## ● 主机板3接口配线图

## ● Motherboard 3 interface wiring diagram

投币码表接口

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | 投币1 |
| 5 | 投币2 |
| 6 | 出表 |
| 7 | |
| 8 | 12V |
| 9 | 12V |
| 10 | 入表 |
| 11 | 12V |
| 12 | 光眼信号 |

**Coin code table interface**

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | Coin 1 |
| 5 | Coin 2 |
| 6 | Out of the table |
| 7 | |
| 8 | 12V |
| 9 | 12V |
| 10 | Into the table |
| 11 | 12V |
| 12 | Eye signal |

摇杆配线图

| | |
|---|---|
| 1 | GND |
| 2 | 前 |
| 3 | 后 |
| 4 | 右 |
| 5 | 左 |
| 6 | 下勾 |
| 7 | 按键灯 |
| 8 | +12V |

**Joystick wiring diagram**

| | |
|---|---|
| 1 | GND |
| 2 | before |
| 3 | Rear |
| 4 | right |
| 5 | left |
| 6 | Under the hook |
| 7 | Key light |
| 8 | + 12V |

天车配线图

| | | | |
|---|---|---|---|
| 1 | 前后马达+ | 14 | 前后马达- |
| 2 | 左右马达+ | 15 | 左右马达- |
| 3 | 上下马达+ | 16 | 上下马达- |
| 4 | 爪子线圈+ | 17 | 爪子线圈- |
| 5 | 后停 SW | 18 | GND |
| 6 | 前停 SW | 19 | GND |
| 7 | NC | 20 | GND |
| 8 | 左停 SW | 21 | GND |
| 9 | 上停 SW | 22 | GND |
| 10 | 下勾 SW | 23 | GND |
| 11 | NC | 24 | GND |
| 12 | NC | 25 | NC |
| 13 | NC | 26 | NC |

**Crane wiring diagram**

| | | | |
|---|---|---|---|
| 1 | Front and rear motor + | 14 | Front and rear motor - |
| 2 | Motor around + | 15 | Motor around - |
| 3 | Up and down the motor + | 16 | Up and down the motor - |
| 4 | Paw coil + | 17 | Paw coil - |
| 5 | After the stop SW | 18 | GND |
| 6 | Stop before the SW | 19 | GND |
| 7 | NC | 20 | GND |
| 8 | Left stop SW | 21 | GND |
| 9 | Stop SW | 22 | GND |
| 10 | Under the hook SW | 23 | GND |
| 11 | NC | 24 | GND |
| 12 | NC | 25 | NC |
| 13 | NC | 26 | NC |

设置平衡接口

| | |
|---|---|
| 1 | GND |
| 2 | 设置 |
| 3 | 平衡信号 |
| 4 | 服务键 |
| 5 | GND |

**Set the balance interface**

| | |
|---|---|
| 1 | GND |
| 2 | Set |
| 3 | Balance the signal |
| 4 | Service key |
| 5 | GND |

电压表接口

| | |
|---|---|
| 8 | 电压表+ |
| 9 | 变压表- |

**Voltmeter interface**

| | |
|---|---|
| 8 | Voltmeter + |
| 9 | Transformer - |

程式版本：NMENU169

**Program Version:** NMENU169

# 娃娃机

# CRANE MACHINE

# 操作说明书

# OPERATING INSTRUCTIONS

营业使用前请详读本说明书，并请妥善保存以备查用

Please read this manual carefully before use and keep it properly for future reference

# 机台使用操作说明书

## Machine operation manual


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# 营业方式 Business methods

## 游戏方法

1. 投币至可游戏的分数后，机台的演示音乐会变成游戏音乐，下勾按键灯开始闪烁。
2.移动摇杆方向来驱动天车到达您所选目标物上方后放开摇杆，当您开始移动摇杆后。液晶显示板将倒计时游戏时间。
3. 当您按下下勾按键时，或游戏时间已到(游戏时间可调整),此时天车会驱动马达将爪子放下，并抓取物品。此时下勾按键灯快速闪烁..
4.若程式有设定 “空中取物” 的功能，则在爪子未到底之前，您再按一次下勾按键就可以空中取物。
5.抓合后爪子 上升碰到顶点后，爪子停止上升，并移至出口处放开爪子。

## Game method

1. Coin to the game after the score, the machine demo music into the game music, thehook button light starts flashing.
2. Move the rocker to drive the crane to the top of your chosen target and release therocker when you start to move the rocker. LCD panel will countdown game time.
3. When you press the check mark button, or the game time has expired (game time canbe adjusted), the crane will drive the motor to lower the paw and grab the object.Under the hook button light flashes rapidly.
4. If the program has set the function of "air extract", before the paw is not in the end,you can press the down button again to extract the air.5. Catch the paw up After hitting the apex, the paw stops rising and moves to the exit torelease the paw.

## 游戏规则

DEMO待机

机台在无人游戏时会有待机音乐播放，待机音乐根据设定的广告音乐间隔循环播放

## Game rules

DEMO standby

The machine will play standby music when unmanned, standby music will be played back according to the preset advertisement music interval

## 投币

1.机台可由菜单设置几投几分。
2. coin 信号低于20毫秒不算投币信号。
3. 投币器投币速度建议调整到20ms以上。并设置成常闭
4.投币显示说明：
如果设定1投1分，则投币后操作板上的显示器会累加1
如果设定为2投1分，则必须投2个硬币显示器才会累加1,在投
第一个硬币时，机台只会发出接收钱币的音效，投币计数器会累加，但是液晶显示器不会累加，玩家必须再投第2个币才会累加游戏分数。

## Coin

1. How many settings can be set by the menu?
2. Coin signal is less than 20 milliseconds coin counting signal.
3. Coin coin speed is recommended to adjust to 20ms or more, coin signal selection is normally closed.
4. Coin Display Description:

- If you set 1 for 1 point, the display on the coin operated board will increment by one
- If you set 1 for 2 shots, you must cast 2 coin displays to accumulate 1. When the firstcoin is cast, the machine will only send out the sound of receiving coins, the coincounter will accumulate, but theLCD monitor will not accumulate Will accumulate,players must cast the first two coins to accumulate game scores.

## 摇台

1.机台如有安装乱规器，当玩家摇晃机台时，机台会发出"报警"的语音。
2.如果爪子 已经合爪，当机台侦测到摇台乱规时，机台会放开爪子，然后直接回原点。如果设置摇晃清分，会清除所有分数

## Shake platform

1. If the machine is installed foul device, when the player shaking the machine, themachine will issue a "warning" voice.
2. If the paw has clawed, when the machine detects the cradle foul, the machine willrelease the paw, and then directly back to the origin. If you set Shake Score, all scoresare cleared.

