

DOLL CASTLE



User Guide

Remark: Photos are for your reference only,
please regard the actual product as the truth.

Warning

- Please read this user guide carefully before operation to ensure the safe operation of this machine.
- Please keep this user guide in order to check when you need in the future.

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CHAPTER 1 OPERATION

SECTION 1 HOW TO PLAY

- 1.Insert coin and get credit,the sound will change to game music.
- 2.Use joystick to move claws above your selected object. When you move the joystick,the game time is countdown,and the light of [START] button is flashing.
- 3.Once you press [START] button or time's up(game play time is adjustable),the crane drives motor to lower down claws and then catch object.
- 4.If 'Catch in air' function is available,press [START] button again and the claws can catch item in the air.
- 5.After movement of catching,the claws rise up till it touches stop uping,then the claws move to exit area and release.

SECTION 2 GAME RULES

ITEM 1 DEMO STANDBY

Demo music is keeping playing for 3minutes every 5minutes when the machine is stand by.

ITEM 2 INSERT COIN

- 1.COIN signal lower than 20mms which is not credit in.
- 2.Sensing speed of inserting coin,it will be trouble when over 200mms.
- 3.Insert coin explain:
 - *If set to 1 coin to 1 credit,the displayer will display 1 credit after inserting coin.
 - *If set to 2 coins to 1 credit,it need insert 2 coins,then display 1 credit,when insert the first coin, the machine will play sound effect of receiving coin,coins counter will accumulate,but the displayer on the console will not display credit until the second coin is inserted.

ITEM 3 SHAKING MACHINE TEST

- 1.When a tilt is installed in machine,it plays'Don't shake the machine'when players shake the machine.
- 2.When the claw arms are closing,the arms will open and move to right-forward for 3 seconds then back to the home position when players shake the machine.

CHAPTER 2 MAINTENANCE AND ATTENTION

SECTION 1 FUNCTION TESTING

1.Setting test

A:Hold&pressing POWER ON+ test button and start on machine,it will take about 10seconds.

Enter to Set testing model and display PP

Item			Factory Defaults
0	Leaving	X	
1	Claw power		C1=50 C2=15 C3=20 C4=63
2	Gantry test	X	
3	Displayer test	X	
4	DIP SW Test	X	
5	Music Test	X	
6	Demo	X	
7	Reserve	X	
8	Reserve	X	
9	Win rate setting (Price)	1~999 (number of times)	10 number of times
10	Game time	10~90 Preset	60 Seconds
11	Reserve	X	
12	Reserve		
13	COIN setting	1~9	Insert 1 Credit 1
14	Reserve		
15	Inserting coin value	1~100	1
16	Reserve		
17	Reserve		
18	String length setting	0~99	27
19	Reserve	X	
20	Reserve		
21	Set to factory defaults	X	

After entering to setting test model,
Move joystick to forward then add the number.
Move joystick to back then reduce the number.

Start button is entering this item
TEST button is leaving this item

ITEM 0:Reboot machine.

When ITEM=0
Press START button then machine reboots.

ITEM=1:Claw power adjustment and test.

When ITEM=1
Press START button then will enter to Claw Power adjustment and test.
Move joystick to forward or back can change C1 C2 C3 C4 A5.
When display C1,press START button to enter testing and setting.
Claw closes,and display 35,C1 is factory defaults.
Move joystick to add the value.
Setting complete and press START button to leave.

Keep selecting C2 C3 C4 A5.
C2 C3 C4 adjustment is same with C1.
When select A5,press START button,display AU and flashing.
Claw can be controlled forward,back,left and right,now can test to catch toy and check the claw power whether is setting normally.
Press test button to leave this testing after setting complete.
When claw power C1 C2 C3 C4 are adjust completely,press test button to leave this item and keep selecting the next item to test.

ITEM2:Gantry testing

When ITEM=2
Press START button and enter to Gantry test.
After entering,display (a0)
Move joystick to forward and display(aF),gantry goes forward.
Move joystick to right and display (ar),gantry goes right.
Move joystick to back and display (ab),gantry goes back.
Move joystick to left and display(aL),gantry goes left.
Hold &pressing START button and move joystick to left,display (bU),the gantry pulls string.
Hold &pressing START button and move joystick to back,display (bd),the gantry puts string.
Press test button to leave this test item.

ITEM3:DOUBLE 8 DISPLAY TEST

When ITEM=3

Press START button then enter to double 8 DISPLAY test.

Press Test button and leave that test.

ITEM 4:MAINBOARD DIP SW TEST

When ITEM=4

Press START button and enter to Mainbaord DIPSW Test.

