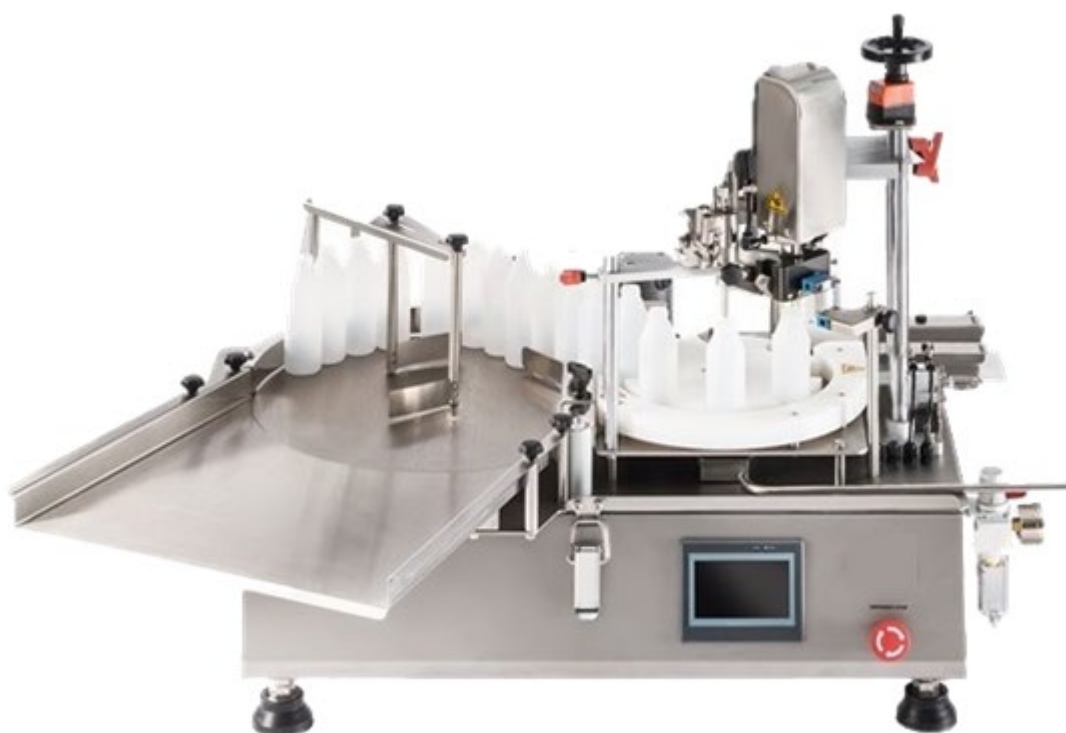


USER MANUAL

Tabletop Star-wheel Capping Machine



the image is only a reference

FT-1000+FC-1055+LR-1000(coder)

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1 SAFETY INSTRUCTION

This manual is designed for operators who are not acquainted with the machine, so please follow the instructions to operate and adjust the machine step by step. If you cannot thoroughly understand some of the instructions, please ask experienced technicians for help or contact us. Thank you!

Note: Please read this user manual in detail before taking any action to operate the machine!



- This machine is driven by 110 or 220 VAC. The voltage should fit for the power standard of the machine and should always stay within the security limit.



- Only engineering technicians are allowed to make adjustment of the machine, but any adjustment is forbidden while the machine is running. Failure to follow this warning may expose the operator to danger.



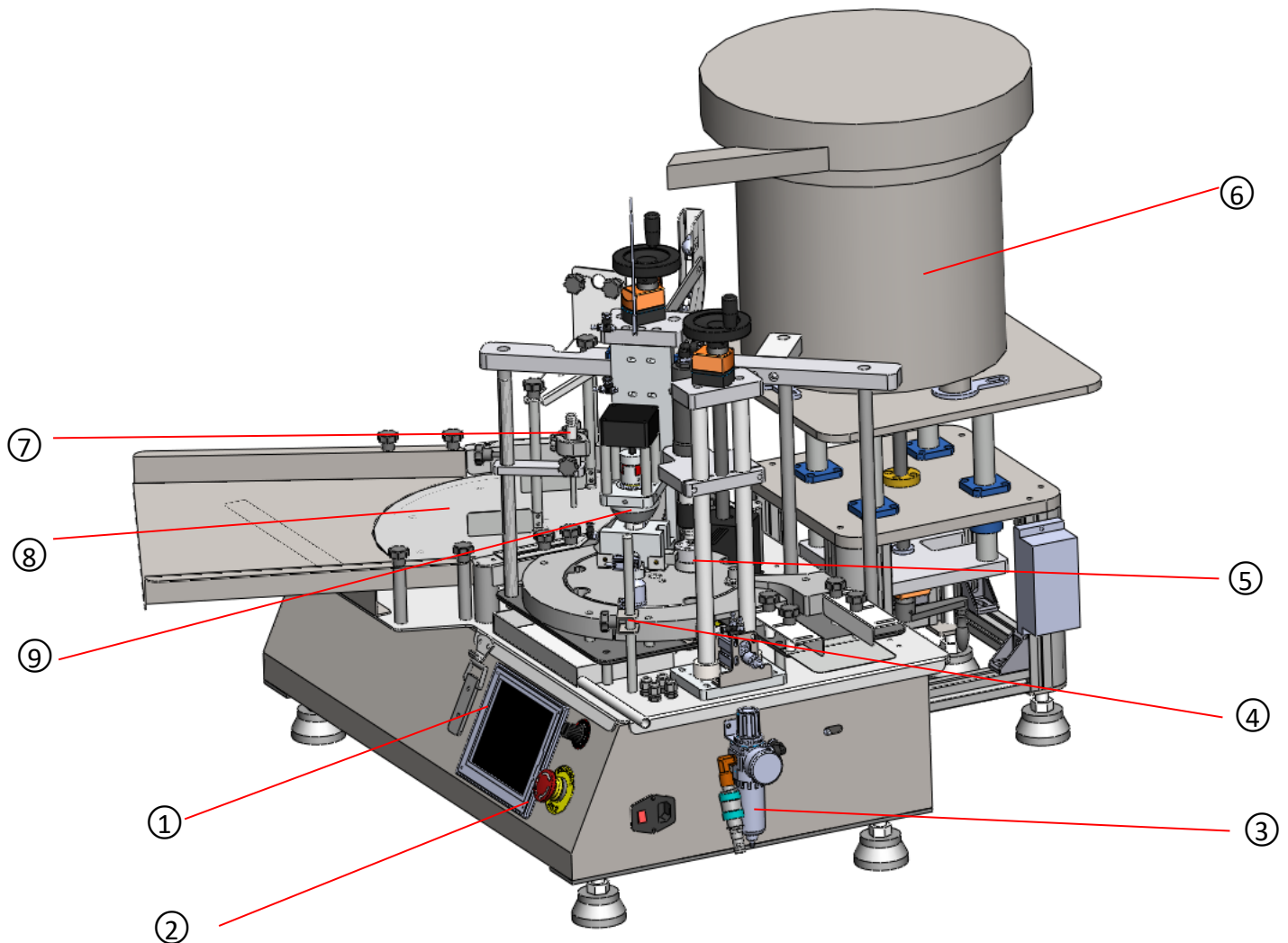
- Do not place the machine near high temperature or inflammables. The places where are not stable or where the machine will be crashed easily are also not suitable to place the machine.
- To prevent from getting electric shocks, the machine cannot be placed in a humid environment.
- Do not attempt to remove/replace parts or to use the machine for any other purpose other than what is recommended by NEOSTARPACK.
- Do not randomly apply lubricants to any part of the machine.