# 机台功能调整及注意事项

进入各项功能调整方法：

在游戏演示时按住主板上功能按键会进入功能调整菜单。如果机器在出错状态，必须按住主板上的功能按键再打开电源开关或者长按设置键才能进入功能调整菜单。上下左右按键调整数据，下勾键保存退出

菜单项目：

| 项次 | 项目 | 说明 |
|---|---|---|
| A 基础设置 | A1 语言 Language | 可设置菜单显示的文字是中文还是英文，预设是中文 |
| | A2 广告音乐 | 可设置开和关，当设置为开的时候可以设置音乐间隔时间，范围（0-30 分钟）预设为开，时间间隔为 0 分钟 |
| | A3 几币几局 | 币数范围（1-20），局数范围（1-10），预设 1 币 1 局 |
| | A4 币数保留 | 可设置开和关，当设置为开断电会保留剩余的币数和局数，如设置为关则不保留，预设为开 |
| | A5 游戏时间 | 范围（5-60 秒），预设 20 |
| | A6 模式选择 | 1. 弱抓力模式：该模式不会出现中奖电压，强力维持时间过后就转弱抓力。<br>2. 固定模式：如果游戏次数达到了设置的出奖概率会送一次中奖电压，不管有无中奖，都重新计算概率。<br>3. 随机模式：在设置的出奖概率内随机出奖一次。<br>4. 概率累积-固定：如果游戏次数达到了设置的出奖概率会送一次中奖电压，如果光眼检测到中奖，重新计算概率，如果没检测到中奖，下次游戏仍然会是强爪，如果连续 3 次光眼未检测到中奖，才重新计算概率。<br>5. 概率累积-随机：和概率累积固定的差别是在设定的中奖概率次数中随机一次送全程强爪，其他和 3 一样。<br>6. 贩卖模式：根据设置的出奖概率，液晶会显示保抓到礼品的次数和已玩次数，当投币到设置到的出奖概率是没有出奖的话，无需投币，且一直会出中奖电压，直至光眼检测到中奖。 |



| | | |
|---|---|---|
| A 基础设置 | A7 出奖概率 | 范围：（1-250），　预设 10 |
| | A8 礼品出口位置 | 可以设置为左前角或者左后角，预设左后角 |
| | A9 空中抓物 | 可设置开和关，预设为开 |
| | A10 背景音乐 | 可选择待机播放的音乐 |
| | A11 游戏音乐 | 可选择游戏时候播放的音乐 |
| | A12 光眼电平 | 可以设置为常开（N.O.）或者常闭（N.C.），预设常开（N.O.） |
| | A13 赠送票币 | 1. 取消赠送 ，此为预设值，没装彩票机必选<br>2. 中奖赠送　范围 1-50<br>3. 未中奖赠送　范围 1-50<br>4. 每局赠送 |
| | A14 摇晃清分 | 可选择开和关，默认开，摇晃机器会清除分数 |
| | A15 菜单方向 | 可选择开和关，会改变菜单选择的方向。 |
| B 抓力电压设置 | B1 自动调节抓力 | 将公仔放入爪子，按下勾键可以自动设置抓力 |
| | B2 测试抓力电压 | 可循环多次测试抓力电压是否正常，测试无需投币，测试不理想可在自动调节或者手动设置一下爪力电压。 |
| | B3 强抓力电压 | 范围：13V-48V，预设 27V |
| | B4 弱抓力电压 | 范围：2.0V-20V，预设 5V |
| | B5 弱抓后电压 | 范围：4.5V-30V，预设 12.8V |
| | B6 中奖电压 | 范围：4.5V-48V，预设 35V |
| | B7 强力维持时间 | 范围：0.1-3 秒，预设 0.8 秒，爪子抓取物品后转弱爪时间 |
| | B8 弱力维持时间 | 范围：0.1-3，预设 0.2，爪子抓取物品后转弱爪时间 |
| | B9 强变弱方式 | 范围：0-1 0=强爪时间后变弱爪 1=碰到微动变弱爪 |
| | B10 放线长度调整 | 范围：0.5-10 秒，预设 2.2 秒，上键可测试长度 |
| | B11 连续强力报错 | 范围：0-50 次　0 表示不报警，预设 0，连续出强爪累计次数，超过次数机器会报错“爪子过热” |
| | B12 收爪速度 | 爪子收爪的速度，数字越大越慢 |
| | B13 上升延时 | 爪子收爪以后延时一段时间再上升 |
| | B14 掉落延时比例 | 按设置的比例随机延长强抓力时间，延长时间为 B15 设置的时间加上强抓力时间 |
| | B15 掉落延时时间 | 随机延长的时间。和 B14 设置的比例相关 |

| | | |
|---|---|---|
| C 马达速度设置 | C1 前后速度 | 范围：1（快）-10（慢）预设 2 |
| | C2 左右速度 | 范围：1（快）-10（慢）预设 2 |
| | C3 上下速度 | 范围：1（快）-10（慢）预设 2 |
| D 测试 | 测试天车微动光眼 | 可以测试天车微动开关和光眼电平，分别用 0 和 1 表示 |
| E 工厂测试 | 用于工厂老化机器 | 按摇杆前进入测试，按下勾键退出，自动循环测试天车的运行情况 |
| F 资料清除 | F1 账目清零 | 选择是可清除入币和出奖记录 |
| | F2 当前局数清零 | 选择是清除游戏的局数 |
| | F3 概率结算清零 | 选择是清除当前的概率结算 |
| G 免费模式 | | 可设置开和关 ，设置为开可以免费进行游戏，关机需要重新设置 |
| H 恢复工厂设置 | | 如果选择是可以将机器的各项设置全部恢复到出厂的预设值 |
| I 查账 | | 可以查看入币，出奖，概率结算的统计数据 |
| J 语音测试 | | 可以测试语音模块是否工作正常 |

