

## RM026 DORAEMON

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**RM026 Doraemon**

### **Manual**

Read carefully before use

**Content**

1. **Brief description**..... 3

2. **Caution**..... 3

3. **Accessories**..... 3

4. **Technical parameter**..... 4

5. **Principle and Structure**..... 4

    5-1. **The structure of whole machine**..... 4

    5-2. **Coin tower unit** ..... 5

    5-3. **Controller system** ..... 5

    5-4. **Ticket dispenser** ..... 6

6. **Display connection** ..... 9

7. **How to play**..... 9

8. **Operation** ..... 9

9. **Errors & troubleshooting** ..... 10

10. **DIP Switch** ..... 11

11. **Main board Pins**..... 12

## RM026 DORAEMON

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### 1. Brief description

Doraemon is one of the carnival items for indoor use. Players Insert coins then play. Try to hit the shrewmouse which come out then get 1 point for each one. Get the tickets according to the total points. Its character: easy to play, player just masters the simple skills. It is so funny that fit for different ages to play.

### 2. Caution

- Check the socket and wires before switching the power on. Check the voltage
- Switch the power off when the personnel are off duty.
- Switch the power off when inspecting and maintenance.
- Only qualified personnel can inspect and maintain it.
- Do not put in the machine in humidity places. Keep the surroundings clean.

### 3. Accessories

Name	Quantity	Remark
Manual	1	
(6*30)5A Fuse	2	
(5*20)3A Fuse	2	
(5*20)10A Fuse	2	
Shrewmouse	1	
IRF640	1	
Wire	1	
Hammer	1	

### 4. Technical parameter

- Dimensions:W945\*D710\*H1600 mm
- Power supply:AC220/110v

## RM026 DORAEMON

---

- Player:1

### 5. Principle and Structure

Comprises of coin tower unit, Controller system, payout unit, lights, etc

#### 5-1.The structure of whole machine(picture 1)



PIC 1

#### 5-2.Coin tower unit (picture 2)

The coin tower unit comprises coin selector and coin box. Coin box is used to collecting coins.

Its capability is 500-1000 coins.



PIC2

### 5-3. Controller system (picture 3)

The controller system comprises mainboard and periphery control circuit.

#### 1. Control system (Picture 3)

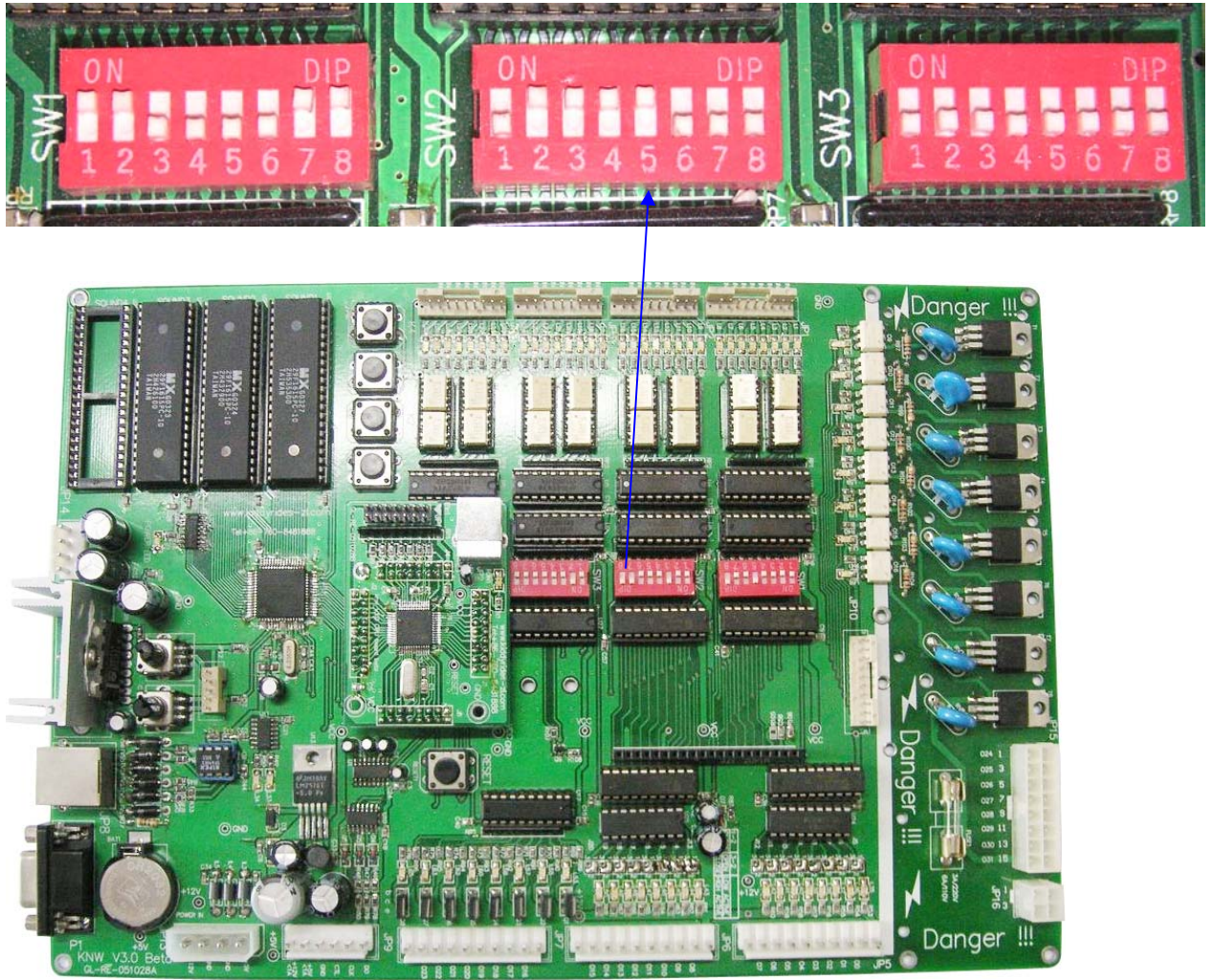
Mainboard: It is a program control system. It controls the work of all components.

