

Table-Tennis-Tables.co.uk
TABLE TENNIS ROBOT
INSTRUCTION MANUAL

PP100

Double head multifunctional table tennis robot



Please read this manual before operation

Trouble shooting

| Failure | Cause | Solution |
|---|---|---|
| Machine doesn't work | <ul style="list-style-type: none"> The selected number of balls has run out and robot is in <input type="checkbox"/>standby<input type="checkbox"/> mode The plug and socket are not properly connected The key on the control box is not pressed The control box doesn't work due to strong shaking Self-protecting timeout function has been turned on | <ul style="list-style-type: none"> Press the <input type="checkbox"/>start<input type="checkbox"/> key Check the electric socket Press the switch until the number displays Replace the control box Press <input type="checkbox"/>start<input type="checkbox"/> button |
| Machine works, but does not release the balls | <ul style="list-style-type: none"> The poke bar in ball container is loose The ball duct is jammed by foreign objects There are not enough balls in the container | <ul style="list-style-type: none"> Fasten the poke bar Clear away the foreign objects (see pg ??) The amount should be 50-100 balls |
| Speed and frequency cannot be adjusted | <ul style="list-style-type: none"> The parts in the control box temporarily fail to work The cable connecting to the motor is loose The pressing key on the control box does not work properly | <ul style="list-style-type: none"> Start up again after shut-off for 5 seconds Connect it using the original method Replace the thin-film switch on the surface of control box |
| Landing spot is unstable | <ul style="list-style-type: none"> There would be dirt and wear on the top-wheel and bottom-wheel after a long time in operation | <ul style="list-style-type: none"> Clean or replace the friction wheel |
| Ball counter does not function properly | <ul style="list-style-type: none"> There are some broken or unsuitable balls inside the robot The robot just started and the balls are still feeding | <ul style="list-style-type: none"> Take out the broken balls and use standard ones Wait a couple of seconds |

Safety issues and regulations

1. Please read the instruction manual carefully before using the robot, and follow the instructions to operate the robot.
2. Instructive advice should be given when machine is used by children.
3. Avoid using outdoors in windy or rainy conditions.
4. Be careful when connecting and disconnecting the ball collecting net.
5. When the robot is operating, please do not open the movable door, and don't touch the shooting head or poke bar.
6. When the robot is operating, please keep away from the shooting head to avoid harm.
7. When the robot is operating, if you observe something abnormal, such as smoke coming from the machine, please stop the robot and unplug it immediately. Repair or service must be performed by a qualified repair person.
8. Some parts of the robot will heat up during the operation. Please pay attention to avoid burning yourself.
9. Please turn off and unplug the robot after use.
10. If you are not the maintainer authorised by our company, please do not remove the cover of the ball pipeline, otherwise you may get a shock if you touch it.

The company has the right to amend the description of products in this manual without any notice in advance. If the pictures and technical parameters in this manual are different from the actual products, everything should be subject to the actual product. Our company will not take any legal liability for those problems that may be caused from data error.

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INTRODUCTION TO FUNCTIONS OF THE ROBOT