## 故障代码说明：

| 故障代码 | 故障说明 | 检查时机 | 处理方式 |
|---|---|---|---|
| 上限位故障 | 收线故障 | 1. 开机自检时<br>2. 游戏时<br>3. 工厂测试时 | 1. 检查当收线时，上停 SW 是否正确弹开。<br>2. 检查上停 SW 是否故障。<br>3. 天车组的空中接头是否有接触不良的情况。<br>4. 主板上的 J1 是否有松脱接触不良的情况。<br>5. 主板故障。 |



| | | | |
|---|---|---|---|
| 下限位故障 | 放线故障 | 工厂测试时 | 1. 检查绕线轮的线是否有乱绕的情况。<br>2. 检查下停 SW 是否故障。<br>3. 天车组的空中接头是否有接触不良的情况。<br>4. 主板上的 J1 是否有松脱接触不良的情况。<br>5. 主板故障。 |
| 光眼故障 | 光眼板信号故障 | 开机时 | 1. 请检查是否光眼板灵敏度过高，请调整灵敏度 VR，使光眼板 LED 处于“暗”的状态。<br>2. J5 电眼线是否脱落。<br>3. 光眼板故障。<br>4. 主板故障。 |
| 前限位故障 | 前停 SW 故障 | 1. 开机时<br>2. 游戏时<br>3. 工厂测试时 | 1. 检查前停 SW 是否故障。<br>2. 天车组的空中接头是否有接触不良的情况。<br>3. 主板上的 J1 是否有 松脱接触不良的情况。<br>4. 主板故障。 |
| 后限位故障 | 后停 SW 故障 | 1. 开机时<br>2. 游戏时<br>3. 工厂测试时 | 1. 检查后停 SW 是否故障。<br>2. 天车组的空中接头是否有接触不良的情况。<br>3. 主板上的 J1 是否有 松脱接触不良的情况。<br>4. 主板故障。 |
| 左限位故障 | 左停 SW 故障 | 1. 开机时<br>2. 游戏时<br>3. 工厂测试时 | 1. 检查后停 SW 是否故障。<br>2. 天车组的空中接头是否有接触不良的情况。<br>3. 主板上的 J1 是否有 松脱接触不良的情况。<br>4. 主板故障。 |
| 爪子过热 | 超过设置的连续强力次 | 本次游戏结束时 | 1. 请检查光眼板是否工作正常。<br>2. 如果没有光眼板，请设置为 0。<br>3. 当设置连续强力报错的次数不为零时，机器连续出强爪的次数超过设置次数即报该错误。或者把连续强力次数的数值设置大一点。 |

| | | | |
|---|---|---|---|
| | 数 | | 4. 主板故障。 |
| 赠送错误 | 分赠送错误A和B | 本次游戏结束时 | 1. 请检查彩票机工作是否正常。<br>2. 如果机器没有装彩票机，请设置为“取消赠送”。<br>3. 请检查彩票机和 主板连线。<br>4. 彩票机缺票。<br>5. 主板故障。 |

## 简易问题排除：

| 分类 | 问题点 | 检查与排除方法 |
|---|---|---|
| 投币 | 钱投进投币器，机台会发出接收钱币的音效，但是液晶屏局数没加 | 1. 请检查A3投币模式是不是设置为1投1玩，如果不是，币数会显示在右下角，当投到设定数值后局数就会加1。<br>2. 投币器请选择常闭电平<br>3. 主板故障。 |
| | 钱币投不进去 | 比较式钱道：<br>1. 请检查钱道所夹的采样硬币与您所要投入的硬币是否相符。<br>2. 可调整钱道的灵敏度，将其放松一些。<br>3. 请检查钱道与主板的连线，电源是否正确的供给DC12V。<br>4. 钱道故障。<br>多币式钱道：<br>1. 取样的记忆体有问题，请依照钱道所附之说明书重新设定。<br>2. 请检查钱道与主板的连线，电源是否正确的供给DC12V。 |
| | 爪子夹物后回出口时爪子会 | 1. 弱抓力电压设置的太低，请视物品的大小与重量调高弱抓力电压。 |



| | | |
|---|---|---|
| 爪力 | 开的合不起来 | |
| | 开机后爪子就夹住 | 1. 该爪子线圈可能已经短路，请更换。<br>2. 主机板故障。 |
| | 不会夹 | 1. 请检查爪子线圈的 卷线是否有接触不良或脱落。<br>2. 主板故障或者电源故障。 |
| 天车 | 不能归位 | 1. 关掉电源重新开机，若仍未归位，请检查前停SW，后停SW，左停SW是否正常，可能SW卡住，可用手按，放，听是否“嗒嗒”声音，并检查连线是否脱落。<br>2. 检查天车线的中间接头是否松脱接触不良。<br>3. 主机板故障。 |
| 天车 | 摇杆操作无法向前或向后 | 1. 摇杆之前，后SW是否故障或线端是否脱落。<br>2. 检查主板连接摇杆插座是否松动或没插好。<br>3. 天车之前停SW或后停SW是否故障或被卡住。<br>4. 前后马达故障或线端脱落，或齿轮无法啮合。<br>5. 检查主板连接天车之线路是否松动或没插好。 |
| | 摇杆操作无法向左或向右 | 1. 摇杆之左，右SW是否故障或线端脱落。<br>2. 检查主板连接摇杆插座是否松动或没插好。<br>3. 天车之左停SW是否故障或被卡住。<br>4. 左右马达故障或线端脱落，或齿轮无法啮合。<br>5. 检查主板连接天车之线路是否松动或没插好。 |
| 下勾 | 按下勾后爪子不会下勾，等到游戏倒数结束后才自动下勾 | 1. 检查下勾按键是否正常。<br>2. 下勾按键配线是否松动或脱落。 |
| | 下勾按键正常，但不能下勾 | 1. 检查上下马达线端是否脱落。<br>2. 检查上下马达是否故障或齿轮啮合是否正常。<br>3. 检查绕线是否正常。<br>4. 天车连接主板之线路是否松动或没插好。 |
| | 按下勾时爪子下不去或下一点点即抓合归位 | 1. 检查绕线轮是否被缠住了。<br>2. 下停SW是否容易触动或故障。 |

| | | |
|---|---|---|
| | 按下勾，爪子未到物品堆积处就抓合收线归位 | 1. 检查绕线是否太短。<br>2. 检查绕线轮是否被缠住了。<br>3. 下停 SW 是否容易触动或故障。<br>4. 放线长度时间调整的太短，可适当调长。 |
| 取物 | 取物后回到出口不放爪 | 1. 检查前后停 SW 或左停 SW 是否故障或线端是否脱落。<br>2. 检查天车连接主板之线路是否松动或没插好。 |
| | 取物后爪子不上升，天车即归位 | 1. 检查上停 SW 是否有误触动现象。<br>2. 上停 SW 是否故障或线端是否脱落。 |
| | 取物后爪子不上升，天车也不动 | 1. 检查上下马达是否故障或 脱落。<br>2. 上停 SW 是否故障或线端是否脱落。<br>3. 主机板故障。 |

