

Ultra Amusements

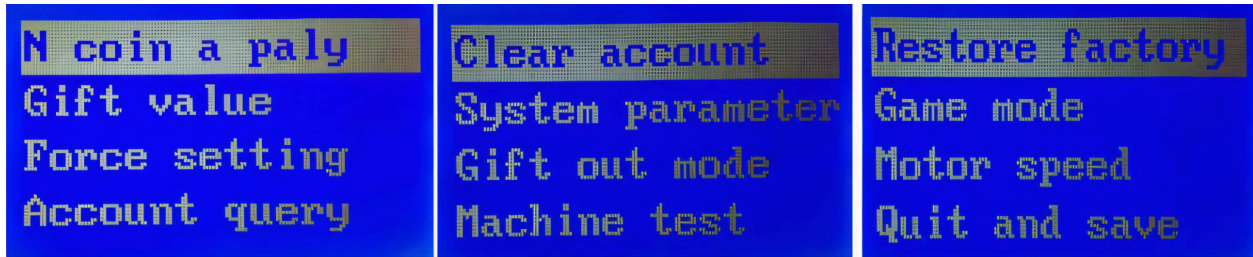
Claw Machine Settings

1. Welcome Screen



- The welcome screen is the main screen that is shown when the machine is on and ready to play.
- This machine is currently set to 1 coin per play as it shows “1CoinPlay” in the bottom right hand corner.

2. Settings Menu



- To enter the settings menu, locate the red button inside of the claw machine and hold it down for 5 seconds or until the settings menu appears on the screen as shown above.



- The red settings menu button can be found behind the coin acceptor on most models (see page 18).
- To navigate the settings menu, use the joystick to move around and adjust the settings and use the drop button to confirm your selected settings.

a. “N Coin a Play”

- “N” is a variable which stands for the “N”umber of coins required for each play.
- Most users will set their machines to accept quarters and charge \$1.00 per play, so if $N = 4$ then 4 coins (in this case quarters) will equal one play.
- To set the machine to \$0.50 per play you would make $N = 2$ and so on.
- For users who want to accept tokens where 1 token = 1 play the settings should be $N = 1$.
- Note that this setting is separate from the price setting on the dollar bill acceptor and the credit card reader.
- By default, our machines come set up for quarters so at a setting of $N = 4$ there will be no additional setup needed for the bill acceptor or credit card reader.

b. Gift Value

- “Gift Value” measures how often a “gift” or prize is given out.
- The most common setting is 8 but this will vary based on your preference and the value of the prizes that are available in the machine.
- A setting of 8 means that the machine will use it’s strongest grip strength for 1 in 8 plays.
- In the section c. below, you will be able to adjust all of the strength settings to determine what the strongest grip strength will be.
- Depending upon your adjustments you can make it more or less difficult to win during the other plays when the strongest claw strength is not used.