DIPSW1 ON OFF will orderly display on DISPLAY units digit and light up.

DIPSW2 ON OFF will orderly display on DISPLAY tens digit and light up.

For Example:

DIPSW2 8 ON ,then the A on tens digit DISPLAY will light up.

8 OFF,then the A on tens digit DISPLAY will light out.

7 ON ,then the B on tens digit DISPLAY will light up.

7 OFF,then the B on tens digit DISPLAY will light out.

1 ON,then tens digit DISPLAY will flash.

1 OFF,then tens digit DISPLAY will not flash.

Press Test button to leave that testing item.

ITEM5:MUSIC TEST

When ITEM=5

Press START button then enter to MUSIC TEST.

Move joystick forward to add the value.

Move joystick back to reduce the value.

Press Test button to leave that test item.

ITEM6: DEMO

When ITEM=6

Press START button and enter to DEMO.

Reboot the machine to leave this item.

ITEM 7:Reserve.

ITEM8:Reserve.

ITEM9:WIN RATE SETTING(Time of Price)

When ITEM=9

Press START button and enter to Win rate setting(Time of price).

Move joystick to left,Shifting

Move joystick to forward,Add value

Move joystick to back,Reduce value

Tens digit Units digit

1 0

Hundreds digit

H 0

Example:12 time

Tens digit Units digit

1 2

Hundreds digit

H 0

Example:101 time

Tens digit Units digit

0 1

Hundreds digit

H 1

Adjustment example:Set to 120 time

Move joystick to left,move to units digit and it flashes,then adjust to 0

Move joystick to left,move to tens digit and it flashes,then adjust to 2

Move joystick to left,move to hundreds digit and it flashes,then adjust to 0

120 time setting is complete.

Press START button to leave.

ITEM10:GAME TIME SETTING

Press START button and enter to game time.

Move joystick to forward and add the value

Move joystick to back and reduce the value

Press START button to leave that test item.

ITEM 11:Reserve

ITEM12:Reserve

ITEM13:COIN SELECTOR SETTING

When ITEM=13

Press START button and enter to coin selector setting.

Move the joystick to forward and add the value.

Move the joystick to left

Insert coin Coin

1 1

Press START button to leave that test item.

ITEM 14:Reserve

ITEM 15:COIN VALUE SETTING

When ITEM=15

Press START button and enter to coin value setting

Move joystick to forward to add the value.

Move joystick to left to shifting

ITEM 16:Reserve

ITEM 17:Reserve

ITEM18:LENGTH OF PUTTING STRING ADJUSTMENT

When ITEM=18

Press START button and enter to putting string adjustment.

Move joystick to forward to add the value.

Move joystick to back to reduce the value.

Press START button to test the length of putting string.

ITEM 19:Reserve

ITEM 20:Reserve

ITEM21:Restore factory defaults

When ITEM=21

Press START button and start to restore factory defaults.

CHAPTER 3 MACHINE FUNCTION ADJUSTMENT INSTRUCTIONS (DIP SW)

DIP SW1		1	2	3	4	5	6	7	8
Defending swing and delay to descend	YES	ON							
	NO	OFF							
Meter counting	Separate meter counting		ON						
	Combine meter counting		OFF						
Accumulated reserves	Reserve			ON					
	No reserve			OFF					
Amount displayer, display accumulated time	ON				ON				
	OFF				OFF				
DEMO MUSIC	OFF					ON			
	ON					OFF			
Show model	YES						ON		
	NO						OFF		
CREDIT Reserve	Reserve							ON	
	No reserve							OFF	
Catch in the air	YES								ON
	NO								OFF
Reserve	Fixed adjust	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

DIP SW2		1	2	3	4	5	6	7	8
Reserve	Fixed adjust	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