Notice of Equipment Improvements & Document Revisions

Neostarpack Co., Ltd. continually devotes to developing and researching for new items and reserves the right to change or terminate the production specifications and features which are presented in this manual without notice and without taking any responsibilities. Neostarpack has also strived to provide all the needed information in this guide, but if there is any error, Neostarpack reserves the right to correct for the next revisions.

2 PRODUCT DESCRIPTION

2.1 COMPONENTS



① HMI

② Emergency Stop Button

③ Regulator

④ Cap Sensor

⑤ Capping Head

⑥ Vibration Bowl

⑦ Filling Nozzle Bracket

⑧ Turntable

⑨ Cap Placer

2.2 ATTACHED PARTS



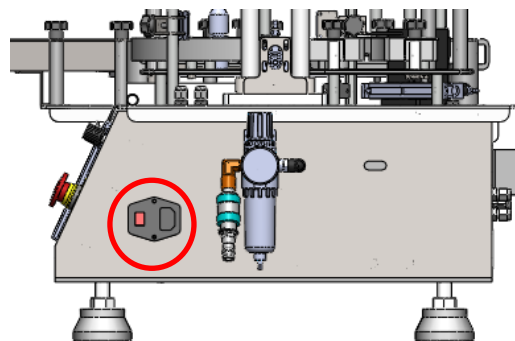
Item	Part
1	Bottle Placing Tray
2	Power Cable
3	Foot Pedal
4	Speed Controller
5	Air Hose
6	Hand Lever
7	Star Knob
8	Relay

3 ADJUSTMENT



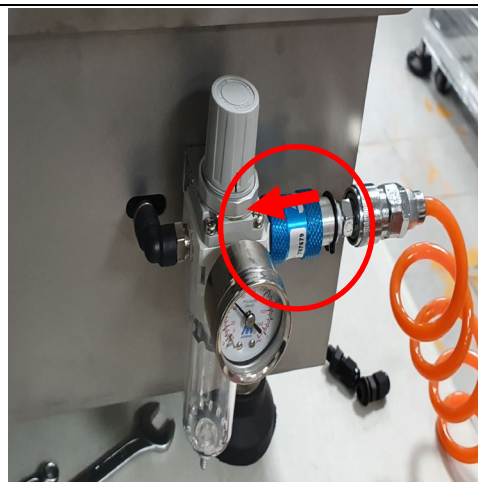
3.1 CAPPER-AIR AND POWER

3.1.1 Please connect the power cable first.



3.1.2

1. Connect the air input and check the switch is on
2. Adjust the air pressure to 3-4kg.



1. Ensure the air hose is connected.
2. Check the speed knob is not closed.



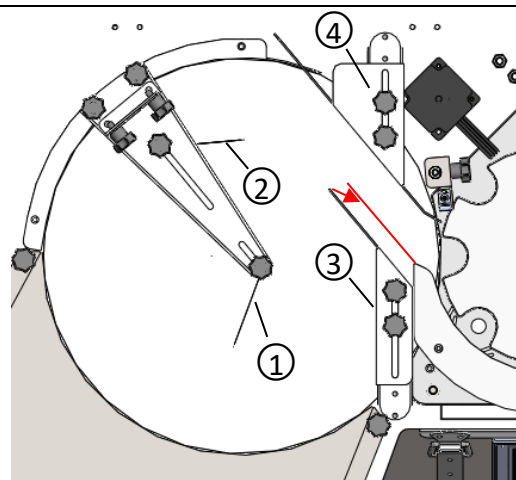
3.2 CAPPER-GUIDE RAIL ADJUSTMENT

Step1 Adjust the direction of the plate ① as it shows in the picture.

Step2 Adjust the plate ③ until it attaches the edge of star wheel ⑥.

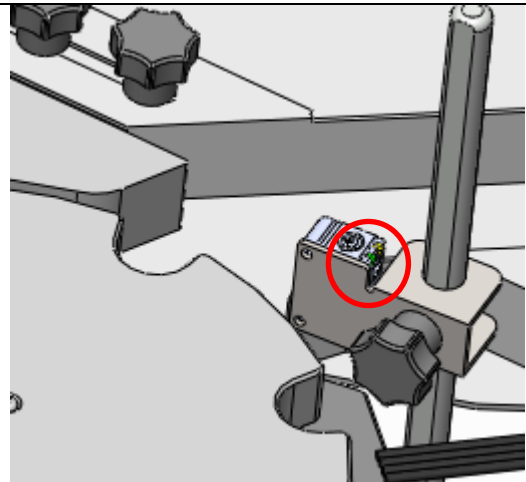
Step3 Adjust the plate ② to match the direction of the curve ⑤, and make sure bottles can be fed in channel smoothly.

Step4 Adjust the plate ④ that the channel size is the same as the diameter of bottles.

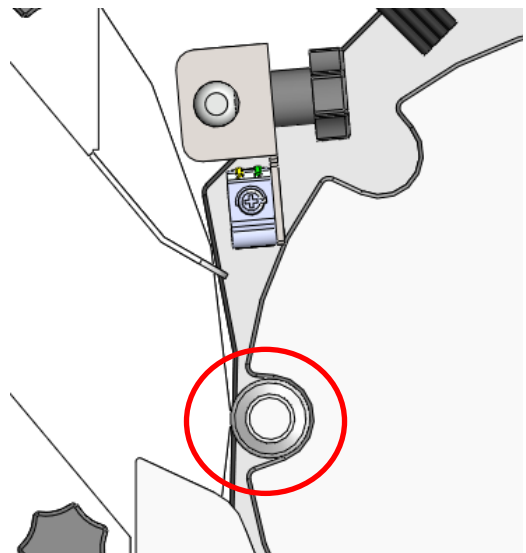


3.3 CAPPER-BOTTLE INFEED SENSOR

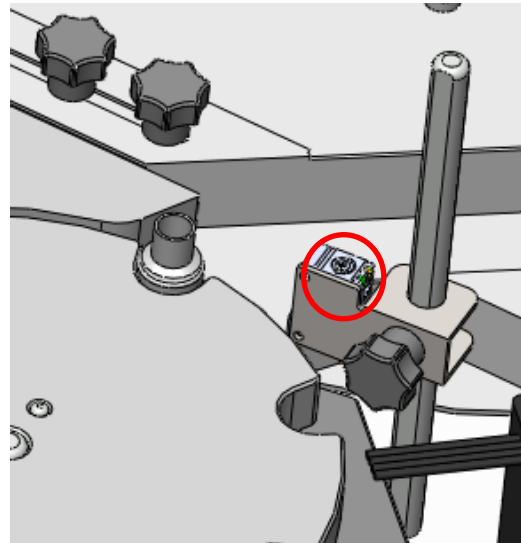
Step1. Ensure the sensor lighten green color when there is no bottle.



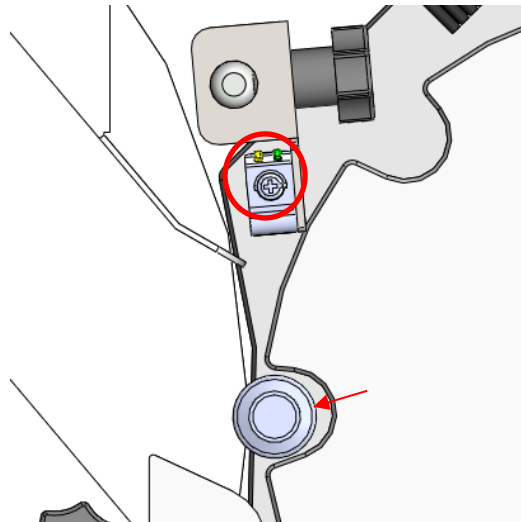
Step2. Put bottle in star wheel and please ensure the bottle touch the star wheel.