c. Force Setting

```
Strongforce15.0V
Weak force10.0V
Strong time 10
Weak time 2
Third claw13.6V
Strong2Weak Top
Auto Adjust Claw
Test effort
WinningClaw46.0V
Exit
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- The force settings control the strength of the claw during play.
- The force of the claw is measured in Volts as the closure of the claw is controlled by an electromagnet.
- The voltage can range from 0V to 48V. The higher the voltage the stronger the claw will hold onto the prize once it has closed around it.
- Each play is divided into 3 sections:
 - 1. “Strongforce” is the strength of the claw when it first grabs the prize.
 - 2. “Weak force” is the strength of the claw as it raises up and reaches the top.

- 3. “Third Claw” is the strength of the claw after it reaches the top and has began heading back to its home position.
- Pressing the drop button while selecting any of the strength settings will close the claw with the corresponding strength so that you can test whether a given prize would be held or dropped at each strength level.
- “Strong time” controls how long the claw stays at the “Strongforce” level for.
- Similarly “Weak time” controls how long the claw stays at the “Weak Force” level for.
- The “Third Claw” level will automatically begin at the end of the “Weak time”.
- “Strong2Weak” controls when the claw transitions from the “Strongforce” to the “Weak Force”. This setting is normally left at “Top” to occur right when the claw is finished going up. Alternatively, it can be set to transition based on time.
- “Winningcla” is the strongest strength level, this is normally set at 46V-48V. This strength will be held

through the entire play, overriding the previous 3 strength levels based on your “Gift Value” settings in section b. above. For example, at a Gift Value of 8, one in eight plays would use this strength level instead of the other 3 strength levels.

d. Account query

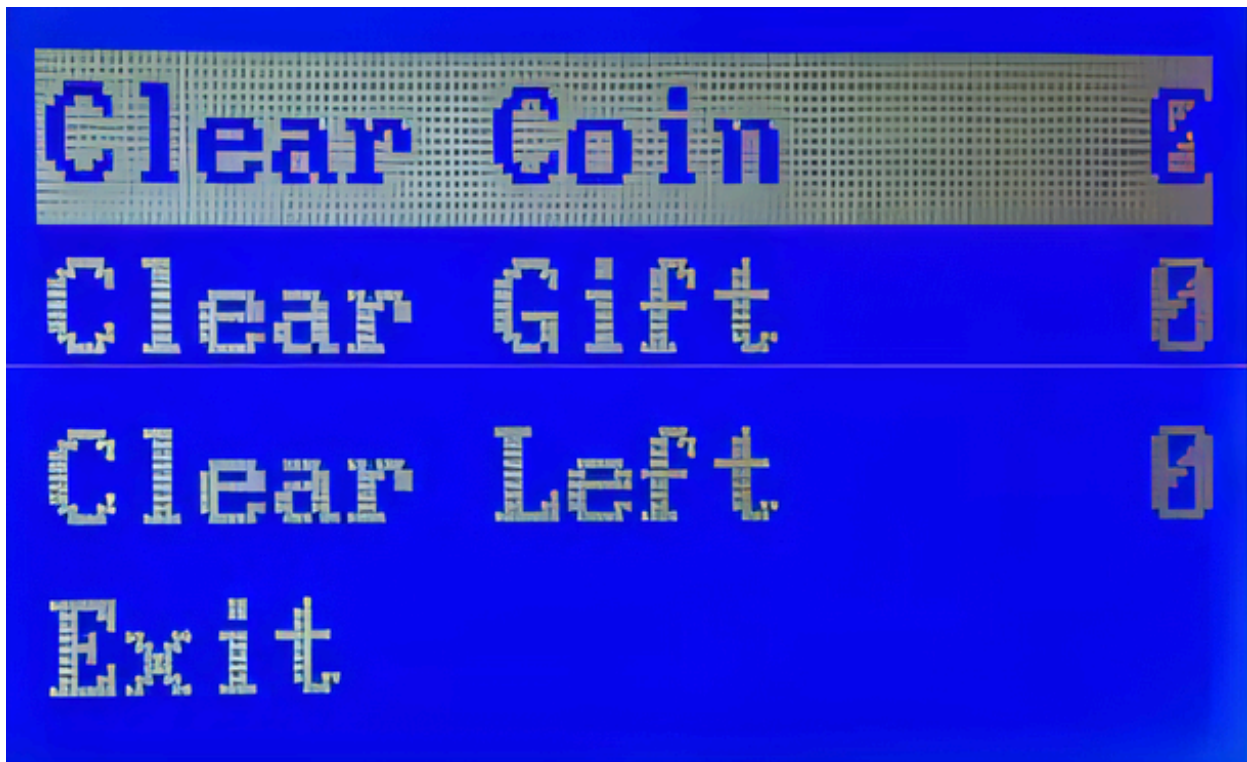
- The “Account query” section keeps track of how many coins (or coin equivalents) the machine has taken in as well as how many prizes have been won.
- Please note that the totals in these sections will likely not show zero when you receive your brand new machines as we do thoroughly test the machines before shipment.
- Also note that the prize sensor works by shooting a laser through the prize area to see if anything crosses its path. For this reason the prize sensor may falsely detect prize wins if your hand crosses its path or a prize is accidentally dropped into the prize chute while refilling the machine.

Total Coin	4
Total Gift	0
Cur Coin	0
Cur Gift	0

- “Total Coin” is the total number of coins (or coin equivalents) that have been accepted by the machine during its lifetime. For example, if the machine accepts quarters then each \$1 bill would count as 4 coins in this section.
- “Total Gift” is the total number of prizes that the machine has given out during its lifetime.
- “Cur Coin” is the total number of coins (or coin equivalents) that have been accepted by the machine since the counter was last reset.
- “Cur Gift” is the total number of prizes that have been won since the counter was last reset.

- See section e. below to learn how to reset the “Cur Coin” and “Cur Gift” counters.

e. “Clear Account”



- When pressing the drop button with “Clear Coin” selected it will reset the “Cur Coin” value from section d. above.

