL_BUTTON TYPE	ACRYL-5.0t	1	MLOB0ACR017
2	BUTTON	AM1PB-26SH R12D	1	MMUM0BUT002
3	BUTTON SWITCH	BLC-BL-Φ63-BLUE	1	MZZZ0BUT090
4	FND PCB ASS'Y	-	1	AWID0PCB004

[ OPTION ]\_JOYSTICK TYPE



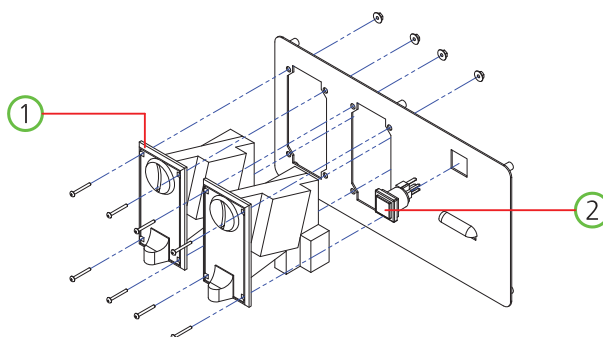
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BUTTON PANEL ACRYL_JOYSTICK TYPE	ACRYL-5.0t	1	MLOB0ACR011
2	BUTTON SWITCH	BLC-BL-Φ63-BLUE	1	MZZZ0BUT090
3	JOYSTICK	-	1	MZZZ0JOY011
4	FND PCB ASS'Y	-	1	AWID0PCB004

## 10-6. MAIN BOARD BKT



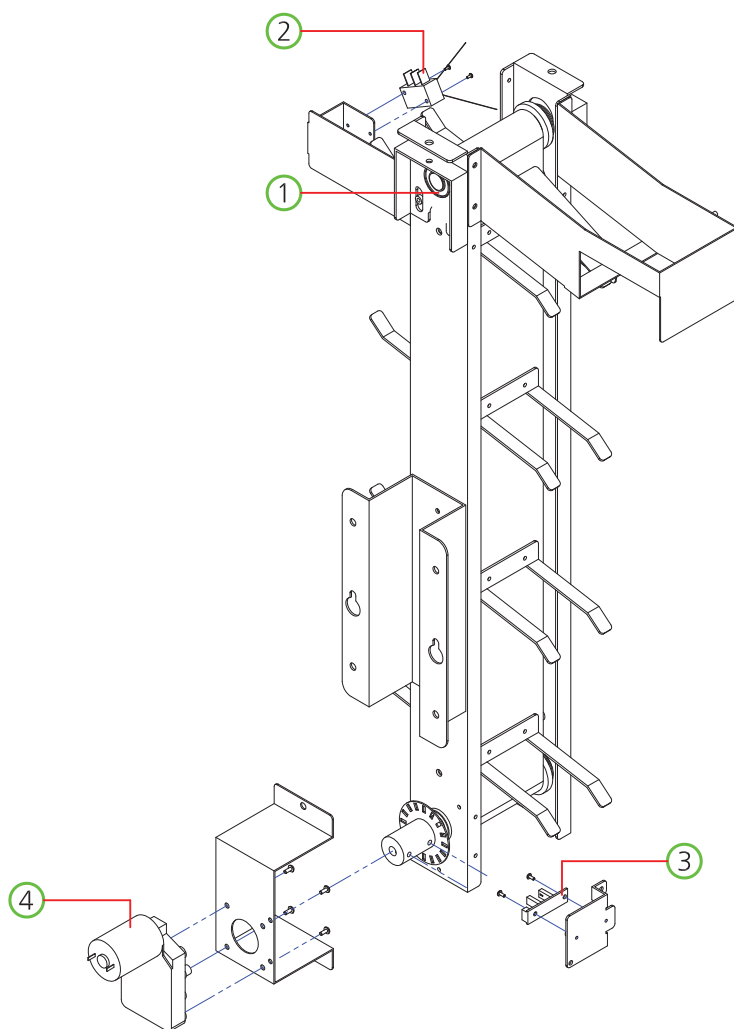
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	MAIN BOARD PCB ASS'Y	-	1	AICU0PCB001
2	[ SETUP LCD BKT PART ]		1	-
3	SETUP LCD PCB ASS'Y	-	1	AZZZ0PCB113
4	[ COUNTER BKT PART ]		2	-
5	COUNTER	AMMC-712(OA127CL)	1	MZZZ0COU002
6	ROCKER SWITCH	T-125 4P	1	MELE0SWI004
7	PUSH BUTTON SWITCH	DS-412R	1	MELE0PUS006
8	VOLUME KONB	-	1	MELE0VOL007
9	VOLUME PCB ASS'Y	-	1	AHM20PCB016