SW1.SW2.SW3: Selection switches are used for adjusting the coins, tickets, the dispenser, the base tickets, the way of counting scores and music, etc. Press the restart button after adjustment. For more detail about the adjustment, refer to Mainboard Selection Switches and Their Functions.

Restart button: Press it to restart the machine.

Volume knob: Use the screwdriver to adjust the volume. It has been adjusted well and needn't adjusting in general instance.

## RM026 DORAEMON



PIC3

### 5-4. Ticket dispenser (picture 4, picture 5)

Ticket dispenser is controlled by mainboard. It dispenses the tickets corresponding to how many scores you would get.

#### 1. The rear of front door (picture 4)

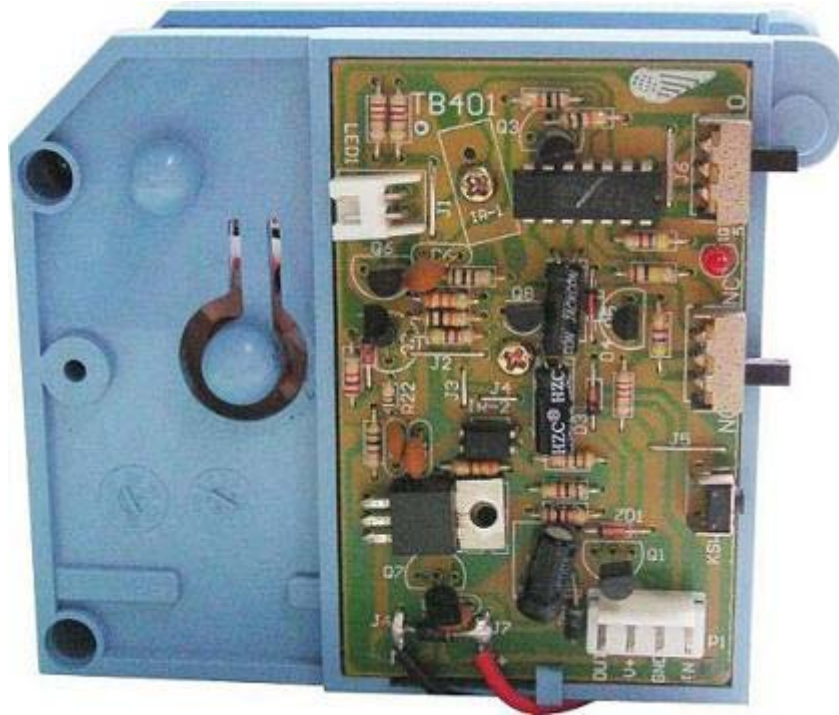
1. Using key to open the dispenser then you can see a ticket dispenser (there are two kinds, one is import, another is made in China). The color of blue is made in china, make the driver motor on state of "5", choosing state of "NO" from "NO, NC", then put the tickets in the tickets box, pressing the button " SW1" let one ticket come out. If it is