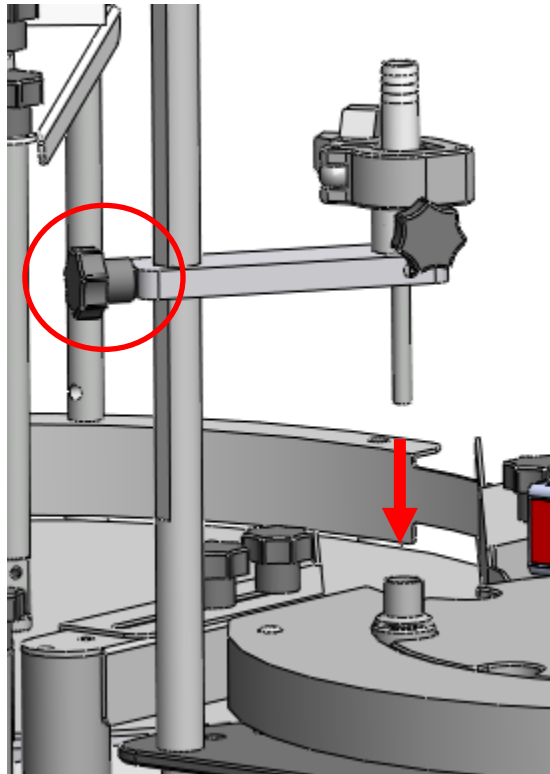
Step3. Adjust the sensor to detect the bottle. Ensure the sensor lighten both green and orange color when there is a bottle.



Step4. Move the bottle a bit of from star wheel, this moment, the sensor is not supposed to detect the bottle (the light should be lighten green color). If the sensor lighten both green and orange color, please adjust the position of sensor until the sensor only lighten green color.



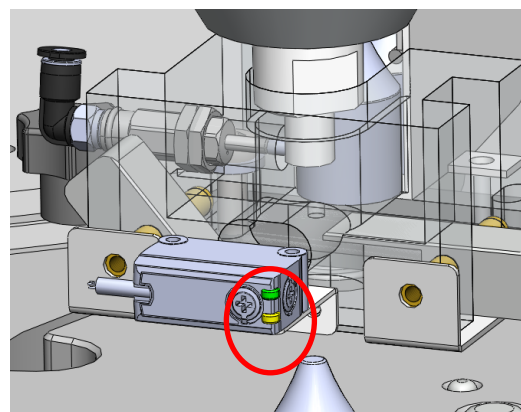
3.4 CAPPER-FILLING NOZZLE HEIGHT ADJUSTMENT



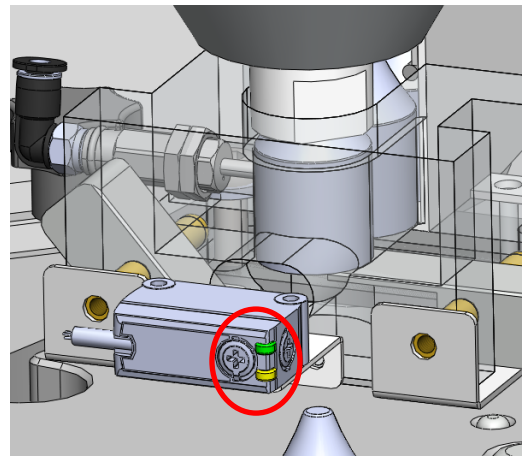
1. Loosen the star knob.
2. Adjust the nozzle to right above the bottle.
3. Make sure the nozzle would not interfere the movement of the bottle.

3.5 CAPPER-CAP POSITIONING SENSOR(Option)

Step1. Ensure the sensor lighten green color when there is no cap.

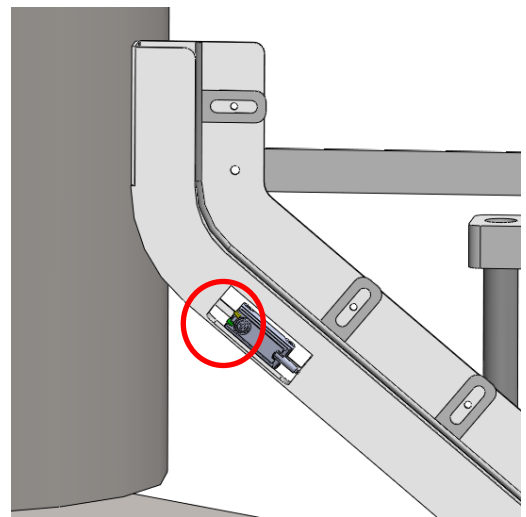


Step2. Put the cap and ensure the sensor lighten both green and orange color.

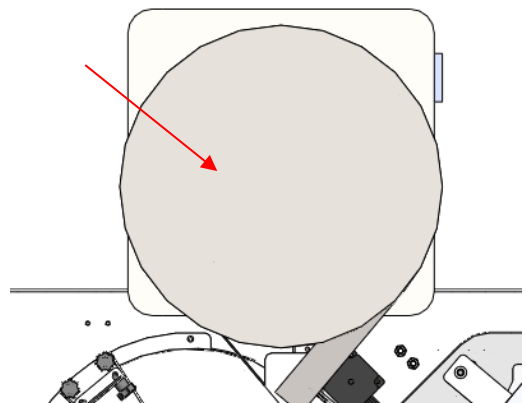


3.6 CAPPER-CAP FEEDING SENSOR

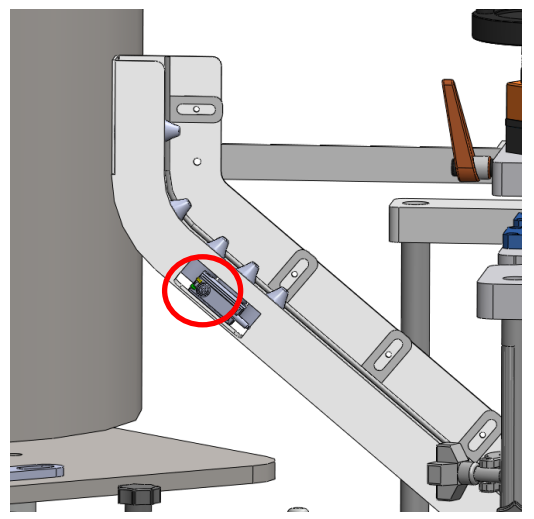
Step1. Ensure the sensor lighten green color when there is no cap.