## 10-7. COIN SELECTOR



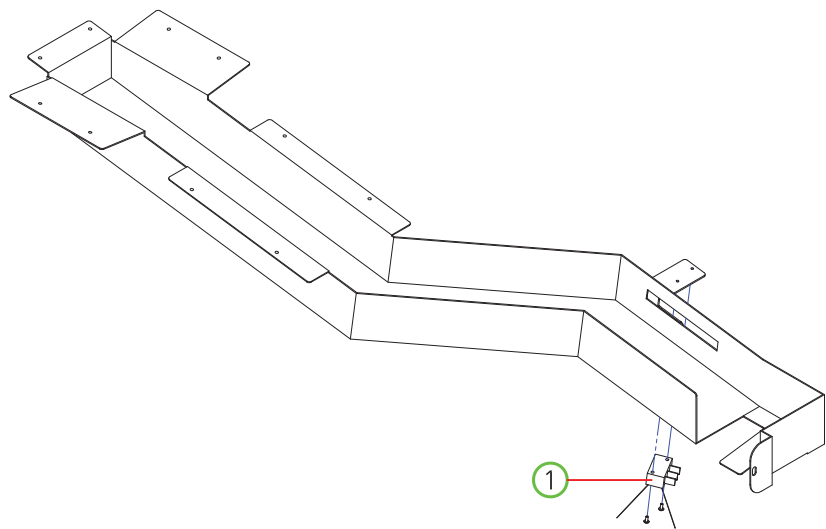
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	COIN SELECTOR	TW-130B	2	MZZZ0COS032
2	BUTTON SWITCH	-	1	MZZZ0BUT090

## 10-8. ELEVATOR



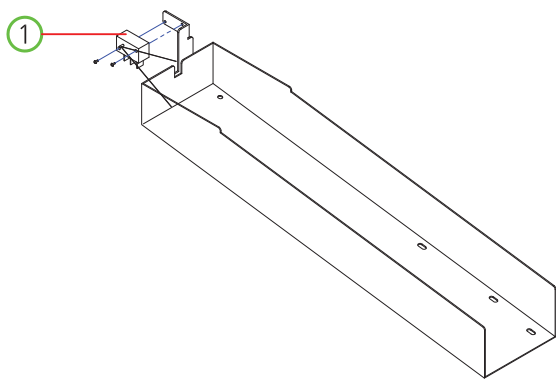
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	BEARING	6902NR	4	MZZZ0BEA080
2	MICRO SWITCH	CNR-05H-03	1	MELE0MIC002
3	PHOTO INT-1 PCB ASS'Y	-	1	ACIR0PCB011
4	DC MOTOR	KGE-3448-050-12V _1/204 F-TYPE	1	MZZZ0MOT072

10-9. BALL GUIDE BKT-C



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	MICRO SWITCH	CNR-05H-03	1	MELE0MIC002

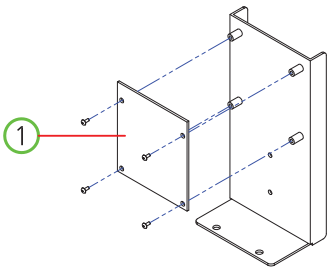
10-10. BALL GUIDE BKT-A



NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	MICRO SWITCH	CNR-05H-03	1	MELE0MIC002