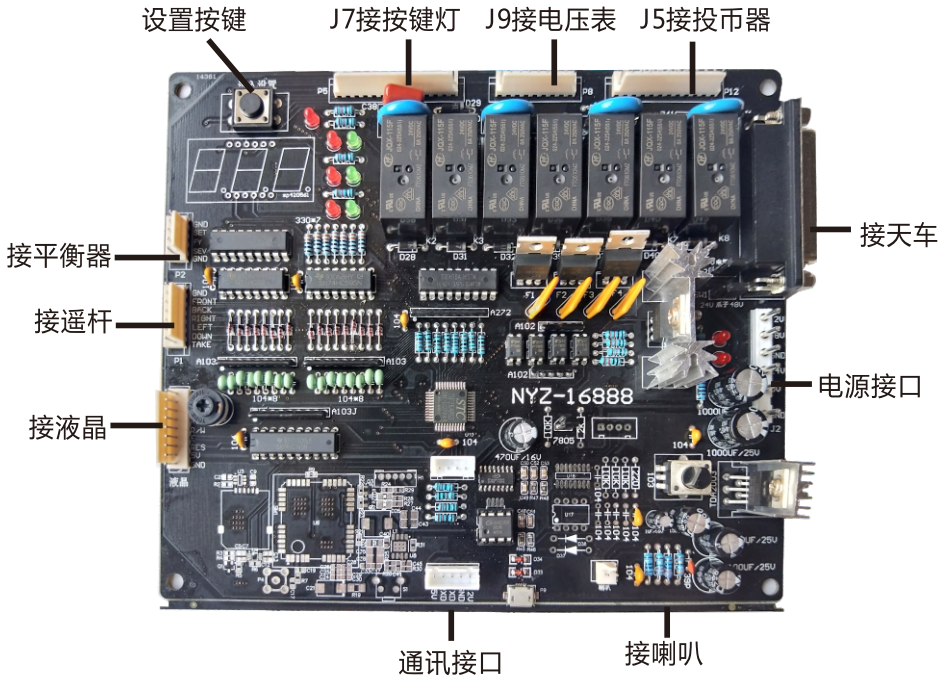
## 配线说明：

● 主机板 1 插座位置图



# 主板1配线说明

●主机板1插座位置图



## ●主机板1接口配线图

J5配线图

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | 投币1 |
| 5 | 投币2 |
| 6 | |
| 7 | 出表 |
| 8 | 12V |
| 9 | 12V |
| 10 | 入表 |
| 11 | 12V |
| 12 | 光眼信号 |

遥杆配线图

| | |
|---|---|
| 1 | GND |
| 2 | 前 |
| 3 | 后 |
| 4 | 右 |
| 5 | 左 |
| 6 | 下勾 |
| 7 | |

天车配线图

| | | | |
|---|---|---|---|
| 1 | 前后马达+ | 14 | 前后马达- |
| 2 | 左右马达+ | 15 | 左右马达- |
| 3 | 上下马达+ | 16 | 上下马达- |
| 4 | 爪子线圈+ | 17 | 爪子线圈- |
| 5 | 后停 SW | 18 | GND |
| 6 | 前停 SW | 19 | GND |
| 7 | NC | 20 | GND |
| 8 | 左停 SW | 21 | GND |
| 9 | 上停 SW | 22 | GND |
| 10 | 下勾 SW | 23 | GND |
| 11 | NC | 24 | GND |
| 12 | NC | 25 | NC |
| 13 | NC | 26 | NC |

