MICROTEC

APEX QUICK GUIDE

X-PeelPro

APEX X-Peel Pro Fully Automatic Peeler and Unloader

One picture per step. Scan the QR code to watch the machine in our video.



Watch the video

! Safety first

This machine moves by itself

The long arm, the suction nozzles and the grippers move on their own when the rotary press sends a signal. Keep hands, hair and loose clothes away.

Safety light curtain

If a person or object crosses the light curtain in Auto, the machine stops and the light turns red. Never block or bypass it.

Reaching in? Stop the machine first

Press the red EMERGENCY STOP button before you clear a jam or touch the arm or grippers.

220V single-phase power with a good ground

Ground: less than 4 ohms, ground wire thicker than 4 mm², no longer than 65 ft (20 m). Have an electrician check it.

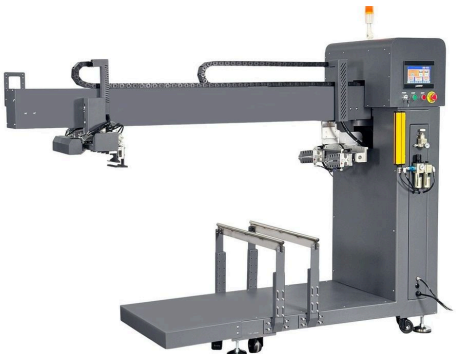
Compressed air inside
Turn off the air before you work on hoses, nozzles or grippers.

Indoors, dry, level floor
32–104°F, humidity below 80%. Away from water, heavy dust and anything that can burn.

Emergency? Press the red **EMERGENCY STOP** button on the control panel. The machine stops at once and the light turns red. When it is safe: twist the button to release it, hold **RESET** for 2 seconds so the nozzles and grippers go home, then press **START**.

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1 Set up

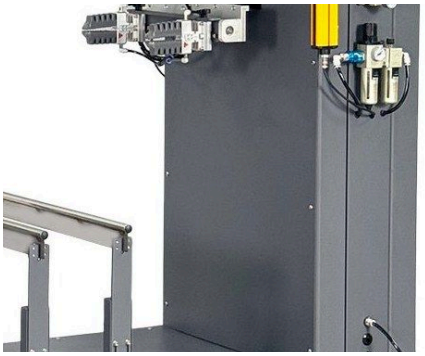


1. What the X-Peel Pro does

It stands next to your APEX X-series rotary press (X4 / X6 / X8). After a shirt is pressed, it peels the DTF film off and then lifts the shirt off the platen onto the garment rack. No peeling or unloading by hand.

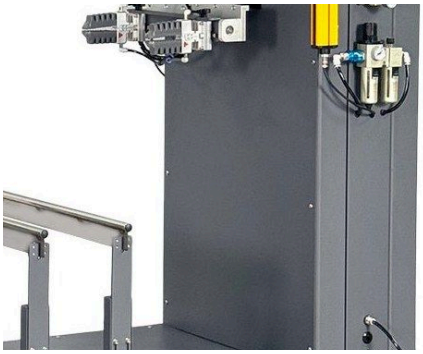
2. Roll it into place

Put it on a level floor next to the rotary press. Lower the leveling feet so it cannot roll.

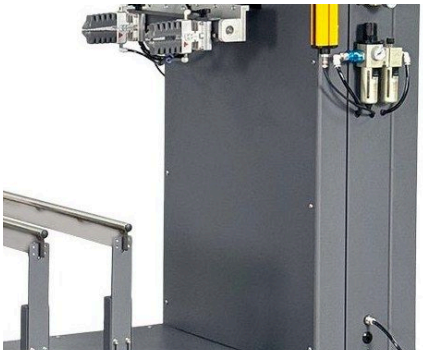


3. Connect the network cable to the rotary press

The ports are low on the side of the column. Plug the network cable from the rotary press into the Ethernet port. This is how the press tells the X-Peel Pro when to peel and unload.







4. Connect clean, dry compressed air

Connect the air hose from your compressor to the air inlet. Without air the nozzles and grippers cannot work.

5. Check the air pressure gauge

The filter and gauge set on the column shows the machine air pressure. The small regulator above it sets how hard the shirt grippers squeeze. Set the machine air to 58 psi (4 bar).