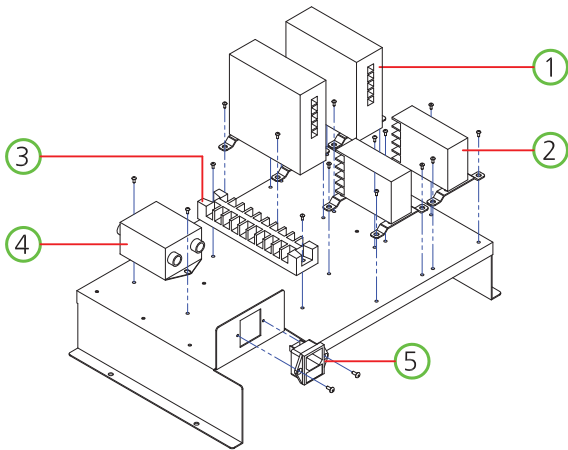


10-11. RF MODULE PCB



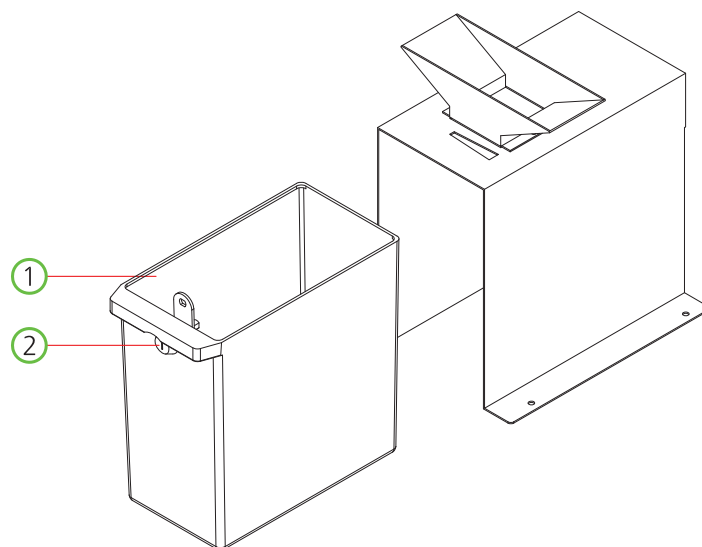
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	RF MODULE PCB ASS'Y	-	1	-

10-12. SMPS BKT



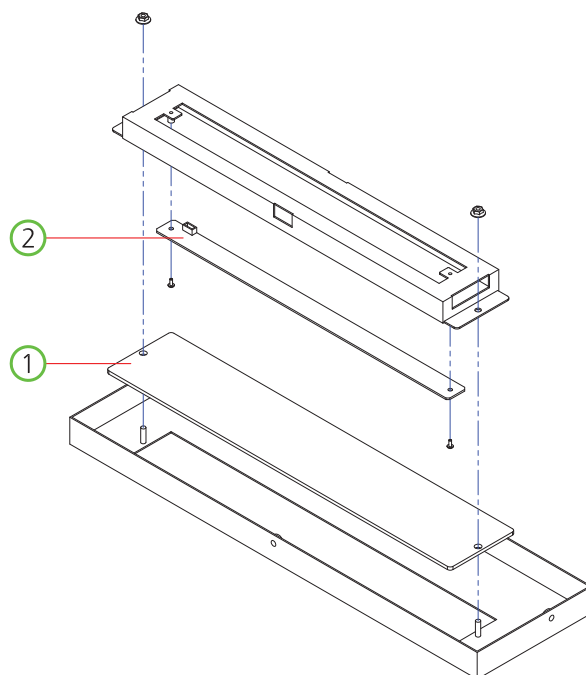
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	POWER SMPS	RS50-12V	2	MELE0SMP055
2	POWER SMPS	RS25-5V	2	MELE0SMP056
3	TERMINAL BLOCK	250V 10P	1	MELE0TEB003
4	NOISE FILTER	ES1-F10	1	MELE0NOI006
5	AC INPUT	DAC-13H	1	MELE0SWI015