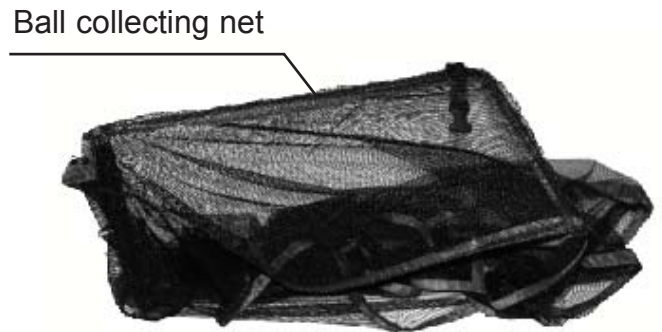
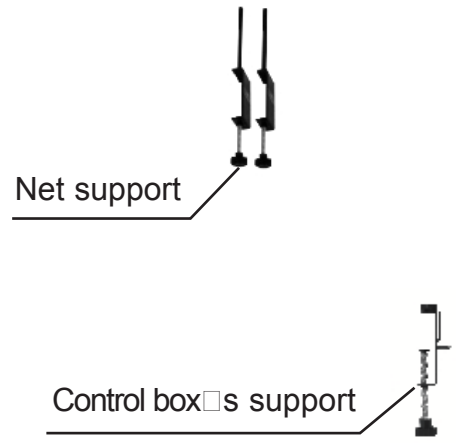
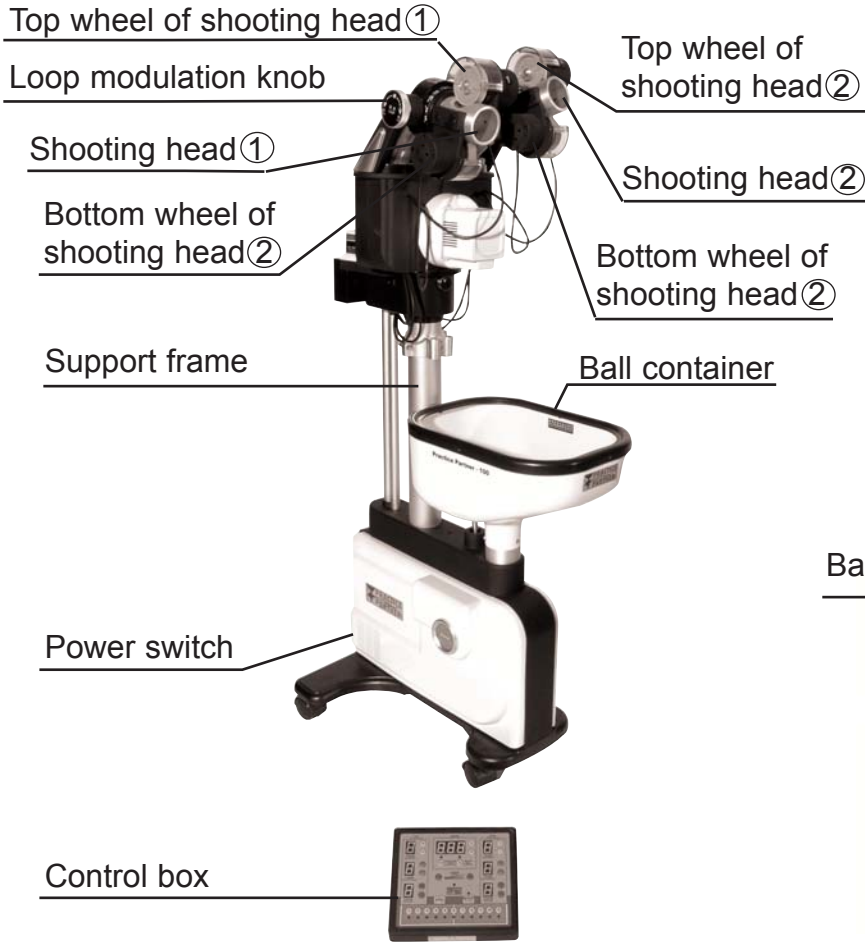
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CAUTIONS AND MAINTENANCE

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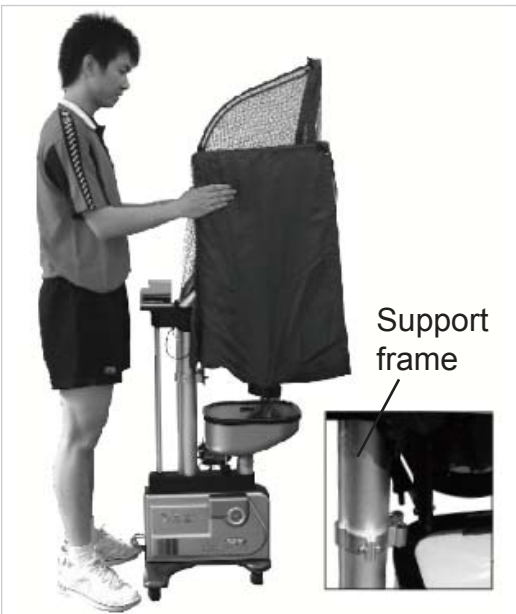
Robot components and ball collecting net



How to assemble the ball collecting net



1. First, open the lock buckles of the ball collecting net.



2. Partially unfold the ball collecting net and place the square opening over the robot head. Insert the pin from the ball collecting net into the support frame of the robot.