6. Plug in 220V power

Use a 220V single-phase, 60 Hz supply with a good ground. If you are not sure, ask an electrician.

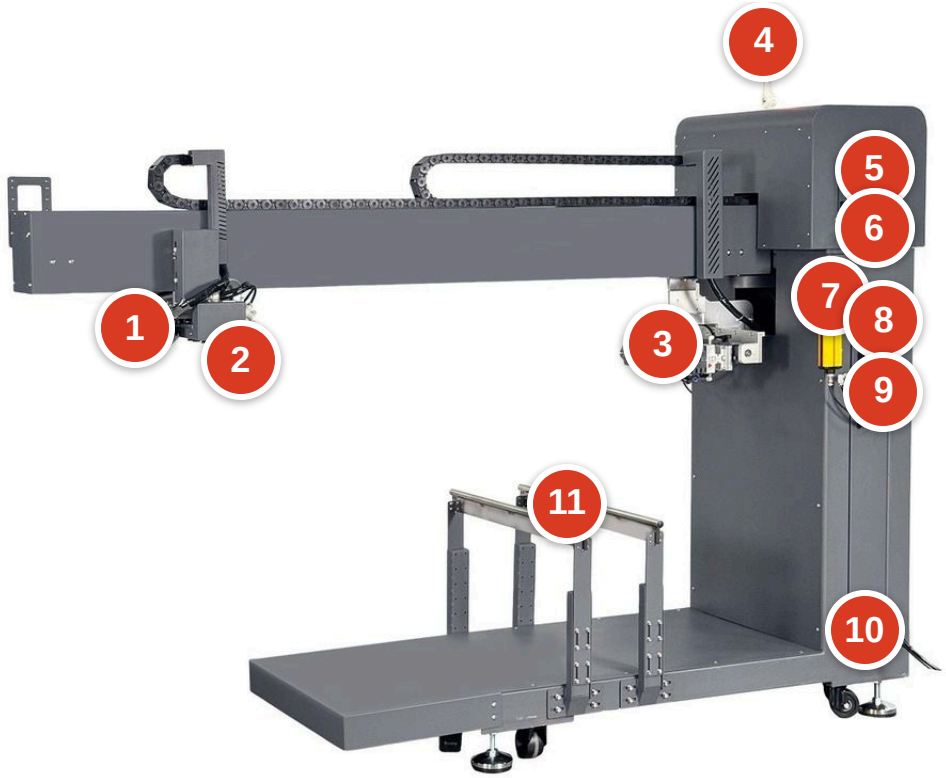


7. Turn the POWER key to ON

Turn on your main breaker first. Then turn the POWER key on the control panel. The screen comes on.

Air supply: set it to **58 psi** (4 bar). Use a compressor that gives at least 4.2 CFM, with a 10-gallon tank or bigger.

2 Know your machine



1 Vacuum suction nozzles
Pick up the DTF film by suction.

2 Film-peeling grippers
Clamp the film and peel it off.

3 Flexible grippers
Clamp the finished shirt and unload it.

4 Status light
Green = running in Auto. Yellow = Teach mode. Red = emergency stop, light curtain or alarm.

5 Touch screen
Pick a saved program (M1–M6) and teach the peel position.

6 POWER · START · RESET · EMERGENCY STOP
The four controls under the screen. START = Auto mode. Hold RESET 2 sec to send nozzles and grippers home.