平衡器接口配线图

| | |
|---|---|
| 1 | GND |
| 2 | 测试 |
| 3 | 平衡信号 |
| 4 | |
| 5 | 投币1 |

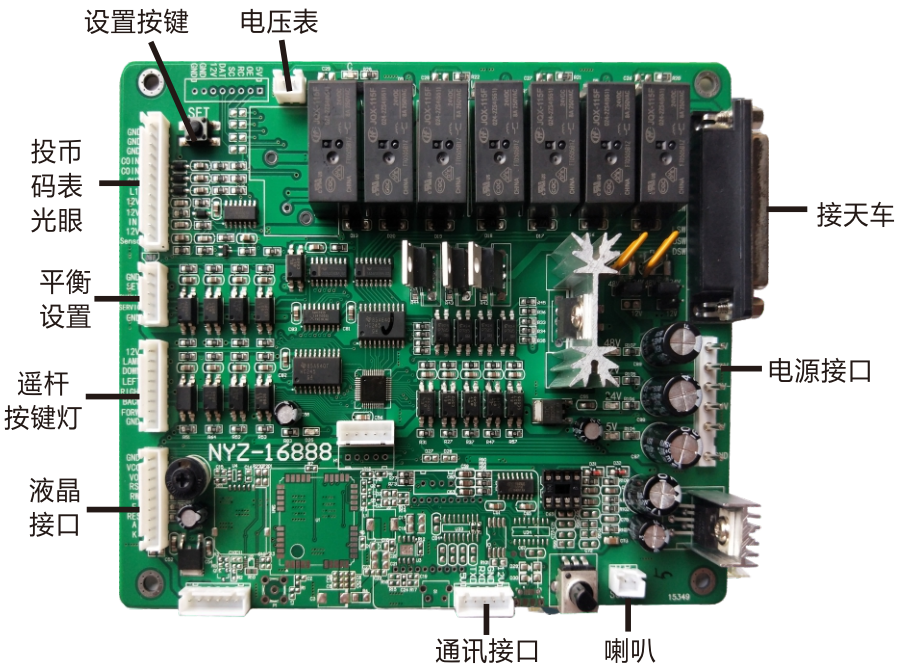
电压表配线

| | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | 电压表+ |
| 9 | 变压表- |



# 主板3配线说明

## ●主机板3插座位置图



# 定点甩爪设置说明和注意事项

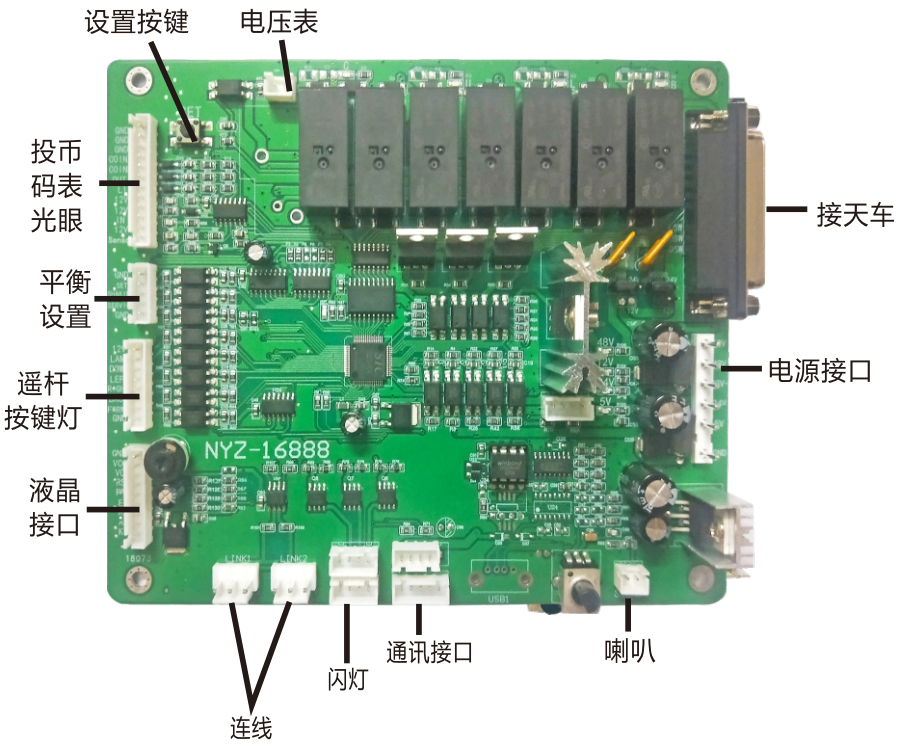
1.定点模式：
1.1固定模式-------游戏次数到了定点概率所设定数字本次游戏根据定点设置的XY位置切换到弱抓力电压。
1.2随机模式-------在定点概率所设定数字内游戏随机根据定点设置的XY位置切换到弱抓力电压。
1.3关闭--------不使用定点功能。默认是关闭
2.定点概率：设置定点掉落出现的概率，出现时机和定点模式相关。
3.左右宽度限定：此参数用于设置天车最大的左右宽度，一定要根据实际宽度设置，摇杆下可以切换加减数据的大小，摇杆向上自动测试设置的距离，如果测试差别较大，需要根据测试的位置调整宽度的大小并再次测试。
4.左右掉落点X:此参数设置左右掉落点的位置，摇杆下可以切换加减数据的大小，摇杆向上自动测试移动到设定的右掉落点，摇杆左右加减数据。
5.前后掉落点Y: 此参数设置前后掉落点的位置，摇杆下可以切换加减数据的大小，摇杆向上自动测试移动到设定的前后掉落点，摇杆左右加减数据。
6.甩爪频率：此选项是用来检测摇杆摇动的快慢，设置的数字越小摇动的越快才会判定是在甩爪。
7.甩爪次数：设置摇杆超过甩爪频率摇多少次触发甩爪电压
8.甩爪电压：当玩家超过设置的甩爪频率摇动摇杆的次数超过设置的甩爪次数，这局游戏下抓的电压即是设置的甩爪电压，该电压设置应该低一点。尽量不让抓起娃娃。

**注意事项**
1.定点的位置是根据天车电机运行的时间来计算的，由于物理上的原因，存在一些误差，并且随着摇杆摇动的次数的增加，误差会随之放大，所以限定了摇杆摇动的次数，游戏的时候摇杆前后左右摇动超过一定数据会取消定点掉落。
2.左右和前后的掉落点设置要离出物口稍微远一点，因为从松爪到掉落需要一定的时间，并且要根据所抓物品的不同，设置好弱抓力电压，并尽量不要用容易卡爪的物品，否则会影响游戏的概率，出现误中奖。
3.调整了前后左右马达速度必须重新设置左右宽度限定，左右掉落点X和前后掉落点Y。
4.设置好甩爪相关参数后，可在B项抓力电压设置菜单里面的测试抓力电压检测设置的甩爪参数，快速摇动摇杆，当机器检测到甩爪屏幕会显示检测到的甩爪次数。可根据这个适当调整参数，能尽量避免误判。



# 主板7连线板配线说明

●主板7连线板插座位置图



# Machine function adjustment and precautions

## Into the function adjustment method:

Press and hold the function key on the motherboard during the game demo to enter the function adjustment menu. If the machine is in an error state, you must press and hold the function key on the main board to turn on the power switch or long press the setting to enter the function adjustment menu. Up, down, left and right keys to adjust the data, the next key to save and exit.

| Item times | Project | Description |
|---|---|---|
| A basis Set | A1 Language Language | Can set the menu to display the text is Chinese or English, the default is Chinese |
| | A2 advertising music | Can be set on and off, when set to on, you can set the music interval, the range (0-30 minutes) is preset on, the interval is 0 minutes |
| | A3 several money a few games | Coin number range (1-20), Bureau number range (1-10), the default 1 currency 1 Bureau |
| | A4 coins reserved | Can be set on and off, when set to open the power will retain the remaining number of coins and the number of bureau, if set to off then do not keep, the default is on |
| | A5 game time | Range (5-60 seconds), preset 20 |
| | A6 mode selection | 1. Weak grip mode: This mode does not appear to win the voltage, strong force to maintain strength after the weakened grip.<br>2. The national mode: If the number of games reached the set probability of winning will be sent once the winning voltage, with or without winning, are re-calculated probability.<br>3. Random mode: randomly set a prize within the probability of winning a prize.<br>4. Probability Accumulation - Fixed: If the game reaches the set probability of winning, the winning probability will be sent once. If the light eye detects the winning, the probability is recalculated. If no winning is detected, the next game will still be strong. If The eyeball was not detected for three consecutive times and the probability was recalculated.<br>5. Probability Accumulation - Random: The difference between the cumulative probability and the cumulative probability is to send the full claw randomly in the set probability of winning probability. The others are the same as 3.<br>6.Trafficking mode: According to the set probability of winning, the LCD will show the number of times of holding the gift and the number of times it has been played. No coin will be dispensed when the winning probability is set, Win the voltage until winning the eye. |