## 10-13. COIN BOX



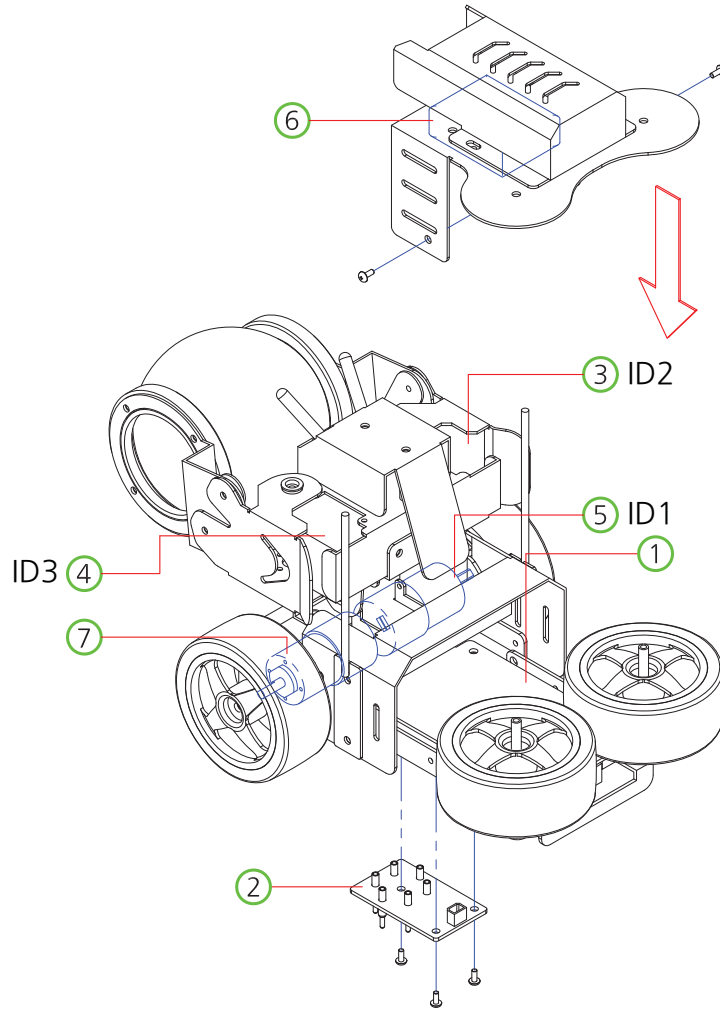
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	COIN BOX	-	1	MDRE0PLA007
2	KEY ASS'Y	6001	1	MZZZ0KEY075