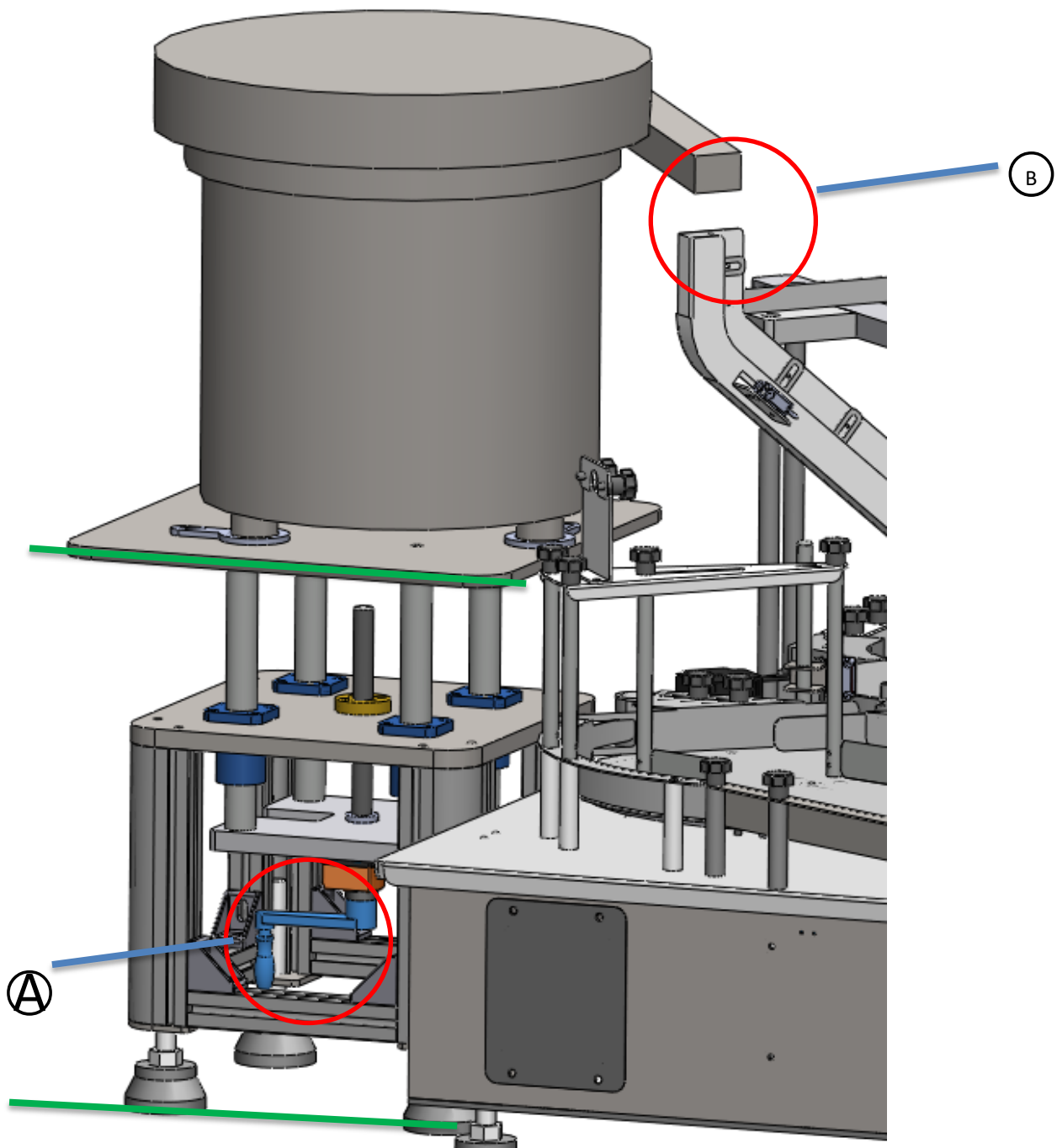
Step2. Ensure the cap is enough in cap vibration bowl.



Step3. Put the cap and ensure the sensor
lighten both green and orange color.

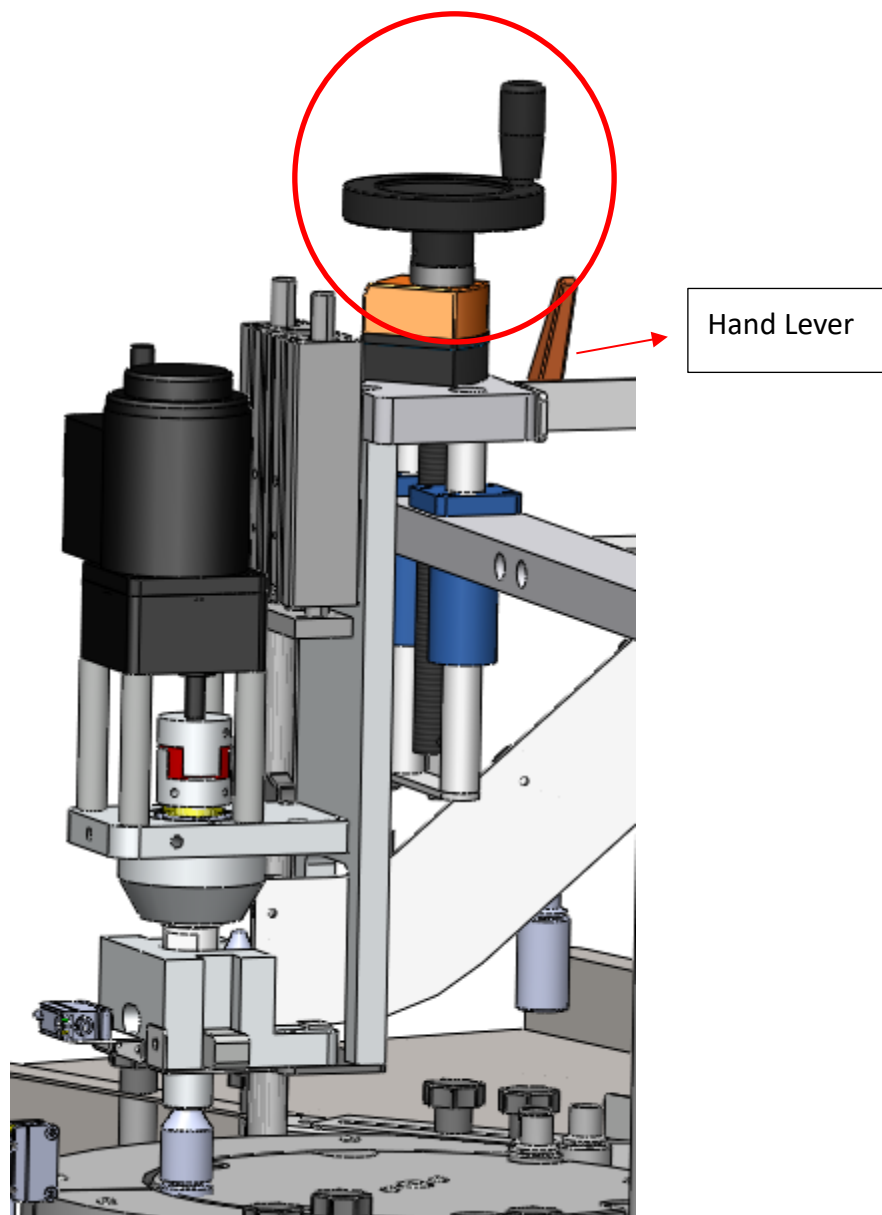


3.7 CAPPER-VIBRATION BOWL CONNECTION



1. Adjust the hand wheel(A) to connect with the cap chute(B).
2. If the caps are easily stuck at the conjunction of vibration bowl and the cap chute. Please readjust the position of vibration bowl or turn the hand wheel higher a little bit.
3. And please make sure that the vibration bowl mechanism is parallel to the placing table to ensure smooth cap feeding. (As the green lines show)

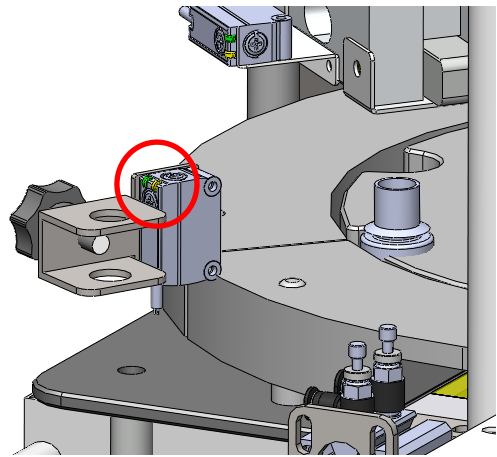
3.8 CAPPER-CAP PLACER HEIGHT ADJUSTMENT



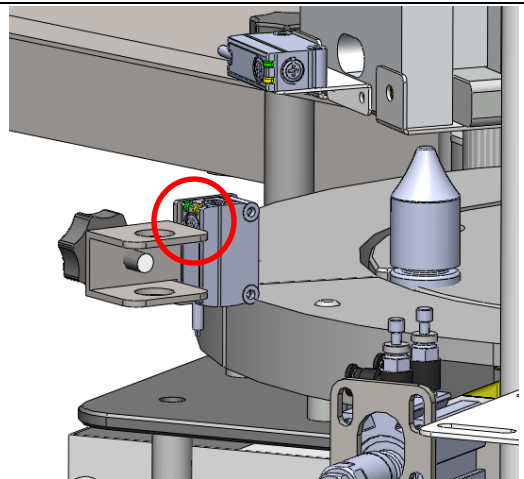
1. Put a bottle under the cap placer.
2. Loosen the hand lever.
3. Enter cap placing setting page. Press “test”, then “cap placing”.
4. Turn the hand wheel until the cap is place on the bottle well.