- When pressing the drop button with “Clear Gift” selected it will reset the “Cur Gift” value from section d. above.

f. System Parameter

Game time	28	Air fetch	Y	Language	English
Gate out	D	CustomerCode	00	Network type	LYY
Shake clear	Y	Clawdowntime	40	Series Coin	00
Memory coin	N	Sell time	27	Auto start	Y
MusicSelection	07	Ex_parameter	0		
BG music	03	Reserve1:	0		
Ex_parameter	0	Reserve2:	0		
Ex_parameter	0	Exit			

- “Game time” is the amount of time (in seconds) that the player has each game before the claw automatically drops.
- “Air fetch” controls whether or not the player is allowed to double click the drop button to close the claw in midair before it reaches the bottom. This is normally left on “N” as more customers use this feature by accident than on purpose.

- “Clawdowntime” controls how far the claw will descend before it closes. This setting is useful if the prizes in the machine are elevated on a riser. On most models this setting will be 70 by default.
- “Auto Start” controls whether the game will begin automatically (Y) or only once the player makes the first move of the joystick (N).
- “MusicSelection” selects the main music for the machine. The songs are numbered so you will have to experiment to select whichever song you prefer.
- “BG music” selects the background music for the machine. The songs are numbered so you will have to experiment to select whichever song you prefer.

g. Gift out mode

- “GiftOutMode” determines how your setting from section b. is applied. The options are “Rand”, “Fixed”, and “Sell”.
- “Rand” means that the setting will be applied randomly. If the “Gift Value” in section b. is set to 8 then random would mean that each play has an equal

1 in 8 chance of using the “Win Claw” strength from section c. This is applied as each play having an equal 12.5% chance.

- “Fixed” means that the setting will be applied in the same order every time. If the “Gift Value” in section b. is set to 8 then fixed would mean that the first 7 plays will all follow the 3 strength setting from section c. (Strong, Weak, and Third). The 8th play would always be the one that uses the “Win Claw” strength from section c.
- “Sell” is a “Play-Till-You-Win Mode”. This means that regardless of your settings in section c. the player will continue to get free plays until a prize has been won. It is recommended to set the “Gift Value” in section b. to 1 when using Sell mode.
- “Sensor Setup” determines whether the prize sensor will be used (Y for Yes or N for No). This must be set to Y to use “Sell” mode. Some operators disable the prize sensor if they already have another method of counting prizes won as it eliminates a possible point of failure.
- “Must Out” determines whether the “Win Claw” strength from section c. should persist in the event of

a loss or reset after a loss (Y for persist or N for reset). For example, if the “Gift Value” in section b. is set to 8 and “GiftOutMode” is set to fixed then on play 8/8 the “Win Claw” strength will be used. If there is no prize won on play 8/8 and “Must Out” is set to Y then play 8/8 will be repeated until a prize is won before returning to play 1/8. If “Must Out” is set to N then even if no prize is won on play 8/8 the next play will be play 1/8 and not use the “Win Claw” strength.

h. Machine Test

- This section is used to diagnose any issues that you may have with your machine. Each individual component of the claw and control mechanisms can be tested here so that you can easily narrow down and diagnose any issue.