## RM026 DORAEMON

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an import one then does not need to adjust, just let one ticket come out. LED monitor will display error information and alarm no ticket, just repeat then press the button of "Token button" when no tickets.

2. Voltage of the dispenser is  $DC12V \pm 20\%$ , width for the ticket is 28mm-30mm, thickness for the ticket is 0.2mm-0.4mm



PIC4

### 2. Selection button (picture 5)

Record the total number of coin insertion since the machine has been used.

Ticket dispensing record: Record the total number of dispensed ticket since the machine has been used.

## RM026 DORAEMON

Token button: When the game has run out of tickets, replenish tickets and press this button. The game will then payout any owed tickets.

Test button: The test mode is entered from attract mode by pressing the test button during the course of 10 seconds count down of resetting.

Service: press this button for one time then the game start, but Coin insertion record does not work.

Volume: Used to adjust the speaker's sound level.



PIC5

### 6. Display connection

Refer to **Main board Pins and Their Functions** table.

### 7. How to play

1. Insert coin then play.
2. Hit the shrewmouse which come out then get 1 point for each one.
3. Get the tickets according to the total points.

## RM026 DORAEMON

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### 8. Operation

8-1. Check Accessories after buying.

8-2. Check the power if fit for this item. (AC220V OR AC110V)

8-3. Turn on the switch, all the shrewmouse come out then back for testing, after that the machine waited to play.

8-4. Insert coins then play, shrewmouse come out. Hit each shrewmouse then get 1 point, the tickets will be given according to the total points at the end.

8-5. Press the button for test. Press every button for test of each step until all of them to be tested then the machine waited to play.

8-6. Adjustment and function of Coin tower unit.

8-7. Function of Ticket dispenser.

### 9. Errors & troubleshooting

<b>Error description</b>	<b>Cause</b>	<b>Solution</b>
One of the shrewmouse not come out when playing game	<ol style="list-style-type: none"><li>1. Startup coil disconnected.</li><li>2. IRF640 of startup coil damaged.</li><li>3. No driver signal to main board.</li></ol>	<ol style="list-style-type: none"><li>1. Replace startup coil.</li><li>2. Replace IRF640.</li><li>3. Professional fix or back to the factory</li></ol>

## RM026 DORAEMON

All of the shrewmouse not come out when playing game	<ol style="list-style-type: none"> <li>1. Output AC90V transformer damage.</li> <li>2. AC90V of the rectifier bridge on driven PCB damaged</li> <li>3. 3A fuse of the driver board damage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the transformer.</li> <li>2. Replace rectifier bridge.</li> <li>3. Replace fuse.</li> </ol>
one of the shrewmouse can not be marked when playing game	<ol style="list-style-type: none"> <li>1. Score coil of one of the shrewmouse disconnected.</li> <li>2. LM324 of the mark driver board damage.</li> <li>3. Main board damage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace score coil.</li> <li>2. Replace LM324.</li> <li>3. Professional fix or back to the factory.</li> </ol>
No reaction after inserting coins	<ol style="list-style-type: none"> <li>1. No +12V to Coin selector.</li> <li>2. Coin selector damage.</li> <li>3. Coin selector jammed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fix for the +12V.</li> <li>2. Replace coin selector.</li> <li>3. Clear or fix.</li> </ol>
No tickets pay out and display "E1" with alarming when game over	<ol style="list-style-type: none"> <li>1. Ticket dispenser jammed or damage.</li> <li>2. No connection between ticket driver signal and main board.</li> <li>3. Main board damage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fix or replace ticket dispenser.</li> <li>2. Reconnection.</li> <li>3. Professional fix or back to the factory..</li> </ol>
No action when the machine turns on	<ol style="list-style-type: none"> <li>1. No AC220V</li> <li>2. Fuse damage.</li> <li>3. Switching power damage</li> </ol>	<ol style="list-style-type: none"> <li>1. Fix AC220V.</li> <li>2. Replace fuse.</li> <li>3. Fix or replace switching power.</li> </ol>
No sound	<ol style="list-style-type: none"> <li>1. Loudspeaker damage.</li> <li>2. TDA1519 damage.</li> <li>3. 9810 damage.</li> <li>4. No +12v to TDA1519</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the loudspeaker.</li> <li>2. Replace TDA1519</li> <li>3. Replace 9810.</li> <li>4. Fix for power +12</li> </ol>