3. Spread out the ball collecting net with both sides.

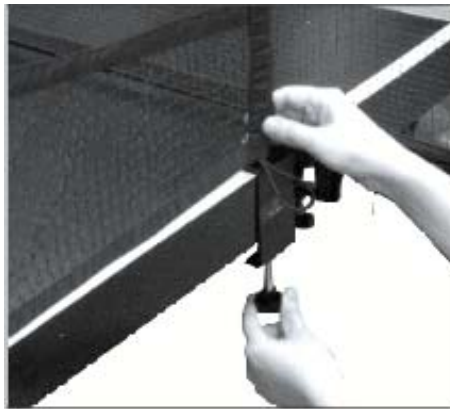


4. Put the table tennis robot close to the edge of the table. Open the wheel lock when moving the robot.

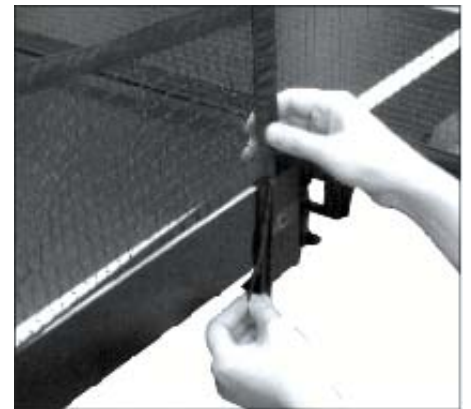
How to position the table tennis robot



5. Put both end sleeves of the ball collecting net on the net supports.



6. Clamp the net support onto both sides of the table (close to the net).



7. Pull the rubber band over the bottom of net support.



8. After training, fold back the ball collecting net in a reverse order to the original process, lock the buckles, and store it in a suitable place.



A picture of a fully installed robot.

What power supply to use

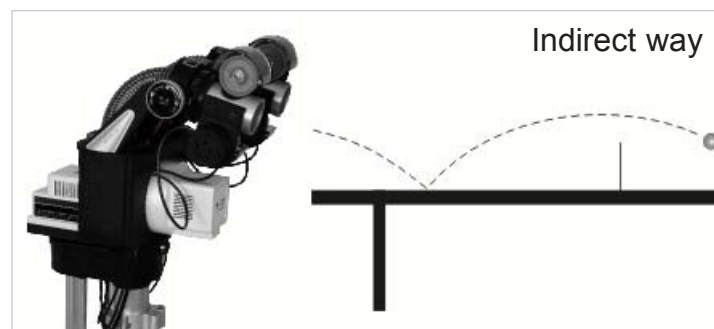
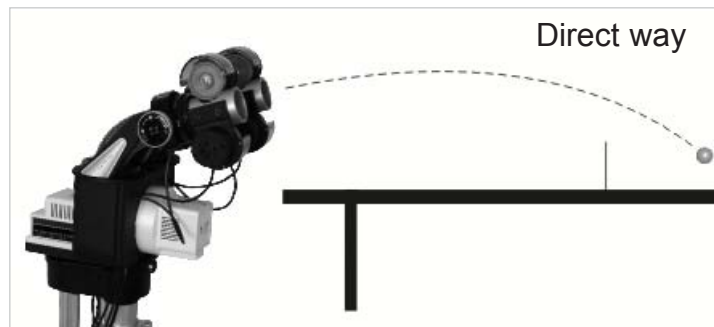
The information for the proper power source for the robot is marked on the side of the machine body. The connection between plug and socket should be perfect. The plug should be removed from the socket after use.



The power switch is located at the back side of the machine body. Turn the switch on before using the robot and turn the switch off after use.

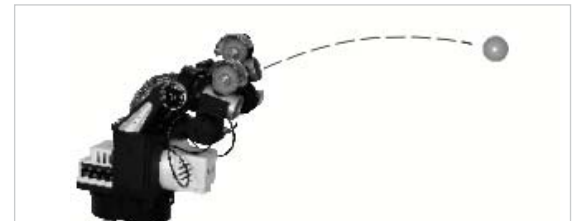
Ways to serve the ball

The balls can be served either directly or indirectly (suitable for shooting head ① and ②). The speed and rotation of the former will be stronger than those of the latter. They may be adjusted with the loop adjustment knob. (Please refer to page ?? □Loop modulation□).