7 Safety light curtain
Stops the machine if someone reaches in during Auto.

8 Gripper air regulator
Sets the air pressure for the flexible grippers — how hard they hold the shirt.

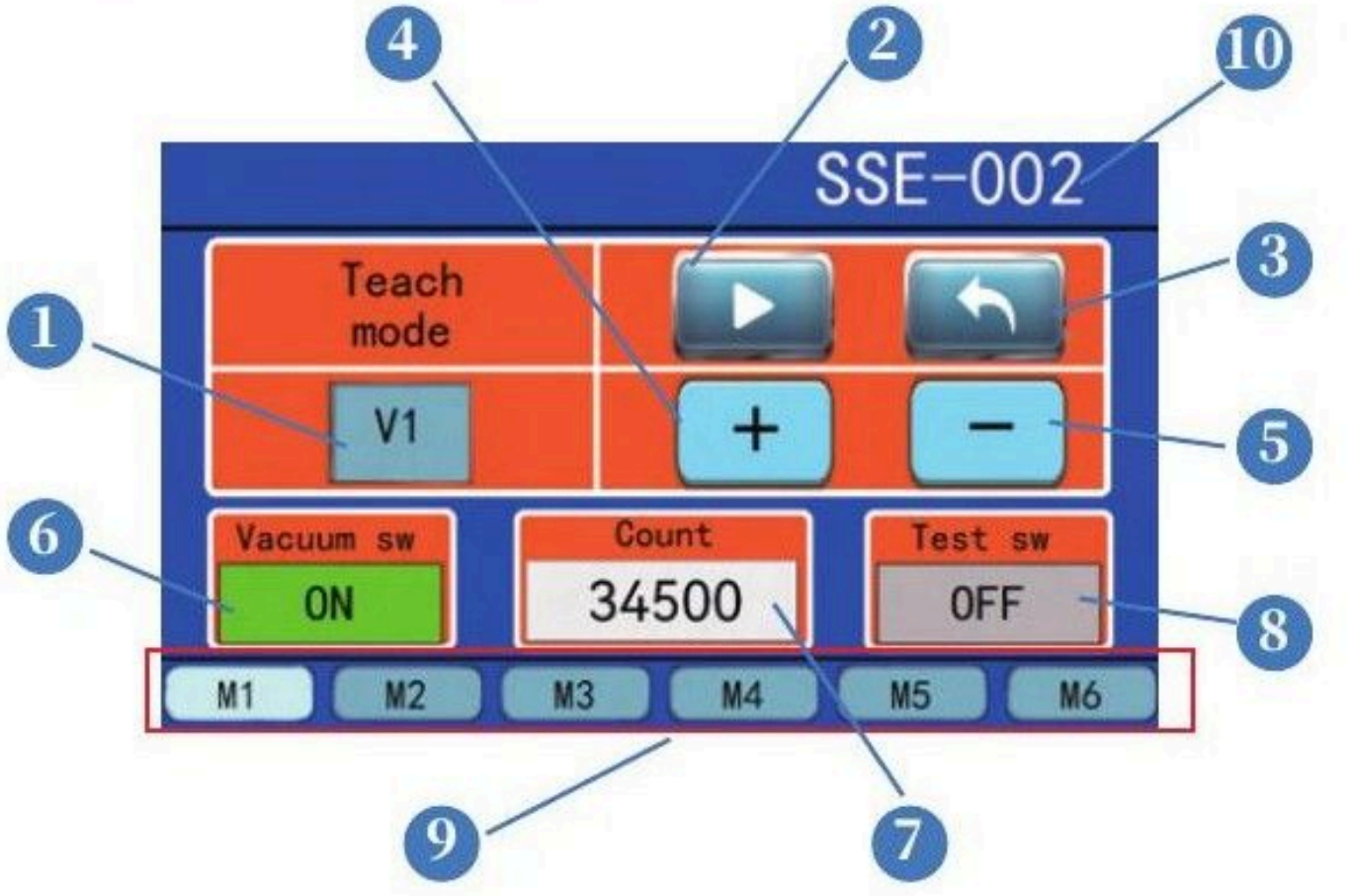
9 **Air filter and pressure gauge**
Sets and shows the machine air pressure.

10 **Air inlet · Ethernet port · power cord**
Low on the column. The Ethernet port connects to the rotary press.

11 **Garment rack**
Finished shirts are placed here.

⚠ **Light turns red?** The emergency stop is pressed, the light curtain was crossed, or there is an alarm. Read the message on the screen.

3 Control panel and touch screen



1 **V1 indicator**
Flashes in Teach mode while you move the suction nozzles.

2 **▶ Confirm**
Teach mode: confirms the current step.

3 **↶ Back**
Teach mode: leave without saving.

4 **+**
Teach mode: moves the nozzle position one way.

5 **–**
Teach mode: moves the nozzle position the other way.

6 **Vacuum sw**
Turns the nozzle suction ON / OFF.

7 **Count**
Adds 1 each peel. Hold 2 sec to reset to 0.

8 **Test sw**
Teach mode: turn ON, then press START once to try the taught moves.

9 **M1 – M6**
6 saved peel programs. Hold 2 sec to pick one.

10 **Service area**
For technicians only. Do not use — contact MicroTec support.