## 10-14. FRONT LOWER LIGHT

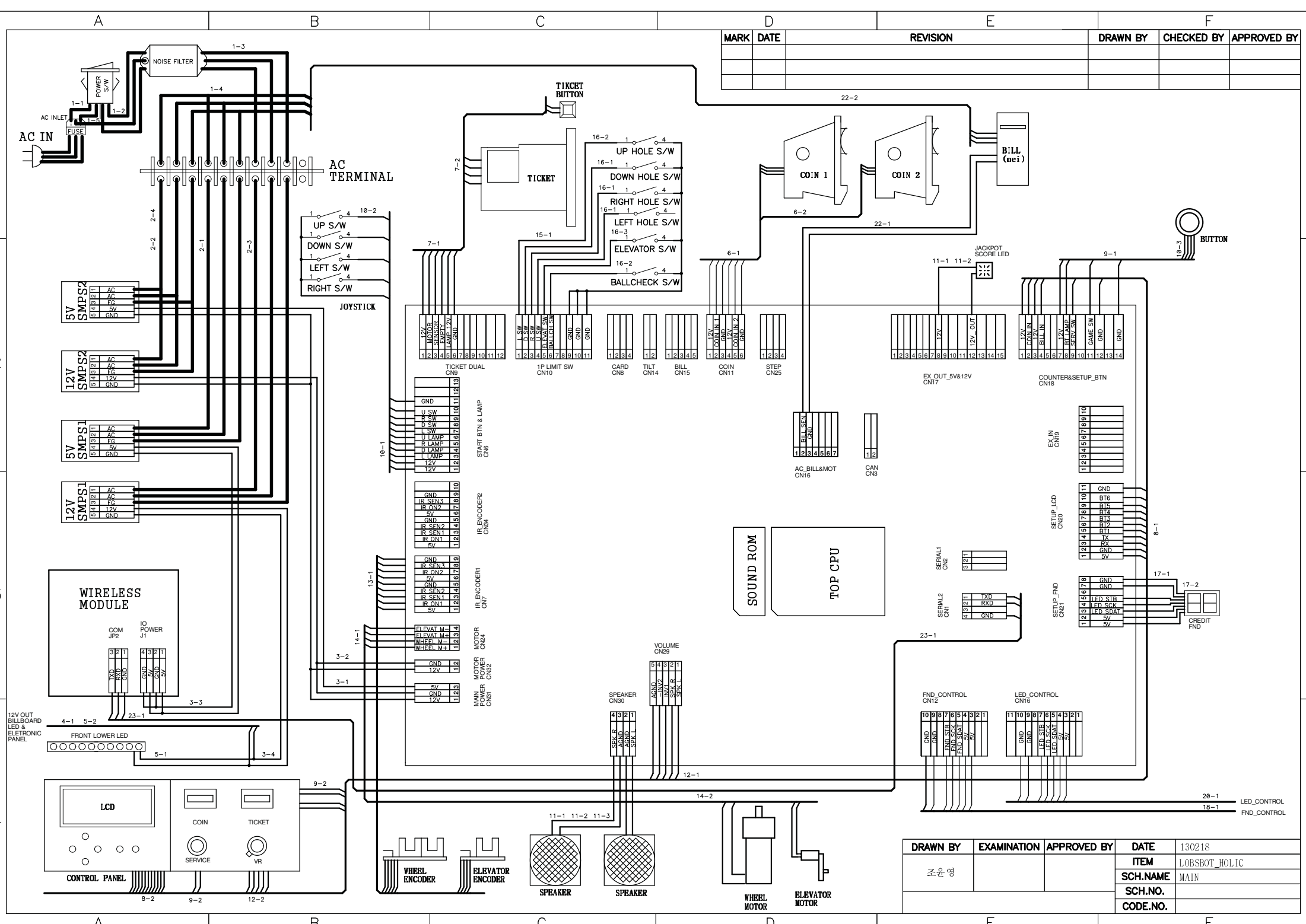


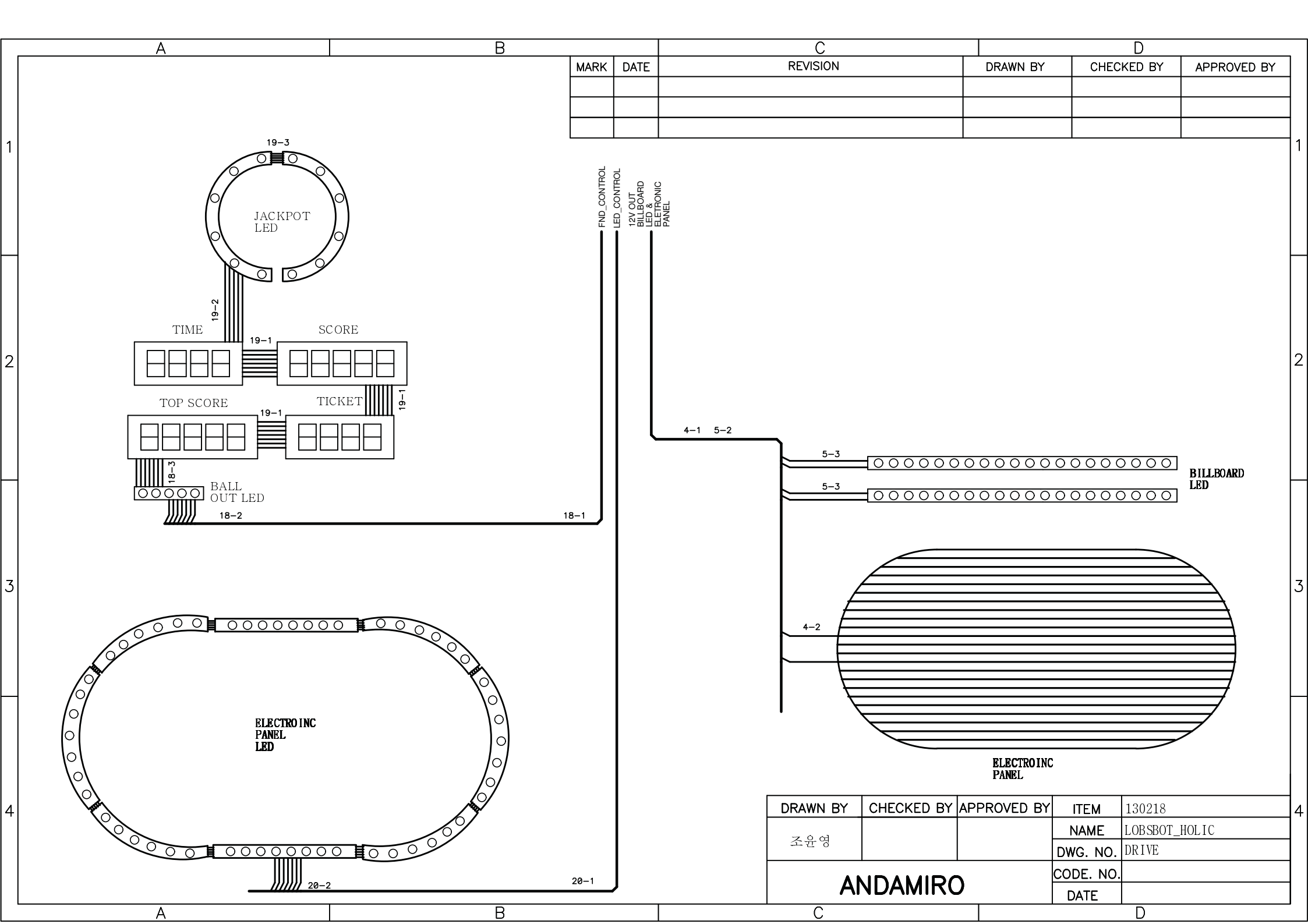
NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	FRONT LOWER LIGHT ACRYL	-	1	-
2	MIDDLE DOOR LED PCB ASS'Y	-	1	-