Single head serve

To use the single head serve, set the ball counter of one shooting head to be infinite. (□-□ indicates infinite amount). You can also adjust the speed, frequency, spin, landing spot and total number of balls at this point.



Double head serve

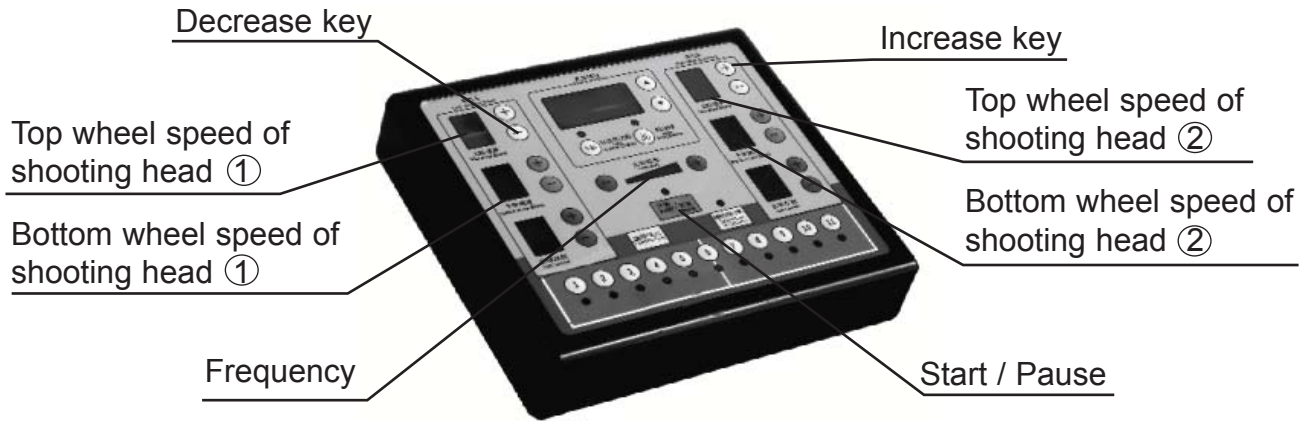
Shooting head ① and ② takes turn to serve (In general the shooting head ① begins to serve the first ball when the robot starts; however, broken balls may affect the order of serve). You can adjust their spin, speed, landing spot and number of balls to form different serving sequences. For example, set the shooting head ① to top spin, adjust the speed to □7□ stage, input 3 balls in the first ball counter, and press #2 position three times. Then set the shooting head ② to under spin, adjust the speed to □5□ stage, input 1 ball in the second ball counter, press #10 position once. Press □Sat□ key, now the shooting head ① serves 3 top spin balls at the #2 position, then shooting head ② serves 1 under spin ball at the #10 position. If the number of balls from shooting head ① and ② are different from the times that have been pressed on position #1-#11, the shooting head ① and ② will take turns to serve each position. There are different kinds of balls produced depending on different number of balls. (Please refer to the different adjustment in this manual).



Speed modulation

Ball speed can be adjusted in Working or Stand by mode. The stage-level light on the control box will flash when the power is on.

If the stage doesn't need to be changed, press the start key directly to play. Otherwise, adjust the stage level by pressing the Increase or Decrease key. There are a total of 10 stages from the lowest to highest level. The top wheel and bottom wheel can work at the same time or work independently. The higher the stage being selected, the faster the ball speed will become. Basically the speed of the ball is proportional to the strength of the spin. If the stages of the two wheels are close enough, the ball would barely be spinning. The control box also has a memory function that memorises the current setting, making it capable to play with the same setting as the next time you start.)



Frequency modulation

With the same modulation method as the speed, the frequency can also be adjusted by pressing the Increase or Decrease key with a total of 10 levels. The lowest stage of frequency is about 25 balls per minute and the highest stage is about 85 balls per minute.