Teach a new peel position



1. Make sure the light is yellow

Green (Auto)? Press **EMERGENCY STOP**, then twist it to release.



2. Pick a program slot

Hold **M1** – **M6** for 2 sec (for example M2).



3. Move to the peel position

Tap ▶. V1 flashes. Tap + / − until the nozzles are over the film.



4. Finish

Tap ▶ again. V1 goes home and "Finish teach!" pops up.



5. Save

Tap **Save**. (Tap **X** to throw it away.)



6. Test it

Tap **Test sw** to turn it ON. Press the green **START** button once and watch. Not right? Teach again.

⚠ You can only teach when the light is **yellow** (not running in Auto). Keep hands clear while the arm moves.

Other settings (gripper and cylinder positions) are for technicians only. Contact MicroTec support.

Quick reference

I WANT TO…	DO THIS
Start automatic peeling	Pick **M1**–**M6** → green **START**
Send nozzles and grippers home	Hold **RESET** 2 sec
Restart after the light curtain stopped it	Hold **RESET** → **START**
Reset the counter	Hold **Count** 2 sec
Stop right now	Press **EMERGENCY STOP**

4 Run automatic peeling and unloading



1. Check power and air, then turn POWER on

The network cable to the rotary press must be plugged in.



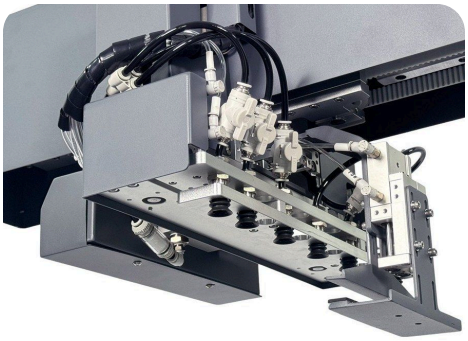
2. Pick your program

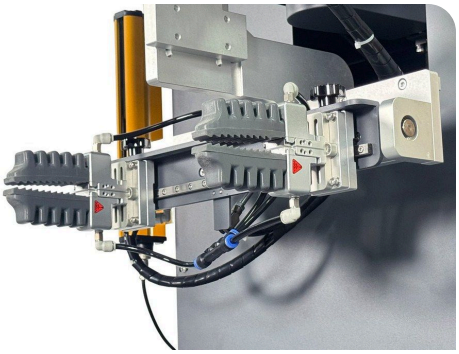
Hold **M1**–**M6** for 2 sec to pick the saved program for this job.



3. Press the green START button

The screen shows AUTO mode and the light turns green.







4. It peels the film by itself

When the rotary press sends the signal, the nozzles pick up the film and the grippers peel it off. The counter adds 1 each time.

5. It unloads the shirt

The flexible grippers lift the finished shirt off the platen.

6. Take shirts off the rack

Finished shirts are placed on the garment rack. Stay outside the light curtain while it runs.

⚠ Stopped by the light curtain or EMERGENCY STOP? Make it safe, release the button if pressed, hold RESET, then press START.

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5 If something is wrong

⚠ "Servo alarm!" on the screen

1. Turn off the power.
2. Look for something jammed or blocking the arm, and clear it.
3. Turn the power back on.
4. Still there? The home switch may be loose — call us.

⚠ "Cylinder alarm!" on the screen

1. Check that the air is on and the hose is connected.
2. Check the air pressure gauge.
3. Still there? A cylinder limit switch may have moved or a wire is loose — call us.

Stopped and light is red

1. Did someone cross the light curtain? Step back.
2. Is the EMERGENCY STOP pressed in? Twist it to release.
3. Hold RESET, then press START.

Film isn't picked up

1. Check that Vacuum sw shows ON.
2. Check the air supply.
3. Teach the peel position again.

Shirt slips out of the grippers

1. Check the gripper air regulator and the gauge.
2. Not sure what pressure to use? Call us.

Doesn't run when the press finishes

1. Check that the light is green (AUTO). If not, press START.
2. Check the network cable to the rotary press.

Specifications

	X-PeelPro
Works with	APEX X4 / X6 / X8 rotary press
Output	Up to 420 pcs / hour
Power	220V single-phase · 2 kW · 9 A · 60 Hz
Air supply	58 psi (4 bar) · 4.2 CFM
Air	Clean, dry compressed air
Controller	PLC (MX310-32 + TK8072IP)
Size (W × D × H)	1604 × 610 × 1612 mm
Net weight	622.6 lb
Working room	32–104°F · below 80% RH

Still stuck? Call us.