CHAPTER 4 ERROR CODE INSTRUCTIONS

Error code	Description	Checking Time	Trouble Shooting
Er 01	CPU Error	Power-on	1.Change U1 CPU 2.PCB Error
Er 02	Wire Releasing Error	Auto Demo	1.Check if rope on reel has been twisted together 2.Check if the stop-up SW is working well 3.Check if the air-plug of crane set is well-connected 4.Check if the J4 pin on CPU is well-connected 5.CPU error
Er 03	Wire Take-up Error	1.Power-on 2.During Game 3.Auto Demo	1.Check if the stop-up SW is loose when take-up 2.Check if the stop-up SW is working well 3.Check if the air-plug of crane set is well-connected 4.Check if the J4 pin on CPU is well-connected 5.CPU error
Er 04	Pay-out Sensor Error	Checking Anytime	1.Check if the sensor is too sensitive, if yes, please adjust the VR and make the LED to "DIM" status 2.Check if J5 sensor wire is well-connected 3.Sensor error 4.CPU error
Er 05	Stop-Back SW Error	During Game	1.Check if Stop-Back SW is working well 2.Check if the air-plug of crane set is well-connected 3.Check if the J4 pin on CPU is well-connected 4.CPU error
Er 06	Stop-Left SW Error	During Game	1. Check if the Stop-left SW is stopped when back to the origin 2. Check if the Stop-left SW is error
Er 07	Coin 1 Meter Error	Checking Anytime	1.Check if J7 Pin is well-connected 2.Check if the meter is error or the Pin wire is well-connected 3.CPU error
Er 10	Prize Meter Disconnected	Checking Anytime	1.Check if J7 Pin is well-connected 2.Check if the meter is error or the Pin wire is well-connected 3.CPU error
Er 22	Power-on Self-test Error	Power-on	1.Check if the crane movement is stable 2.Check if the meter is error or the Pin wire is well-connected 3.CPU error

CHAPTER 5 TROUBLE SHOOTING

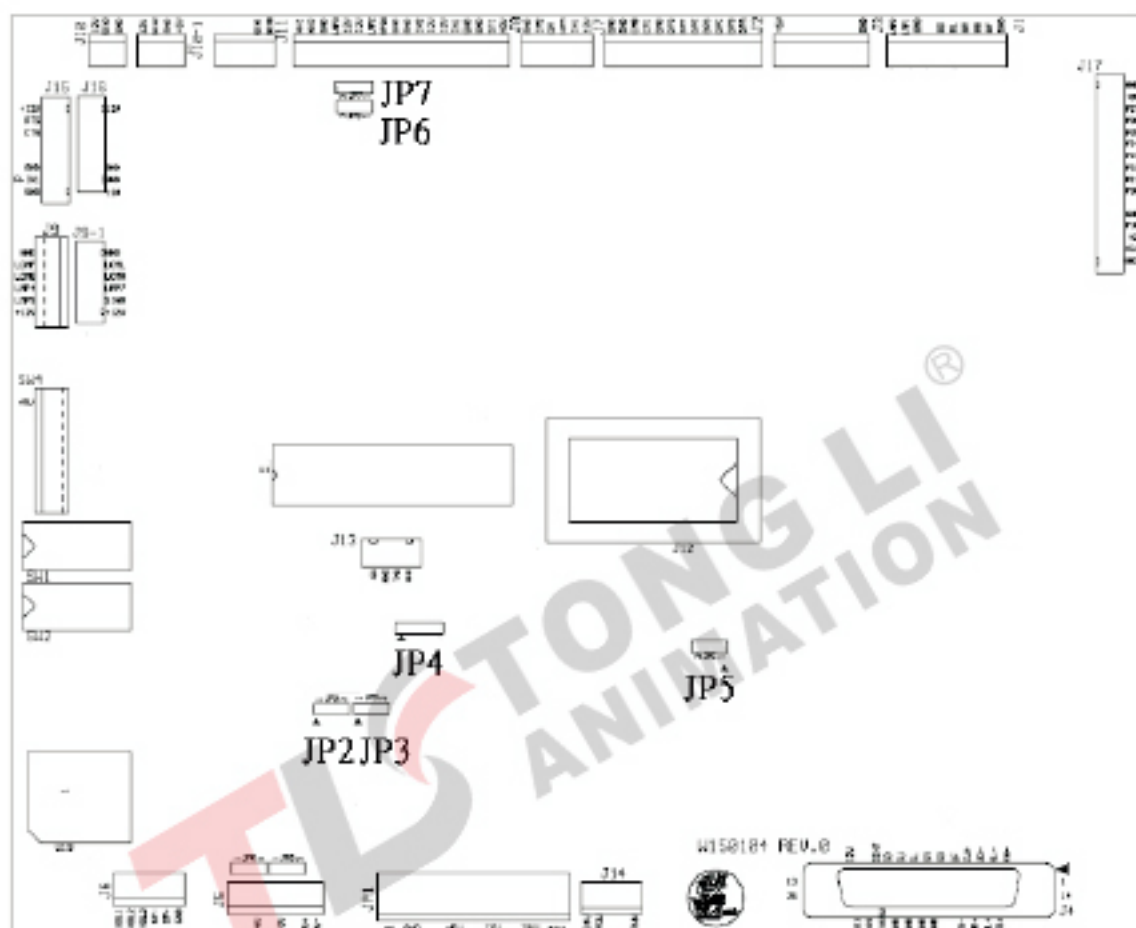
Items	Description	Solutions
Coin Inserting	When inserts coin to coin acceptor, machine makes a sound and remind, but the credits isn't shown on display.	1. Please check the coin in mode has been set as coins v. s. plays. 2. If the setting value has been changed, please modify setting value as your required.
	Coins/tokens couldn't be accepted	Comparison type coin acceptor: 1. Please check coins/ tokens as same as sample coin 2. Adjust the sensitivity and loose it 3. Check if the PIN wire is well connected, also check if the coin acceptor is input DC12V. 4. Check if the coin acceptor is error. Multi-Coin acceptor: 1. Check if the sample memory is correct, if yes, please follow the manual and reset it 2. Check if the PIN wire is well connected, also check if the coin acceptor is input DC12V.
Claw Power	Claw will open and couldn't close when pay-out and back to prize-out hole.	1. Claw power voltage of C3 is too low, please adjust to higher base on the goods' size and weight.
	Claw is closing once machine starts	1. The coil maybe short out, please replace it 2. Mainboard is broken.
	Claw couldn't be closed	1. Check if the CW on fuse board is broken 2. Check if the coiling of claw is well-connected. 3. Check if the claw powerboard or mainboard is working well.
Crane	Crane couldn't return to origin	1. Power off and reboot the machine, if the crane couldn't be back, please check if stop-back SW or stop-left SW is working well. It's possible that SW has been stuck, you could press pay-out and check if there is a click sound. Please also check if all wires are well-connected. 2. Check if the air-plug of crane set is well-connected 3. CPU Error
	The joystick couldn't control the crane to move forward or backward	1. Check if the joystick front SW and back SW is working well or the wire is well-connected 2. Check if the PCB J1 PIN is well connected 3. Check if the crane stop-forward SW or stop-back SW is working well and hasn't been stuck 4. Check if the front motor or back motor is working well, the wire has been well-connected, and the gears match well. 5. Check if PCB J4 PIN is well-connected. 6. Check if crane and machine connector has been well-connected
	The joystick couldn't control the crane to move to left or right	1. Check if the joystick left SW and right SW is working well or the wire is well-connected 2. Check if the PCB J1 PIN is well connected 3. Check if the crane stop-left SW is working well and hasn't been stuck 4. Check if the front motor or back motor is working well, the wire has been well-connected, and the gear match well. 5. Check if PCB J4 PIN is well-connected. 6. Check if crane and machine connector has been well-connected