| | | |
|---|---|---|
| A Basic Settings | A7 probability of winning | Range: (1-250), preset 10nning |
| | A8 gift exit location | Can be set as left front corner or left rear corner, preset left rear corner |
| | A9 caught the air | Can be set on and off, the default is on |
| | A10 background music | Can choose to play music in standby |
| | A11 game music | Can choose to play music when the game |
| | A12 Light level | Can be set to be normally open (N.O.) or normally closed (N.C.), preset normally open (N.O.) |
| | A13 gift ticket | 1. cancel donated this is the default value, did not install the machine must be selected<br>2. winning gift range 1-50<br>3. Unwinned gift range 1-50<br>Give away each board |
| | A14 shake the clear points | Select On and Off, the default is on, shake the machine will clear the score |
| | A15 menu direction | Selectable on and off, will change the direction of the menu selection |
| B grip voltage setting | B1 automatically adjusts grip | The doll into the claws, press the hook button can automatically set the grip |
| | B2 test grip voltage | Cycles can be repeated test whether the grip voltage is normal, the test does not require coins, the test is not ideal can automatically adjust or manually set the claw force. |
| | B3 strong grip voltage | Range: 13V-48V, preset 27V |
| | B4 weak grip voltage | Range: 2.0V-20V, preset 5V |
| | B5 weak grip voltage | Range: 4.5V-30V, preset 12.8V |
| | B6 jackpot voltage | Range: 4.5V-48V, preset 35V |
| | B7 strong support time | Range: 0.1-3 seconds, the default 0.8 seconds, paw grabbing items after the weakening claw time |
| | B8 weakness to maintain time | Range: 0.1-3, preset 0.2, paw grabbing items after the weakening claw time |
| | B9 strong weakening | Range: 0-1 0 = weak claw time later weak claw 1 = bump weaker claw |
| | B10 release line length adjustment | Range: 0.5-10 seconds, preset 2.2 seconds, the key can test the length |
| | B11 continuous strong error | Range: 0-50 times 0 means no alarm, preset 0, continuous cumulative number of claws, more than the number of machines will be reported "crab overheating" |
| | B12 Claw speed | Claws claw speed, the greater the slower the number |
| | B13 rise delay | After the paws are clawed, they rise again after a delay. |
| | B14 drop delay ratio | According to set the ratio of the time to extend the strong grip, extend the time set for the B15 plus a strong grip time |
| | B15 drop delay time | Random extension of time. It is related to the ratio set by B14 |

| | | |
|---|---|---|
| C motor speed setting | C1 before and after the speed | Range: 1 (fast) -10 (slow) preset 2 |
| | C2 speed around | Range: 1 (fast) -10 (slow) preset 2 |
| | C3 up and down speed | Range: 1 (fast) -10 (slow) preset 2 |
| D test | Test Crane micro-moving eye | Can test the microswitch and photoeye levels of the crane, indicated by 0 and 1 respectively) -10 (slow) preset 2 |
| E factory test | Used for factory aging machines | Press the rocker before entering the test, press the hook button to exit, automatic cycle test Crane's operation |
| F data clear | Used for factory aging machines | The option is to clear the entry currency and the prize record |
| | The current number of F2 is cleared | The selection is to clear the game's board number |
| | 3 Probability settlement cleared | The choice is to clear the current probability settlement |
| G free mode | | Can be set on and off, set to open for free games, shutdown need to reset |
| H Restore factory settings | | If you select Yes, you can restore all settings of the machine to the factory defaults |
| I check | | Can see the currency, the prize, the probability of settlement statistics |
| J voice test | | Can test whether the voice module works |

## Fault code description:

| error code | Fault description | Check the timing | Processing method |
|---|---|---|---|
| Upper limit fault | Line failure | 1. POST<br>2 game<br>3.Factory test | 1. Check when the closing line, the stop SW is opened correctly.<br>2. Check if SW is faulty.<br>3. Sky train air joints whether there is a bad situation.<br>4. Motherboard J1 loose loose contact with the situation.<br>5. motherboard failure. |
| Lower limit error | Line fault | Factory test | 1. Check if the thread of the reel is in disorder.<br>2. Check if the down stop SW is faulty.<br>3. Sky train air joints whether there is a bad situation.<br>4. Motherboard J1 loose loose contact with the situation.<br>5.Motherboard failure. |
| Optical eye failure | Light eye board signal failure | At boot time | 1. Please check whether the sensitivity of the optical eye board is too high. Please adjust the sensitivity VR so that the optical eye board LED is in a "dark" state.<br>2. J5 electric eye line is off.<br>3. Light eye board failure.<br>4. Motherboard failure. |
| Front limit fault | SW stop before failure | 1. When starting up 2 game<br>3.Factory test | 1. Check before stopping SW is faulty.<br>2. sky car group air joints if there is bad contact situation.<br>3. Motherboard J1 loose loose contact with the situation.<br>4.Motherboard failure. |
| Rear limit fault | After stop SW fault | 1. When starting up 2 game<br>3.Factory test | 1. Check whether the stop SW is faulty.<br>2. sky car group air joints if there is bad contact situation.<br>3. Motherboard J1 loose loose contact with the situation.<br>4. Motherboard failure. |
| Left limit fault | Left stop SW fault | 1. When starting up 2 game<br>3.Factory test | 1. Check whether the stop SW is faulty.<br>2. sky car group air joints if there is bad contact situation.<br>3. Motherboard J1 loose loose contact with the situation.<br>4. Motherboard failure. |
| Overheated paws | Over the set continuous strength | At the end of this game | 1. Please check if the photo-eye board is working properly.<br>2. If there is no light eye plate, clear is set to 0.<br>3. When the number of consecutive strong error reports is not set to zero, the machine continues to output strong jaws more than the set number of times to report the error. Or set the value of consecutive strong times larger.<br>4.Motherboard failure. |

| | | | |
|---|---|---|---|
| Give a mistake | Points give the wrong A and B | At the end of this game | 1. Please check whether the lottery machine is working properly.<br>2. If the machine is not equipped with lottery machines, please set to "cancel donation."<br>3. Check the connection between the lottery machine and the motherboard.<br>4.Ticket machine ticket.<br>5.Motherboard failure. |