3.9 CAPPER-CAP SENSOR

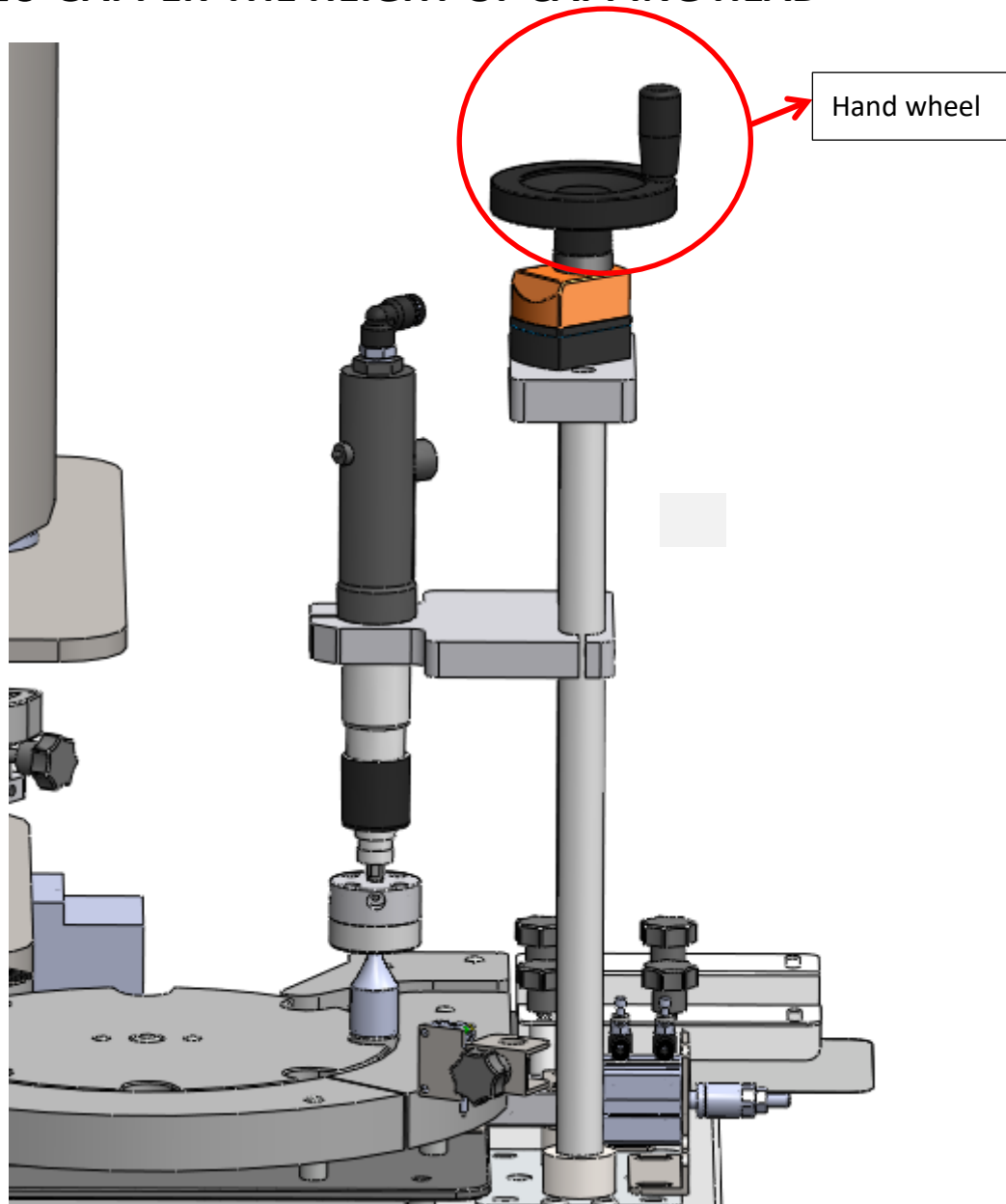
Step1. Ensure the sensor lighten green color when there is no cap.



Step2. Put the cap on the bottle and ensure the sensor lighten both green and orange color.