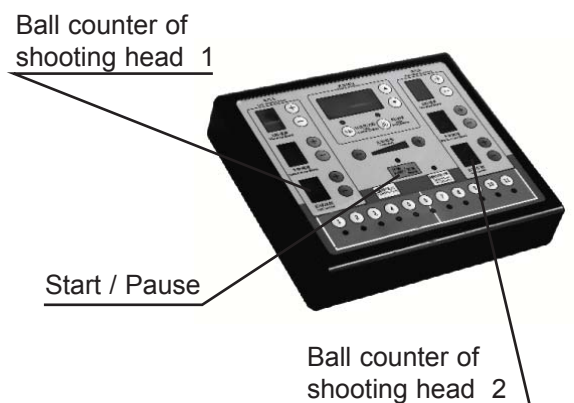
How to select spin

The spin from shooting head ① or ② is selected by adjusting the speed of the top-wheel and bottom-wheel and by rotating the motor head of the robot. Each of them can perform 9 different spins: top spin, under spin, no spin (produced by varying the speed of top and bottom wheel), left side spin, right side spin, left side top spin, left side under spin, right side top spin and right side under spin. When selecting the spin from one shooting head, please rotate the other to a particular position that does not affect the movement from the first. The two shooting heads can not be set to side spin at the same time.



Selecting number of balls

This selection is for setting the number of balls from the individual shooting head ① or ②. Shooting head ① and ② have the same method of adjustment. In standby mode, press + and - to input the number 1-9 or infinite (- indicates infinite) in the ball counter. When one shooting head has been set to be infinite amount, the other will not shoot any balls out. To set the number of balls for the second shooting head, pause the robot, then adjust the number from - to 1-9 in the ball counter of the first shooting head. In general the shooting head ① begins to serve the first ball when the robot starts; however, there are some exceptions. For example, broken balls may affect the order of serve. (The first few balls may be affected and cause inaccurate at this point).



Selecting total number of balls

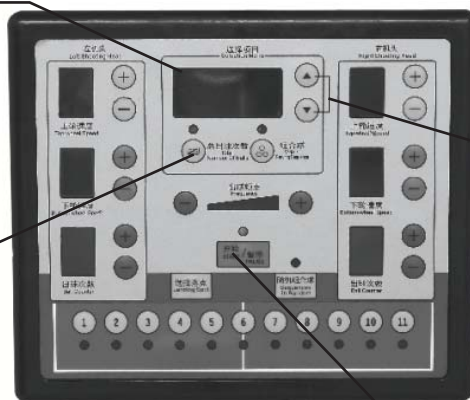
In standby mode, press the ball counter key, then change the number by pressing up or down arrow key. The range of frequency is 1 - 999. Hold the key for fast forward adjustment. Once the robot has started, the number begins counting down. When the number reaches 0, the robot stops and goes back into standby mode.

To set the infinite amount (unlimited), press Total number of balls until the indicator light is off.

Digital display

Total number of balls

Adjustment key



Start / Pause

Selecting the landing spot

The landing spot can be selected in standby mode. The robot can perform many different kinds of serve style, such as fixed course, alternative course in left/right direction, random course and long or short ball sequence and so on. There are 11 digit keys located at the bottom portion of control box. Those keys indicate the 11 positions of the table. The blue area indicates the whole table area from the player side. To select the landing spot, first of all press the Landing spot key, all indicator lights of 1-11 position are turned off at this point. Now you can press either one of the spots, the light of that corresponding spot will be turned on. Press the short ball key to make the ball shorter. Otherwise, the default serve will be long. Press the Start key to start the robot after finishing the selection. For example, to select a fixed course with the landing spot at the #9 position, you only need to press the 9 key then start the robot. To select an alternative course that serves at the #11 position with three long balls and at the #1 position with two short balls, you can follow the above procedures, press the digit 11 key three times, then press the digit 1 key once, followed by the short ball key, repeat this move once more (press the 1 key, followed by the short ball key).

Press Start after finishing this selection. The number of balls that land on the same spot depends on how many times you press the same position key. You can create as many different serve sequences as you wish. The control box has a memory function that saves the current setting, which you can use for next time.