## Simple troubleshooting:

| classification | Problems | Check and eliminate methods |
|---|---|---|
| Coin | Money into the coin, the machine will send coins to receive the sound, but did not increase the number of LCD screen | 1. Please check the A3 coin mode is set to 1 vote 1 play, if not, the number of coins will be displayed in the lower right corner, when the vote after the set value will increase the number of 1.<br>2. Coin Please select the normally closed level<br>3. Motherboard failure. |
| | The coin can not go inot increase the number of LCD screen | **Comparison of money Road:**<br>1. Please check whether the sampled coin in the money path matches the coin you are trying to put in.<br>2. can adjust the sensitivity of money, to relax.<br>3. Please check the connection of Money Road and motherboard, the power supply is correct for DC12V.<br>4. Money Road fault.<br>**Multi-currency money:**<br>1. Sampling memory problems, please follow the instructions attached to money Road reset.<br>2. Please check the connection between the money channel and the motherboard, and if the power supply is correct, supply 12VDC. |
| | Claws will not open when clamped back to the exit | The weak holding voltage is set too low. Please adjust the weak holding voltage depending on the size and weight of the item. |



| | | |
|---|---|---|
| Claw force | Clamps on the grip after boot | 1. The paw coil may have been short-circuited, please replace.<br>2. The motherboard is faulty. |
| | Will not clip | 1. Check the winding of the pawls for poor contact or loss.<br>2. Main board failure or power failure. |
| Crane | Can not be homing | 1. Turn off the power and turn it on again. If it still does not return to the home position, please check the front stop SW, then stop the SW, and the left stop SW is normal. The SW may be stuck. You can press and release it to hear the sound of "Tika". Check the connection is off.<br>2. Check if the middle connector of the overhead line is loosely connected.<br>3. motherboard is faulty. |
| | Joystick operation can not be forward or backward | 1. Rocker before and after the SW is faulty or the terminal is off.<br>2. Check the motherboard connection rocker socket is loose or not plugged in.<br>3. Crane stop before SW or stop SW after failure or stuck.<br>4. before and after the motor failure or line off, or gear can not mesh.<br>5. Check the line connecting the crane board is loose or not plugged in. |
| | Rocker operation cannot be left or right | 1. Left or right of the joystick, if the right SW is faulty or the wire ends fall off.<br>2. Check the motherboard connection rocker socket is loose or not plugged in.<br>3. Crane left stop SW is faulty or stuck.<br>4. The left and right motor malfunctions or the end of the wire is disengaged, or the gear cannot be engaged.<br>5. Check the line connecting the crane board is loose or not plugged in. |
| Under the hook | Press the hook after the claw will not hook, until the end of the game countdown automatically under the hook | 1. Check the hook button is normal.<br>2. Check if the wiring is loose or fall off. |
| | Under the hook button is normal, but can not be ticked | 1. Check if the upper and lower motor wire ends fall off.<br>2. Check if the upper and lower motors are faulty or the gear engagement is normal.<br>3. Check the winding is normal.<br>4. Whether the cable connecting the motherboard to the motherboard is loose or not plugged in. |
| | Press the hook when the paw does not go or next point that catch and return | 1. Check if the reel is caught.<br>2. Stop SW is easy to touch or malfunction. |

| | | |
|---|---|---|
| | Press the hook, the claws did not arrive at the accumulation of goods to catch the return line | 1. Check if the winding is too short.<br>2. Check if the reel is caught.<br>3. Is it easy to touch or malfunction when stopping the SW?<br>4. The adjustment of the length of the payout line is too short and may be adjusted properly. |
| Take things | After taking the goods back to the exit without claws | 1. Check before and after the stop SW or left stop SW is faulty or the terminal is off.<br>2. Check the connection of crane car line is loose or not plugged in. |
| | Paw does not rise after taking the goods, the crane is homing | 1. Check whether the stop of the SW has been activated by mistake.<br>2. Stop SW whether the fault or the terminal is off. |
| | After the paw does not rise, the crane does not move | 1. Check the upper and lower motor is faulty or fall off.<br>2. Stop SW whether the fault or the terminal is off.<br>The motherboard is faulty. |

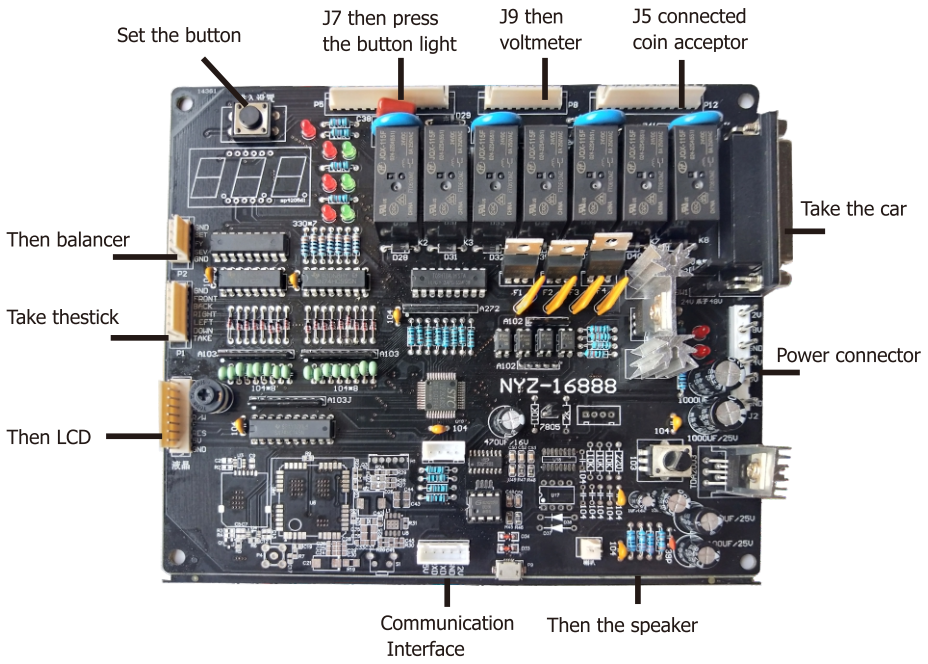
## Wiring instructions:

- Motherboard 1 socket location map



## Motherboard 1 wiring instructions

Motherboard 1 socket location map



## ● Motherboard 1 interface wiring diagram

**J5 wiring diagram**

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | Coin 1 |
| 5 | Coin 2 |
| 6 | |
| 7 | Out of the table |
| 8 | 12V |
| 9 | 12V |
| 10 | Into the table |
| 11 | 12V |
| 12 | Eye signal |

**Remote bar wiring diagram**

| | |
|---|---|
| 1 | GND |
| 2 | before |
| 3 | Rear |
| 4 | right |
| 5 | left |
| 6 | Under the hook |
| 7 | |

**Crane wiring diagram**

| | | | |
|---|---|---|---|
| 1 | Front and rear motor + | 14 | Front and rear motor - |
| 2 | Motor around + | 15 | Motor around - |
| 3 | Up and down the motor + | 16 | Up and down the motor - |
| 4 | Paw coil + | 17 | Paw coil - |
| 5 | After the stop SW | 18 | GND |
| 6 | Stop before the SW | 19 | GND |
| 7 | NC | 20 | GND |
| 8 | Left stop SW | 21 | GND |
| 9 | Stop SW | 22 | GND |
| 10 | Under the hook SW | 23 | GND |
| 11 | NC | 24 | GND |
| 12 | NC | 25 | NC |
| 13 | NC | 26 | NC |