### <Doraemon> DIP Switch and their function

Code	bit								Function
	8	7	6	5	4	3	2	1	
<b>SW1</b>	ON								Ticket out
	OFF								No ticket
		ON							Clear protected parameter
		OFF							No movement
			ON						Game for free
			OFF						Insert coin for game
				ON	ON	ON			Game time is 99s
				ON	ON	OFF			Game time is 90s
				ON	OFF	ON			Game time is 80s

## RM026 DORAEMON

				ON	OFF	OFF			Game time is 70s
				OFF	ON	ON			Game time is 60s
				OFF	ON	OFF			Game time is 50s
				OFF	OFF	ON			Game time is 40s
				OFF	OFF	OFF			Game time is 30s
							ON	ON	1 coin per time
							ON	OFF	2 coins per time
							OFF	ON	3 coins per time
							OFF	OFF	4 coins per time
SW2						ON	ON	ON	5 points/tickets
						ON	ON	OFF	10 points/tickets
						ON	OFF	ON	15 points/tickets
						ON	OFF	OFF	20 points/tickets
						OFF	ON	ON	25 points/tickets
						OFF	ON	OFF	30 points/tickets
						OFF	OFF	ON	40 points/tickets
						OFF	OFF	OFF	50 points/tickets
				ON	ON				5 PCS shrewmouse
				ON	OFF				6 PCS shrewmouse
				OFF	ON				7 PCS shrewmouse
				OFF	OFF				8 PCS shrewmouse
		ON	ON						Tickets for record-breaking =5
		ON	OFF						Tickets for record-breaking =10
	OFF	ON						Tickets for record-breaking =20	
	OFF	OFF						Tickets for record-breaking =30	
							ON	ON	Base ticket=0
							ON	OFF	Base ticket =1
							OFF	ON	Base ticket =2
							OFF	OFF	Base ticket =3

Error code: E1: alarm for no ticket

### <Doraemon> Main board Pins and Their Functions(GL-RE-051028A)

Port	Port NO.	Program Resource	Direction	Function
IN0	JP1		I	insert coin
IN1			I	
IN2			I	

## RM026 DORAEMON

IN3		I		
IN4		I	Feedback for calculation of ticket dispenser	
IN5		I		
IN6		I		
IN7		I		
IN8	JP2	I	shrewmouse #1mark(connect to shrewmouse mark.drive board JP1-1)	
IN9		I	shrewmouse #2 mark(connect to shrewmouse mark.drive board JP1-2)	
IN10		I	shrewmouse #3 mark(connect to shrewmouse mark.drive board JP1-3)	
IN11		I	shrewmouse #4 mark(connect to shrewmouse mark.drive board JP1-4)	
IN12		I	shrewmouse #5 mark(connect to shrewmouse mark.drive board JP1-5)	
IN13		I	shrewmouse #6 mark(connect to shrewmouse mark.drive board JP1-6)	
IN14		I	shrewmouse #7 mark(connect to shrewmouse mark.drive board JP1-7)	
IN15		I	shrewmouse #8 mark(connect to shrewmouse mark.drive board JP1-8)	
IN16	JP3	I		
IN17		I		
IN18		I		
IN19		I		
IN20		I		
IN21		I		
IN22		I		
IN23		I		
IN24	JP4	I		
IN25		I		
IN26		I		
IN27		I		
IN28		I		
IN29		I	Coin Switch(KEY2)	
IN30		I	Hardware switch for testing (KEY3)	
IN31	I	Switch of alarm for no ticket (KEY4)		
DO	JP9	O	display data output(DO)	connect to LED display board:main board →time → mark → record
CLK		O	display clock(CLK)	
CTL		O	display data lock(CTL)	
GND		P	Power supply	
+5V		P	Power supply(<1A)	
+12V	P	Power supply(<1A)		