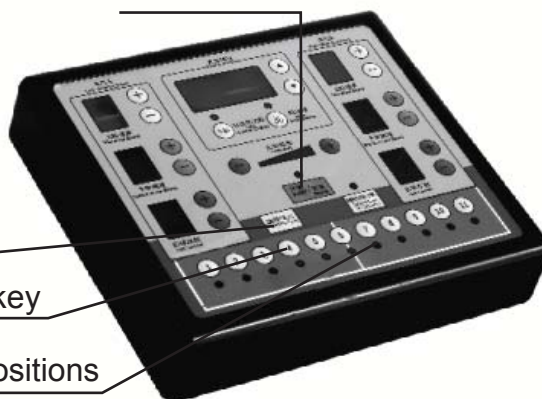
(The #1-#11 landing spot from the control box is referring to the actual landing spot of the double head serve as a benchmark). When using the single head serve, the original #1-#11 landing sport may be a little different, as well as the selecting range. For example, when shooting head 1 serves please select a landing spot in the range of #2-#11. When shooting head 2 serves please select a landing spot in the range of #1-#10).

Start / Pause

Landing spot selection key

1 - 11 position selection key

Indicator light of 1 - 11 positions

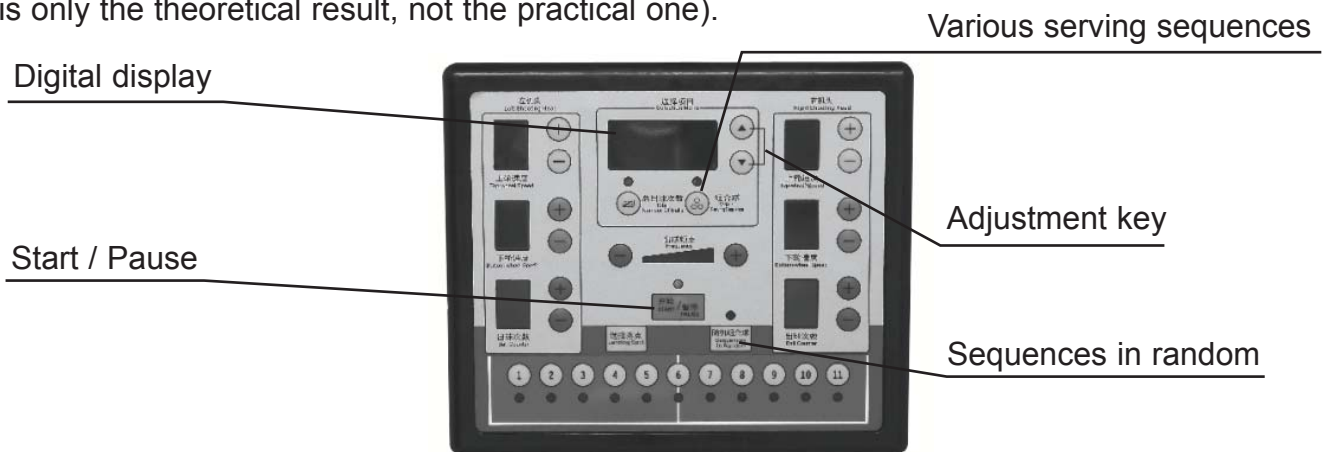


Selecting different serve sequences

In **standby** mode, press the **Various serving sequences** key. This light will be turned on. Press the up and down arrow to choose from one of 30 sets of serve sequences. Press **Start** key and it will begin to serve automatically according to the selected sequence. In this mode, **Landing spot** key, **Total number of balls** key and **Sequences in random** key are locked temporarily. You can press **Pause** and press the **Various serving sequences** again to unlock this mode (you can also press either **Sequences in random** or **Landing spot** to cancel the **Various serving sequences** mode after pausing the robot. These three functions can use this method to cancel each other out).

Selecting sequences in random

In **standby** mode, press **Sequences in random**. This light will be turned on. Now the robot will randomly select one sequence from 30 sets of serve sequences and then rearrange the serving order to form a new sequence. Theoretically this may produce more than 60,000 different kinds of serve sequence. (This is only the theoretical result, not the practical one).



Loop modulation

When modulating the loop of the serve, loosen the loop lock knob with your left hand, while adjusting the loop modulation wheel with your right hand. When achieving your desired loop, lock the knob (high curve makes the landing spot longer, low curve makes the landing spot shorter).