**Balancer interface wiring diagram**

| | |
|---|---|
| 1 | GND |
| 2 | test |
| 3 | Balance the signal |
| 4 | |
| 5 | Coin 1 |

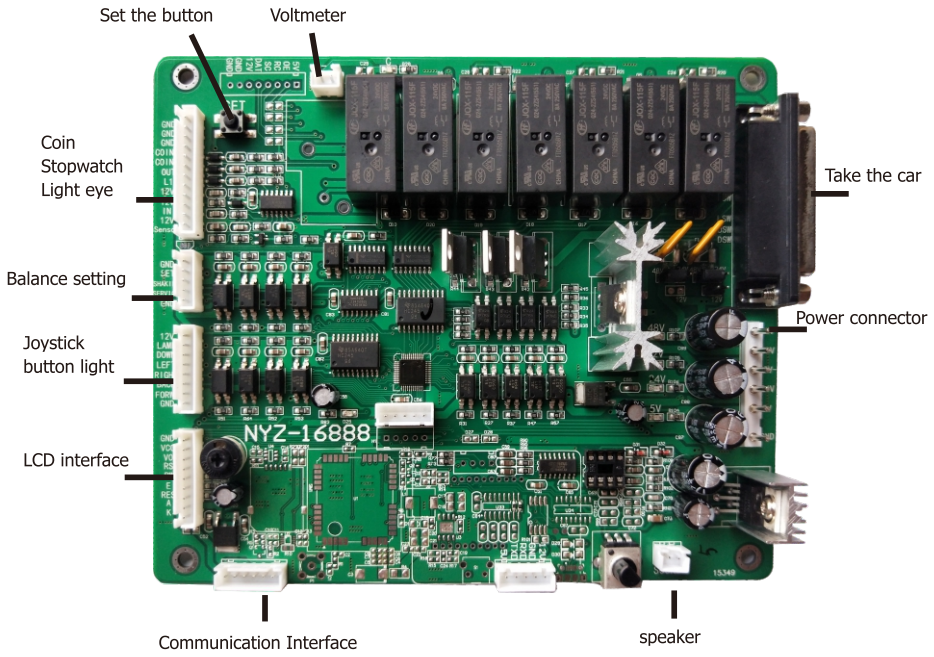
**Voltmeter wiring**

| | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | Voltmeter + |
| 9 | Transformer - |



# Main board 3 wiring instructions

## ● Location diagram of socket on motherboard 3



# Minstructions and precautions for setting the fixed point claw

**1. Fixed Point Mode:**
1.1 Fixed Mode ----- The Number Of Times The Game Has Reached The Fixed Point Probability The Game Switches To A Weak Grip Voltage Based On The Xy Position Set At The Fixed Point.
1.2 Random Mode ----- The Game Randomly Switches To A Weak Grip Voltage Based On The Xy Position Set At The Fixed Point Within The Set Number Of Fixed Point Probabilities.
1.3 Off ----- Do Not Use The Fixed Point Function. Default Is Off

**2. Fixed Point Probability:**
Sets The Probability Of Occurrence Of A Fixed Point Drop, And The Occurrence Time Is Related To The Fixed Point Mode.

**3. Left And Right Width Limit:**
This Parameter Is Used To Set The Maximum Left And Right Width Of The Crown Block, Which Must Be Set According To The Actual Width. The Size Of The Addition And Subtraction Data Can Be Switched Under The Rocker, And The Set Distance Can Be Automatically Tested Upward By The Rocker. If The Test Difference Is Significant, It Is Necessary To Adjust The Size Of The Width According To The Test Position And Retest.

**4. Left And Right Drop Point X:**
This Parameter Sets The Position Of The Left And Right Drop Points. The Size Of The Addition And Subtraction Data Can Be Switched Under The Rocker. The Rocker Will Automatically Test And Move Upward To The Set Right Drop Point, And The Rocker Will Add And Subtract Data Left And Right.

**5. Front And Rear Drop Points Y:** This Parameter Sets The Position Of The Front And Rear Drop Points. The Size Of The Addition And Subtraction Data Can Be Switched Under The Rocker. The Rocker Will Automatically Test And Move Upward To The Set Front And Rear Drop Points, And The Left And Right Rocker Will Add And Subtract Data.

**6. Jaw Swing Frequency:**
This Option Is Used To Detect The Speed Of The Swing Of The Rocker. The Smaller The Number Set, The Faster The Swing Will Be, And It Will Be Determined That The Swing Is In Progress.

**7. Claw Swing Times:**
Set The Number Of Times The Rocker Exceeds The Claw Swing Frequency To Trigger The Claw Swing Voltage

**8. Claw Swing Voltage:**
When The Player Shakes The Rocker More Than The Set Claw Swing Frequency And The Number Of Times The Rocker Swings Exceeds The Set Claw Swing Frequency, The Voltage Grabbed In This Game Is The Set Claw Swing Voltage, Which Should Be Set Lower. Try Not To Pick Up The Doll.

## Matters Needing Attention

1.The Position Of The Fixed Point Is Calculated Based On The Running Time Of The Crown Block Motor. Due To Physical Reasons, There Are Some Errors, And As The Number Of Rocker Swings Increases, The Error Will Increase. Therefore, The Number Of Rocker Swings Is Limited. When The Rocker Swings Back And Forth, Left And Right, Exceeding A Certain Amount Of Data, The Fixed Point Drop Will Be Canceled.

2. The Left, Right, And Front And Rear Drop Points Should Be Set Slightly Away From The Exit, As It Takes A Certain Amount Of Time To Release The Claw To Drop. In Addition, It Is Necessary To Set A Weak Grip Voltage Based On The Different Items Being Grasped, And Try Not To Use Items That Are Easy To Catch, Otherwise It Will Affect The Probability Of The Game And Lead To A False Winning.

3.After Adjusting The Front And Rear Left And Right Motor Speeds, The Left And Right Width Limits Must Be Reset, Including The Left And Right Drop Points X And Y.

4.After Setting The Relevant Parameters For Claw Throwing, You Can Quickly Shake The Rocker By Testing The Claw Throwing Parameters Set In The Claw Voltage Setting Menu In Item B. When The Machine Detects The Claw Throwing, The Screen Will Display The Number Of Claw Throwing Detected. The Parameters Can Be Adjusted Appropriately Based On This To Avoid Misjudgment As Much As Possible.



# Main board 7 wiring board wiring instructions

- Main board 7 wiring board socket location diagram