Items	Description	Solutions
Claw Descending	When press button, the claw will not descend at once until game is over	1. Check if [Descend] button is normal 2. Check if [Descend] button wire is well-connected 3. Check if PCB J1 Pin is well-connected
	[Descend] button is normal, but can not descend	1. Check if the up motor or down motor wire is well-connected 2. Check if the up motor or down motor is working well, and the gears match well. 3. Check if the coiling is normal 4. Check if crane has been well-connected to PCB J4 PIN
	Press [Descend] button, the claw can not descend or only go down a little bit and claw close back to origin	1. Check if the reel is stuck 2. Check if stop-down is easy to trigger or broken
	Press [Descend] button, the claw return to origin without reaching to gifts	1. Check if coiling is too short 2. Check if the reel is stuck 3. Check if stop-down is easy to trigger or broken
Claw Catching	When claw finish catching and back to origin, claw does not open	1. Check if stop-back SW or stop-left SW is working well, or wires are well-connected
	After catching, the crane is back to origin and claw could not rise up	1. Check if stop-up SW can be triggered 2. Check if stop-up SW is working well or wire is well-connected 3. CPU Error
	After catching, the crane can not be back to origin and claw could not rise up either	1. Check if the up motor or down motor is working well, or wires are well-connected 2. Check if stop-up SW is working well or wire is well-connected 3. CPU Error

CHAPTER 6 WIRING DIAGRAM

MAINBOARD W150104

• Mainboard Connector Sketch



W150104 3.96mm (JP1) power	
1	GND
2	GND
3	GND
4	+5V
5	+5V
6	+12V
7	+12V
8	+24V
9	+24V
10	+48V