Capacity of the ball container

The ball container may contain 100 balls in 40mm size. The level of the balls in the ball container should not be higher than the label (yellow line) positioned inside. Any items other than table tennis balls should not be put into ball container. Otherwise its parts may be damaged, affecting normal operation of the robot.

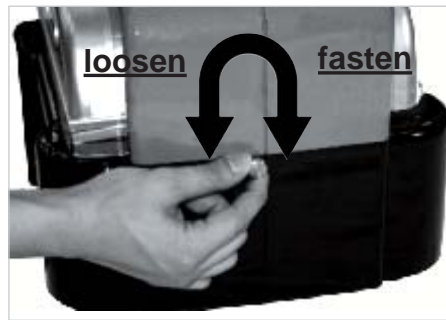


How to maintain the table tennis robot

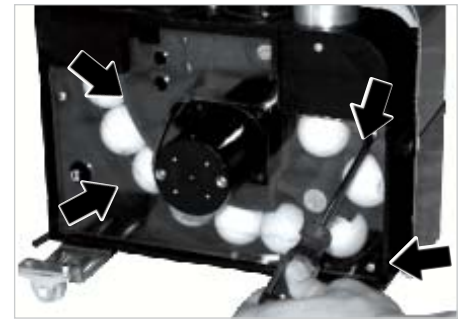
Electric component: The electric component in this product consists mainly of the base machine's circuit boards and the control box, which is the command centre of the robot. Therefore, any jolts or shakes should be avoided. The control box must be inserted into the support at the side of the table to avoid dropping and breaking. Never allow any liquid on to its surface, in order to prevent electrical leakage and/or damage to its electronic units.

Mechanical component: The mechanical component in the table tennis robot is concentrated mainly on the mechanisms for ball service and delivery. Special attention should be paid so that any foreign objects are not put into the ball container, except for the balls.

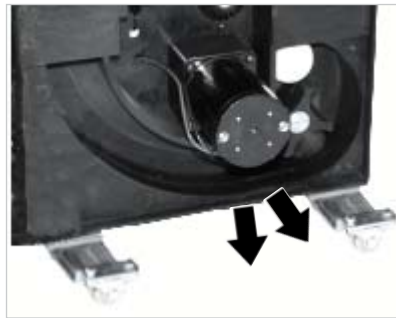
Otherwise, they would block the delivery wheel in the robot and would result in no ball delivery and may even damage the robot. There is a view window fixed at the underside of the moveable door. You can turn off the power, open the moveable door, remove the transparent guard plate, and take out any foreign objects if such things have entered, thus returning the robot to its normal operation. When the poke bar inside the ball container has been in use for a long time, it should be checked for loose screws and/or cracks, so as to prevent any trouble which would lead to poor delivery of the balls.



Loosen screws at the robots base



Loosen four screws



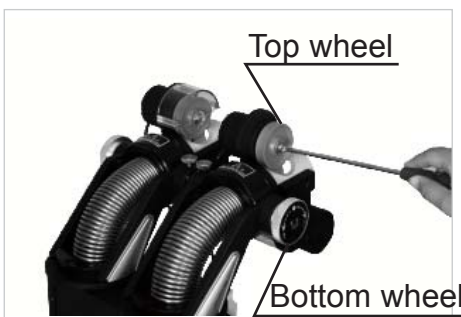
Take out the misplaced items



Poking bar



Under normal conditions, the top and bottom wheel (friction wheel) can work for 5000 hours. However, the friction wheels should be replaced after a long time in use. To replace the wheels, remove cover 1, remove the cover of the ball separating wheel, loosen the protective cover and take out the screw at the friction wheel with a screwdriver (tighten it clockwise and loosen it counter-clockwise.)



The table tennis robot should be kept clean. There would be some dirt on the surface of top and bottom wheel (friction wheel). But such dirt can be wiped off with a wet cloth, so as to ensure a quality shoot of the ball. Suitable strength should be used when turning the regulation knobs at the other places during an operation. Never force it violently, so as to prevent damage to the internal parts. During an operation and/or transportation, protect the table tennis robot against any strong impact or shakes. Unplug and cut off the power supply when you have finished your exercise.