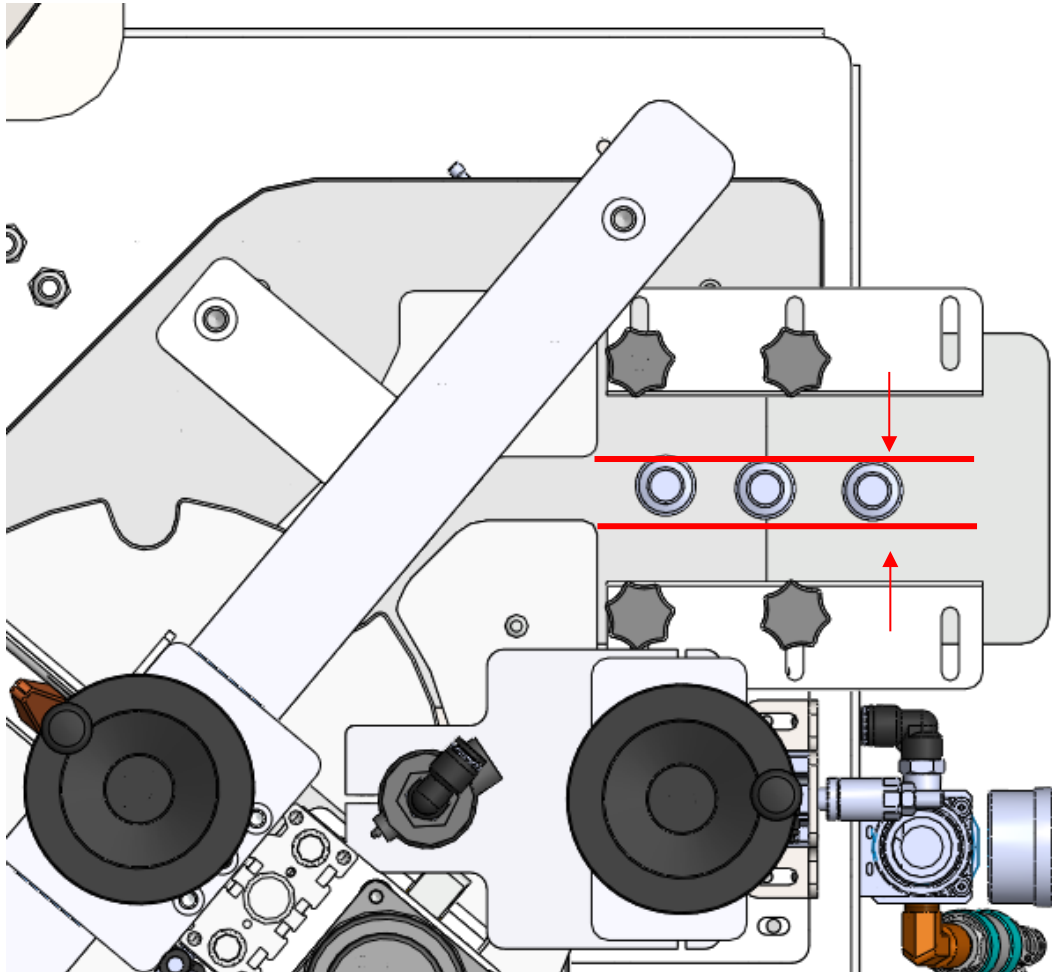


3.10 CAPPER-THE HEIGHT OF CAPPING HEAD



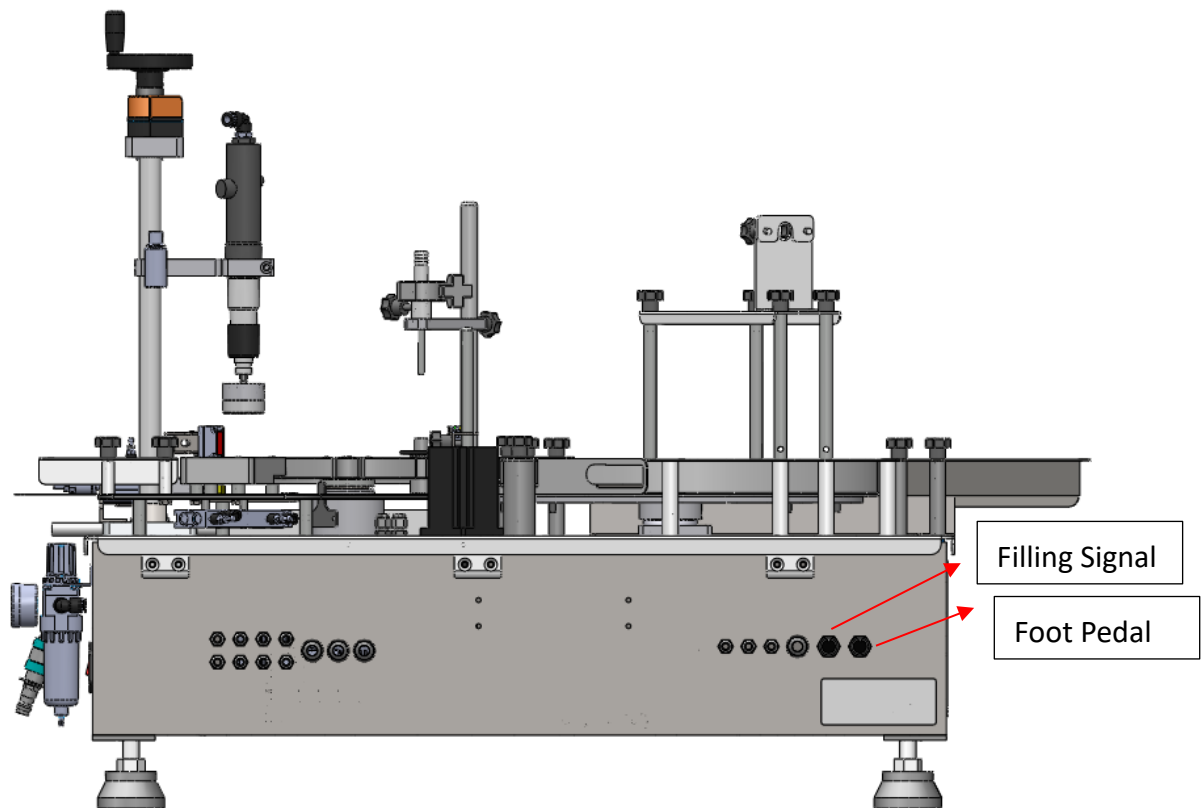
1. Put a capped bottle under the capping head.
2. Enter capping setting page. Press "test", "bottle gripping", then "capper down".
3. Turn the hand wheel down until there is click-click sound from the torque wrench.

3.11 CAPPER-BOTTLE OUTFEED TRACK ADJUSTMENT



1. Put some bottles on the outfeed track.
2. Loosen the star knobs.
3. Adjust both of the outfeed track to align with the edge of star wheel.

3.12 CAPPER-FILLING SIGNAL CONNECTION



1. Please connect the filling signal cable from the filler.

3.13 CAPPER-CONTROL PANEL

HMI SETTING

HOME PAGE

➤ **Output**

Show the current production amount.

➤ **Target Output**

If the output reaches target output, machine would stop automatically.

➤ **Reset**

Return the machine to default status.

➤ **Output Reset**

Reset output as zero.

➤ **Start**

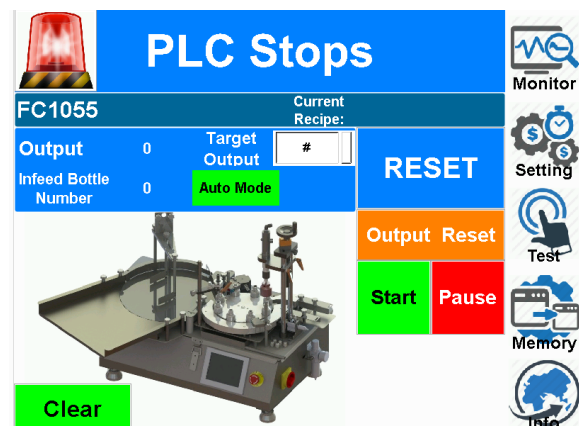
Press to start production.

➤ **Pause**

Press to pause production.

➤ **Clear**

To clear all the bottles in the star wheel.



FILLING SETTING

➤ **Filling Time**

Key in the time interval that the filler could finish the filling.

Ex: Let's say the filling needs 2s, please key in 2.5s in this column.

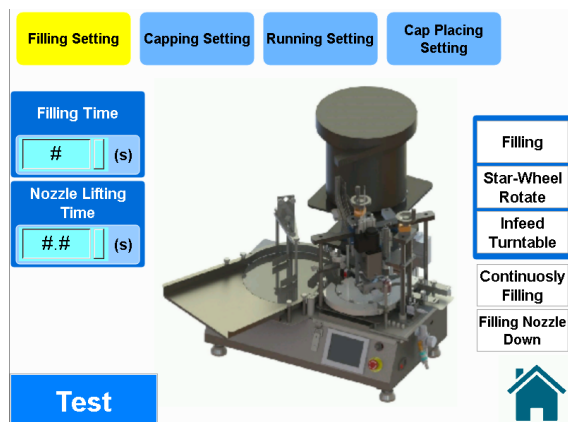
➤ **Nozzle Lifting Time**

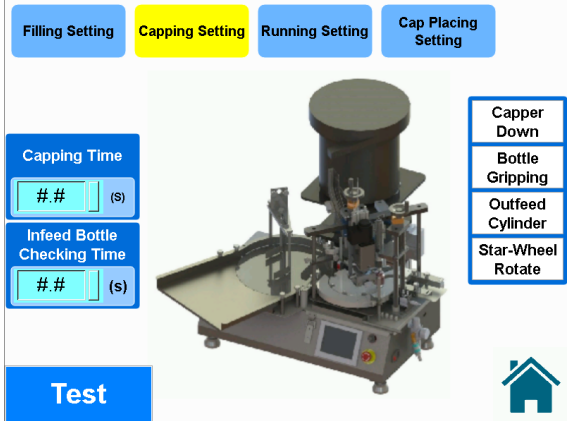
If there is filler connected, this function will be turned on.

The time for liquid filling before the nozzle lifting up

➤ **Test**

Turn on test mode.