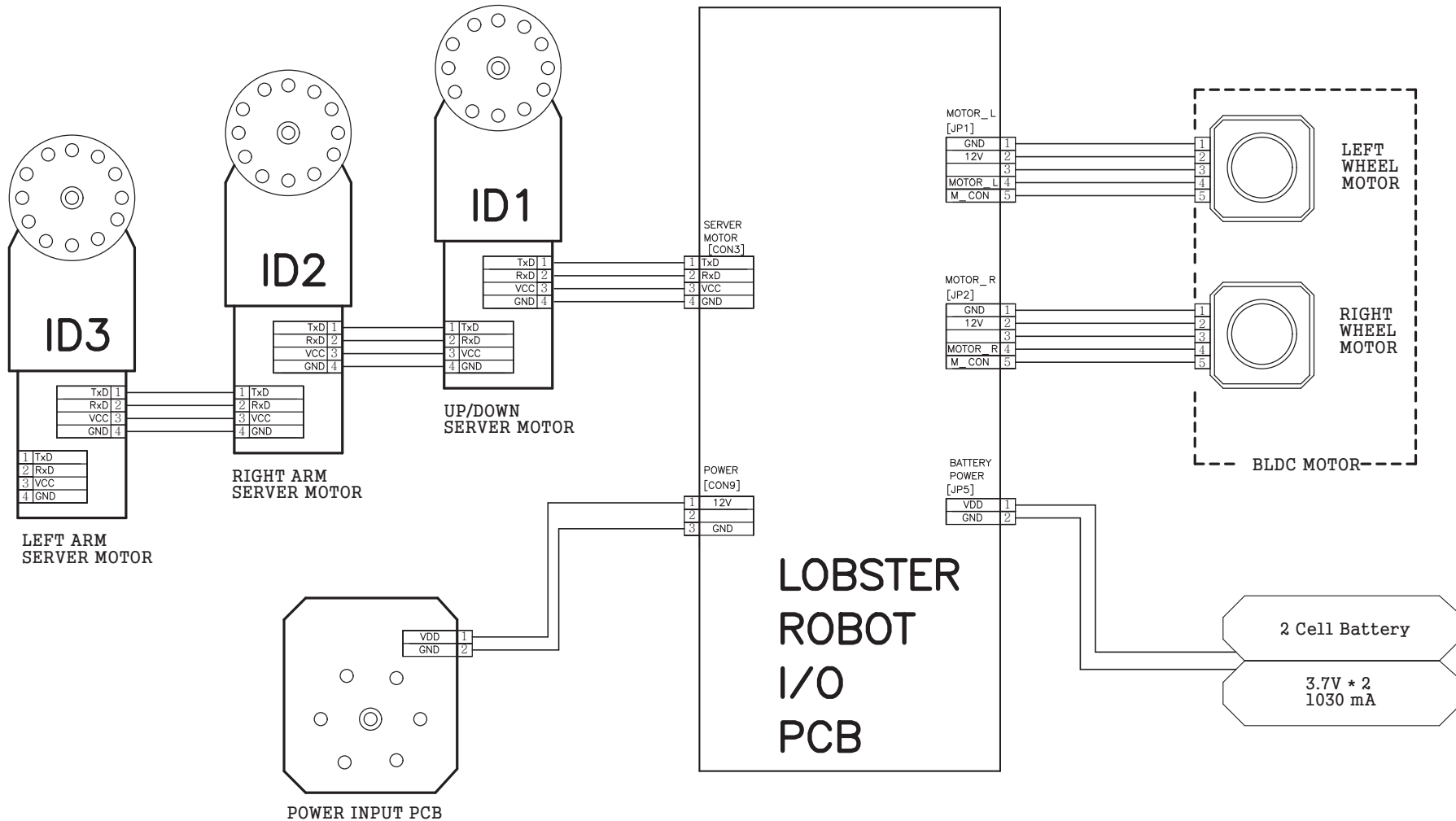
## 10-16. ROBOT

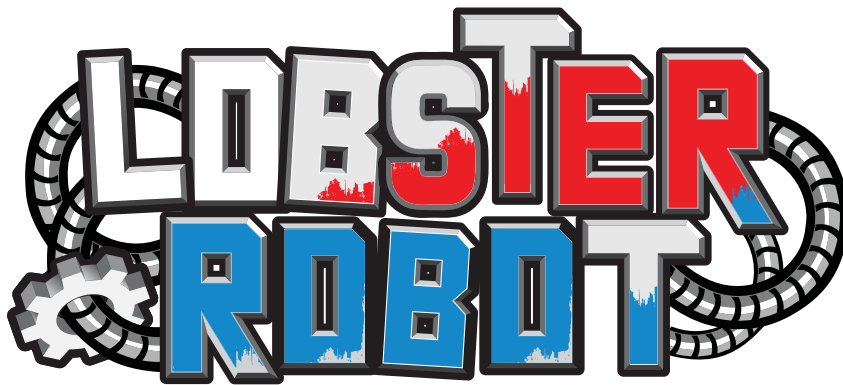


NO.	PART NAME	SPEC.	QUANTITY	CODE NO.
1	ROBOT I/O PCB ASS'Y	-	1	ALOB0PCB001
2	POWER PIN PCB ASS'Y	-	1	ALOB0PCB006
3	SERVO MOTOR	DRS-0101 [ID2]	1	MZZZ0MOT074
4	SERVO MOTOR	DRS-0101 [ID3]	1	MZZZ0MOT074
5	SERVO MOTOR	DRS-0101 [ID1]	1	MZZZ0MOT074
6	BATTERY	3.7V X 2-lithium ion-1030 mA	1	MLOB0ELE004
7	DC MOTOR	K22-0053-NB2419D1	2	MZZZ0MOT073









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Kyonggi-do, 410-834 Korea

**[FACTORY]** 72 Nochemgil, Ilsan-donggu koyang-si, kyonggi-do, 410-834 korea

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ANDAMIRO USA CORP.

17230 S. Main Street

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**[ADDRESS]** Gardena, California 90248 U.S.A.

Homepage <http://www.andamiro.com/>