## RM026 DORAEMON

+5V	JP13		P	5V power+
GND			P	Power “-”
GND			P	Power “-”
+12V			P	12V power+

### <Doraemon> Main board Pins and Their Functions(GL-RE-051028A)

Port	Port NO.	Program Resource	Direction	Function
1	JP14		O	Left channel”+”
2-3			P	GND
4			O	Right channel”+”
O0	JP5		O	Coin meter drive
O1			O	Ticket meter drive
O2			O	
O3			O	
O4			O	Ticket Dispenser drive
O5			O	
O6			O	
O7			O	
O8	JP6		O	#1 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-1)
O9			O	#2 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-2)
O10			O	#3 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-3)
O11			O	#4 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-4)
O12			O	#5 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-5)
O13			O	#6 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-6)
O14			O	#7 shrewmouse movement magnet drive signal connect to shrewmouse mark.drive board JP4-7)
O15			O	#8 shrewmouse movement magnet drive signal(connect to shrewmouse mark.drive board JP4-8)

## RM026 DORAEMON

O16	JP7		O	
O17			O	
O18			O	
O19			O	
O20			O	
O21			O	
O22			O	
O23		O		
O24	JP15		O	
O25			O	
O26			O	
O27			O	
O28			O	
O29			O	
O30			O	
O31		O		
L(1-3)	JP13		ACP	AC live wire connect
N(2-4)			ACP	AC neutral wire connect
Pin2	P1		O	
Pin3			I	
Pin5			P	GND
Pin1	JP8			
Pin2				
Pin3				
Pin6				

### <Doraemon> MARK.DRIVE BOARD CONNECTION (GL-RE-060306A)

Port	Port NO.	Program Resource	Direction	Function
1	JP1			#1 mark output of shrewmouse(connect to main boradJP2-1)
2				#2 mark output of shrewmouse(connect to main boradJP2-2)
3				#3 mark output of shrewmouse(connect to main boradJP2-3)
4				#4 mark output of shrewmouse(connect to main boradJP2-4)
5				#5 mark output of shrewmouse(connect to main boradJP2-5)
6				#6 mark output of shrewmouse(connect to main boradJP2-6)

## RM026 DORAEMON

7				#7 mark output of shrewmouse(connect to main boradJP2-7)	
8				#8 mark output of shrewmouse(connect to main boradJP2-8)	
1	JP2			connect to +5V	
2					
3				GND	
4					
1	JP3			#1 shrewmouse mark circle signal	connect to mark circle(GND)
2				#2 shrewmouse mark circle signal	
3				#3 shrewmouse mark circle signal	
4				#4 shrewmouse mark circle signal	
5				#5 shrewmouse mark circle signal	
6				#6 shrewmouse mark circle signal	
7				#7 shrewmouse mark circle signal	
8				#8 shrewmouse mark circle signal	
1	JP4			#1 connect to shrewmouse movement signal(connect to main boradJP6-1)	
2				#2 connect to shrewmouse movement signal(connect to main boradJP6-2)	
3				#3 connect to shrewmouse movement signal(connect to main boradJP6-3)	
4				#4 connect to shrewmouse movement signal(connect to main boradJP6-4)	
5				#5 connect to shrewmouse movement signal(connect to main boradJP6-5)	
6				#6 connect to shrewmouse movement signal(connect to main boradJP6-6)	
7				#7 connect to shrewmouse movement signal(connect to main boradJP6-7)	
8				#8 connect to shrewmouse movement signal(connect to main boradJP6-8)	
1	JP5			#1 shrewmouse movement circle	.another side connect to +90V, diode on the PCB
2				#2 shrewmouse movement circle	

## RM026 DORAEMON

3			#3 shrewmouse movement circle
4			#4 shrewmouse movement circle
5			#5 shrewmouse movement circle
6			#6 shrewmouse movement circle
7			#7 shrewmouse movement circle
8			#8 shrewmouse movement circle
9			+90V for shrewmouse movement circle power supply
10			
1	JP6		AC 9V to 12V for one side
2			AC 9V to 12V for another side
3			AC 90V for one side
4			
5			AC 9V for another side
6			

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