<ul style="list-style-type: none"> ➤ Filling Test the filling. ➤ Star-Wheel Rotate Test the rotation of star-wheel. ➤ Infeed Turntable Test the rotation of turntable 	
<p><u>CAPPING SETTING</u></p> <ul style="list-style-type: none"> ➤ Capping Time The time you need for tightening a bottle. ➤ Infeed Bottle Checking Time The time that the sensor detects a bottle ➤ Test Turn on test mode. ➤ Capper Down Test the capping function. ➤ Bottle Gripping Test the function of bottle gripper under the star-wheel. ➤ Outfeed Cylinder Test the function of cylinder ejecting completed bottles. ➤ Star-Wheel Rotate Test the rotation of star-wheel. 	 <p>The screenshot displays the 'CAPPING SETTING' interface. At the top, there are four tabs: 'Filling Setting', 'Capping Setting' (highlighted in yellow), 'Running Setting', and 'Cap Placing Setting'. Below the tabs, on the left, are two input fields for 'Capping Time' and 'Infeed Bottle Checking Time', each with a numeric keypad and a unit '(s)'. In the center is a 3D model of the capping machine. On the right, there is a vertical list of settings: 'Capper Down', 'Bottle Gripping', 'Outfeed Cylinder', and 'Star-Wheel Rotate'. At the bottom left is a blue 'Test' button, and at the bottom right is a home icon.</p>

RUNNING SETTING

➤ **Output Complete Alarm Switch**

When the target output achieved, the alarm would arise to warn the operator.

➤ **Foot Pedal Mode**

The star-wheel would turn 1 grid only if we step the foot pedal.

➤ **Filling Switch**

Turn on off the filling function.

➤ **Capping Switch**

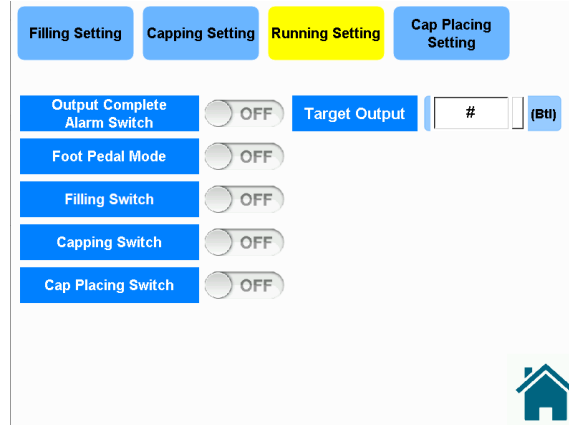
Turn on off the capping function.

➤ **Cap Placing Switch (Optional)**

Turn on off the cap placing function.

➤ **Target Output**

If the output reaches target output, machine will stop automatically.



CAP PLACING SETTING

➤ **Cap Placing Time**

The time of cap placer putting a cap on the bottle.

➤ **Cap Refilling Time**

The time duration that the cap refiller operates to feed the cap.

➤ **Cap Refilling Checking Time**

The time of sensor checking if the cap placer is out of cap.

➤ **No Cap Checking Time (Cap Chute)**

The time of sensor checking if there is a cap on top of bottle.

➤ **Test**

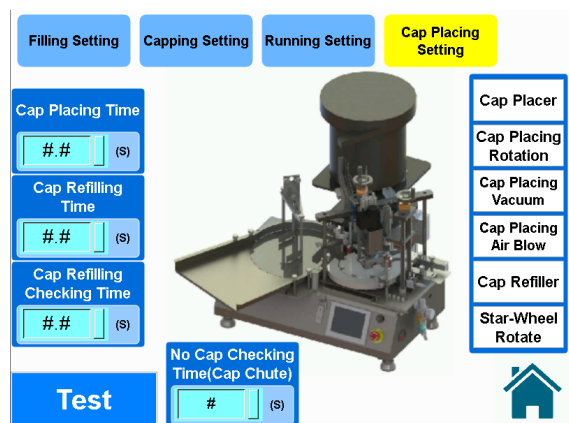
Turn on test mode.

➤ **Cap Placer**

Test the function of cap placing.

➤ **Cap Placing Rotation**

Test the function of cap placer rotating



➤ Cap Placing Vacuum

Test the function of cap vacuum suction

➤ Cap Placing Air Blow

Test the function of air blowing the cap to be placed on the bottle

➤ Cap Refiller

Test the function of cap refilling.

➤ Star-Wheel Rotate

Test the rotation of star-wheel.

➤ Recipe Name

Please name your recipe in this column.

➤ Current

The present value in setting page.

➤ RECIPE

The parameter value of selected recipe.

➤ Up and Down Button

To select saved recipe.

➤ SAVE

To save PV as recipe.

➤ READ

To load parameter of selected recipe.

Memory 1

	Current	RECIPE
Recipe Name		
Infeed Bottle Checking Time	0.0(s)	0.0(s)
Capping Time	0.0(s)	0.0(s)
Filling Time	0(s)	0(s)
Filling Volume	0.0	0.0
Nozzle Lifting Time	0.0(s)	0.0(s)
Cap Placing Time	0.0(s)	0.0(s)
Cap Refilling Time	0.0(s)	0.0(s)
Cap Refilling Checking Time	0.0(s)	0.0(s)
No Cap Checking Time	0 (s)	0 (s)

▲

▼

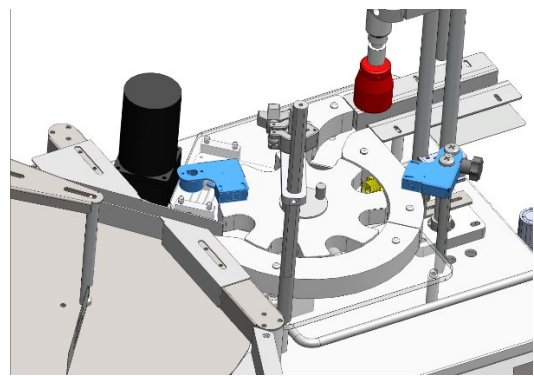
SAVE

LOAD

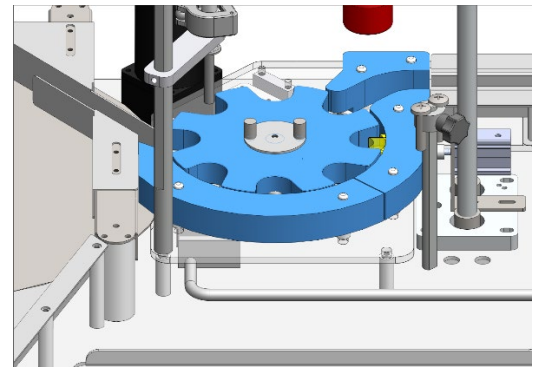
Home

3.14 CAPPER-STARWHEEL REPLACEMENT

Step1. Lift the bottle infeed sensor and cap sensor.

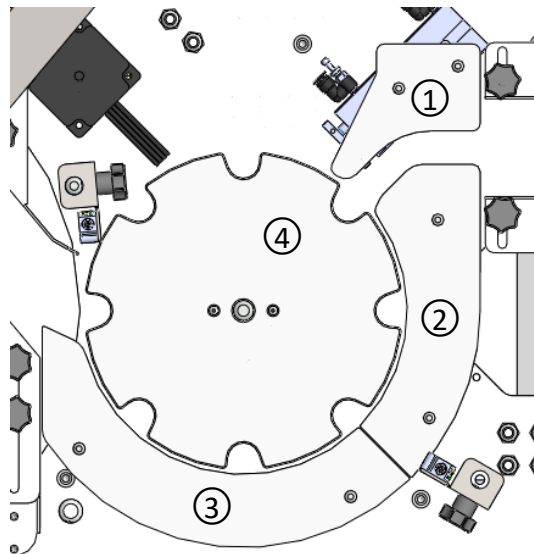


Step3. Take out the components of star wheel.