- “Rocker Test” is for testing the joystick and drop button. As the joystick is moved in each direction you should see the corresponding 0 turn into a 1 to acknowledge that each directional sensor is working properly.

- “Limit switch test” will determine whether each of the limit switches in the machine is registering correctly. As you press down on the metal tab of each limit switch you should see the corresponding 0 turn into a 1 on the screen to acknowledge that each limit switch is working properly.
- Limit switches are responsible for sensing the boundaries of the claw’s track. They are located on the edges of the claw gantry and tell the claw when to stop moving in a certain direction as to not run into the wall.
- The switches should show 0 when not pressed. If a limit switch in use shows 1 when not pressed against a boundary of the machine then it is likely that the switch has gotten stuck. Above you will see a picture of a limit switch.



- “Motor F&B&L&R” will test the motors on the gantry (Forward, Backward, Left, Right). These can be tested using the joystick. This test is useful when the claw is not moving in one or more directions to see whether it is a motor issue or not.
- “Motor U&D test” will test the motor that raises and lowers the claw. This test is useful to see whether the claw is unable to raise or lower either due to a motor issue or the rope being tangled. If the claw is able to raise and lower correctly in this mode then any issue with the claw not going up or down is likely due to either the limit switches behind the metal plate covering the claw string or the settings themselves.
- “Claw test” will test to see whether the claw is able to open and close. If the claw is able to close here but unable to close during gameplay then the issue is most likely settings based.

i. Restore Factory

- Performing a factory reset will erase all of your settings. The factory reset will not reset “Total Coin” or “Total Gift” from section d. The machine language will

also be reset. This video will explain how to change the language:

<https://www.youtube.com/shorts/Gsz2rHfX7Tc>

j. Game Mode

- “Normalmode” is for commercial use. The machine will charge money or tokens for plays based on your settings.
- “Free mode” is for home use. The machine will not require any credits to play.
- In “Auto test mode” the machine will play by itself. This is used for stress testing machines to ensure that everything is in working order before they leave the factory. It can also be used to simulate the atmosphere of a busy arcade.

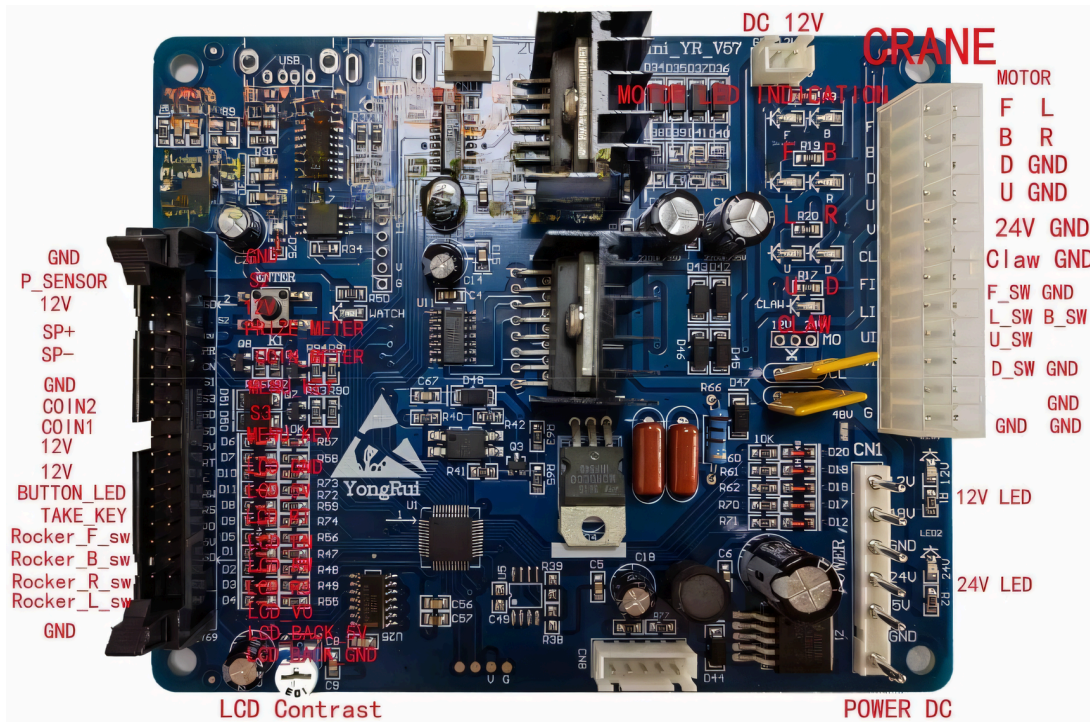
k. Motor Speed

- The motor speed controls how quickly the claw moves around forward, backward, left, and right.

l. Quit & Save

- Any changes that you have made to the settings will not be applied until you press quit and save. Exiting out of the settings menu by turning the machine off and back on will not apply any of the settings.
- Note that when changing the settings via physical switches on individual components ie. the coin mechanism or the bill acceptor a power cycle may be required to apply the changes.
- Whenever any issue arises without a known cause, the first step taken should be to turn the machine off, wait 5 seconds, and then turn the machine back on to see if the issue persists before making any changes.

Motherboard Schematic



Settings Menu Button