W150104 2.54mm (J11)		W9833 JP3	
1		1	IN2
2		2	IN4
3		3	EN04
4		X	
5		4	EN05

W150104 2.54mm(J5)	
7	Voltmeter +
8	Voltmeter -

W150104 2.54mm (J14)		W040316 JP1	
1		1	
2		2	
3		3	
4		4	
5		5	

W150104 2.54mm (J6)	
1	Sound VR 1
2	VR 2
3	VR 3
4	SP-
5	SP+

W150104 2.54mm (J10)	
1	GND
2	Pay-out Sensor Signal
3	12V

W150104 2.54mm (J7)	
1	12V
2	COIN 1 meter
3	Reserved
4	Output meter
5	

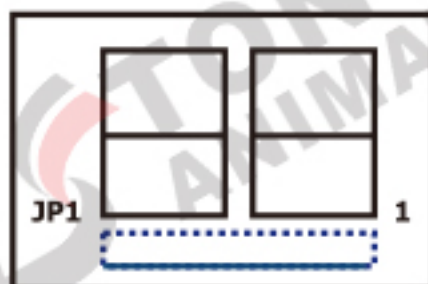
W150104 2.54mm (J1)	
1	GND
2	Joystick Forward
3	Joystick Backward
4	Joystick Right
5	Joystick Left
6	Descend
7	X
8	GND
9	Descending Light
10	Lamp2

W150104 2.54mm (J2)		W991907 JP1	
1	X		X
2		1	
3		2	
4		3	
5		4	
6		5	
7		6	
8		7	
9	X	8	X
10		9	
11		10	
12	X	11	X
13	X	12	X

W150104 2.54mm (J8)	
1	Joystick Control Desk
2	DOOR TEST
3	GND
4	GND
5	COIN 1
6	12V
7	12V
8	COIN 2
9	GND
10	GND
11	HPSW
12	HP
13	12V
14	12V
15	SSR
16	GND
17	Function Forbidden+
18	Function Forbidden-

W150104 2.54mm (J4)			
1	Forward and backward motor +	14	Forward and backward motor -
2	Left and right motor -	15	Left and right motor +
3	Up and down motor -	16	Up and down motor +
4	Claw power +	17	Claw power -
5	X	18	X
6	Stop-forward and stop-backward	19	GND
7	X	20	GND
8	Stop-left and stop-right	21	GND
9	Stop-up NC	22	GND
10	Stop-down NO	23	Approaching S
11	X	24	Switching
12	X	25	X
13	12V		

Display Board W991907(Front)



J1	Color	2.54 PIN-connect to mainboard W120208	
1	Brown	A	Connect to main board J5 Pin 1
2	Red	B	Connect to main board J5 Pin 2
3	Orange	C	Connect to main board J5 Pin 3
4	Yellow	D	Connect to main board J5 Pin 4
5	Green	E	Connect to main board J5 Pin 5
6	Blue	F	Connect to main board J5 Pin 6
7	Purple	G	Connect to main board J5 Pin 7
8		DP	Connect to main board J5 Pin 10
9	White	COM4	Connect to main board J5 Pin 9
10	Pink	COM3	Connect to main board J5 GND
11		COM2	
12		COM1	

CHAPTER 7 MAINTENANCE

Dear Customers:

Thanks for your purchasing from Tong Li! We will constantly improve our quality and service, and provide you better quality, high-efficiency, professional products and after-sales service. For protect your legitimate rights and interests, please read this manual detail, and knowing our service content, if the products and accessories were broken without according to this manual, we will not responsible for warranty, and only provide products and accessories for value.

1. Guarantee term.

Guarantee period of crane machines electronic components is 12 months from the purchasing. (Base on the PI date.).

2. The situation without guarantee.

After you purchase this product, if the machines were broken by below reasons, we can not provide guarantee according to this term, and will provide you service for value.

- (1) The whole machine or the parts is over the guarantee period.
- (2) LCD monitor surface is scuffing, weeping, fracture by human error.
- (3) User breached this manual, install, keeping and use wrongly causes to broken.
- (4) Fixing by person without our company authentication, user fixed (Wrong operation, scuffing, knock mark by human error, water-dampness, supply improper voltage.) causing to broken.
- (5) No purchase and guarantee voucher.
- (6) Guarantee and purchase voucher are modified by human.
- (7) The model and number are not match with matter.
- (8) The machine broken due to using the accessories without our authentication
- (9) The machine broken due to natural disaster (earthquake, fire).

3. Service type.

- (1) Once the products are broken down, please notice to us at once.
- (2) Products breakdown maintenance, please must send the unserviceable component to us, and provide the related purchasing voucher.

4. Reminder

- (1) The accessories during the fixing are belong to our company.
- (2) The service for value is containing cost of labor and fixing material.

5. Service and support.

- (1) Please review our website www.tonglianimation.com to get the latest information
- (2) Technical support and after-service tel: 86-20-23885899



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Version:Ver1.0

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