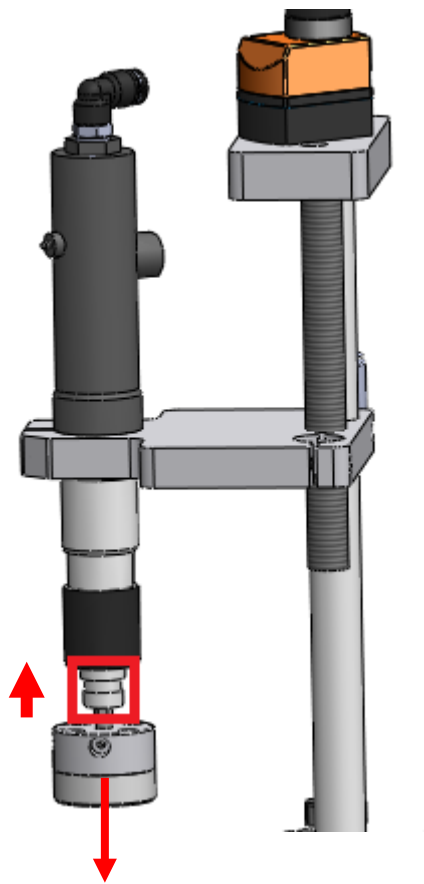


Step4. Follow the sequence of number to put the components of star wheel. Aim at the two holes and you can fit it easily.

Hint: The modules of star wheel are marked the number. Please turn the marked side down to fit it.



3.15 CAPPER-CAPPING HEAD REPLACEMENT



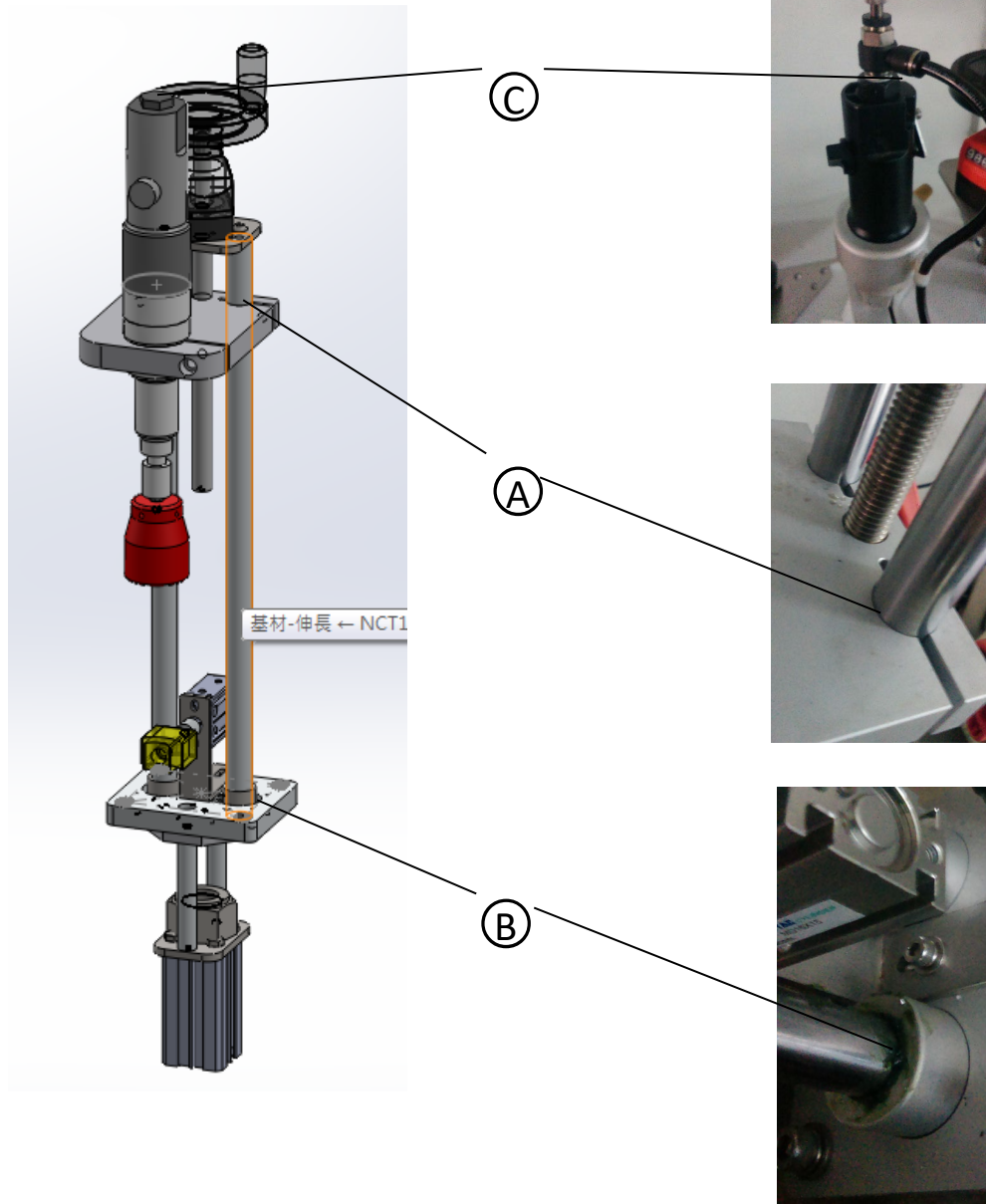
1. Lift up the latch of torque wrench.
2. Pull out the capping head.
3. Lift up the latch again.
4. Install the correct capping head.

3.16 Operation

- 1. After setting up by above steps, operator could press “Start” Button to run the production.**
- 2. Operator should put bottle manually on the accumulating turntable.**
- 3. Another operator can collect the bottles after labeling**

4 MAINTENANCE

Caution: Before doing any maintenance, please switch off the power and cut air supply first.



1. Please oil the seams of adjustor and steel bar marked as (A) once a week.
2. Please oil the seams of steel bar and plate marked as (B) once a week.
3. Please oil the pneumatic tube of capping head marked as (C) once a week.

Hint: Press the edge of pneumatic tube, you can pull out it.

5 TROUBLESHOOTING

In case there is any problem or malfunction that you cannot solve, please contact Neostarpack immediately

Trouble(s)	Solution
No Power	<ol style="list-style-type: none"> 1. Check if the power switch is "ON". 2. Check if the plug is connecting or broken. 3. Check if the breaker is overloading. 4. Check if the safety fuse is burn.
Stop Running	<ol style="list-style-type: none"> 1. Check if the HMI touch screen show Running... 2. Repeat the steps of operations: push and twist emergency button, then push start button. 3. Switch to test mode to check individual mechanism work or not. 4. Check if the infeed sensor detects bottle. 5. Check if any message show in HMI touch screen.
Turntable Stop Running	<ol style="list-style-type: none"> 1. Please enter filling setting page. Press "infeed turntable". 2. Check the speed controller SD22 is broken or not. 3. Check if the PLC Y04 is on. 4. Check if the cable is loosened.
Star Wheel Stop Running	<ol style="list-style-type: none"> 1. Please enter filling setting page. Press "Star Wheel". 2. Check the speed controller SD22 is broken or not. 3. Check if the PLC Y0 is on. 4. Check if the cable is loosened.
Cap Placer Won't Activate	<ol style="list-style-type: none"> 1. Check if there are enough caps in the cap chute. 2. Check if the sensor detects the cap. 3. Check if the reed sensor of cylinder is on. 4. Check if the air pressure is on.
Fail In Capping	<ol style="list-style-type: none"> 1. Please increase the capping torque. 2. Please readjust the height of capper. 3. Please readjust the air valve of capper. 4. Please make sure the bottle would not spin while capping.