Phone

(714) 261-9498

Mon–Fri · 7:30 am – 5:00 pm Pacific

Email

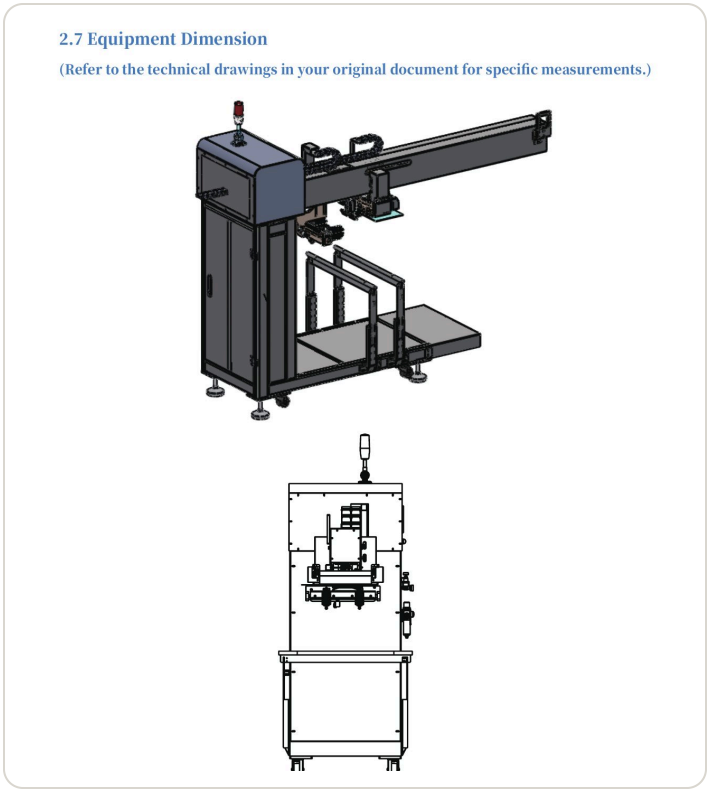
sales@microtecusa.com

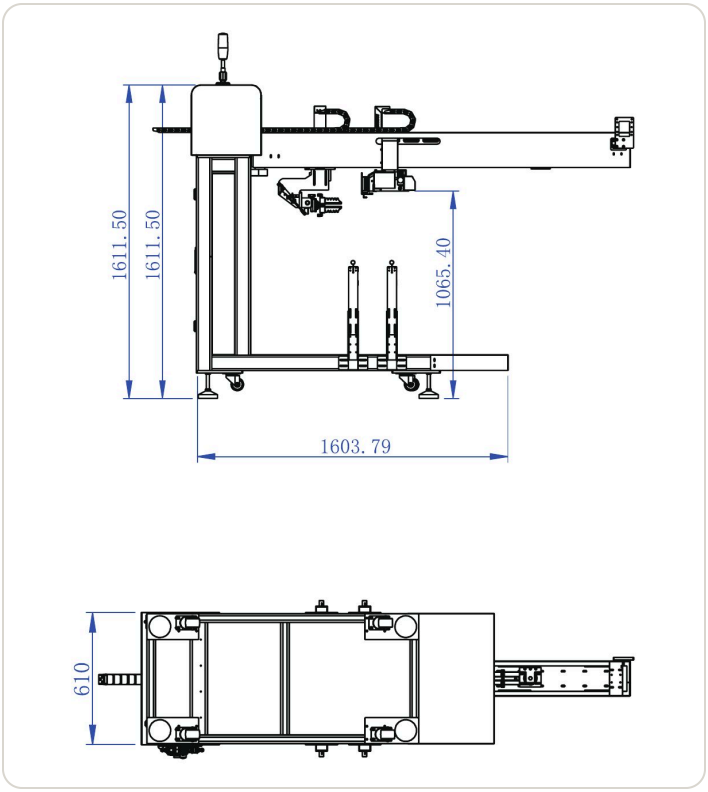
Free lifetime tech support

Dimensions & diagrams

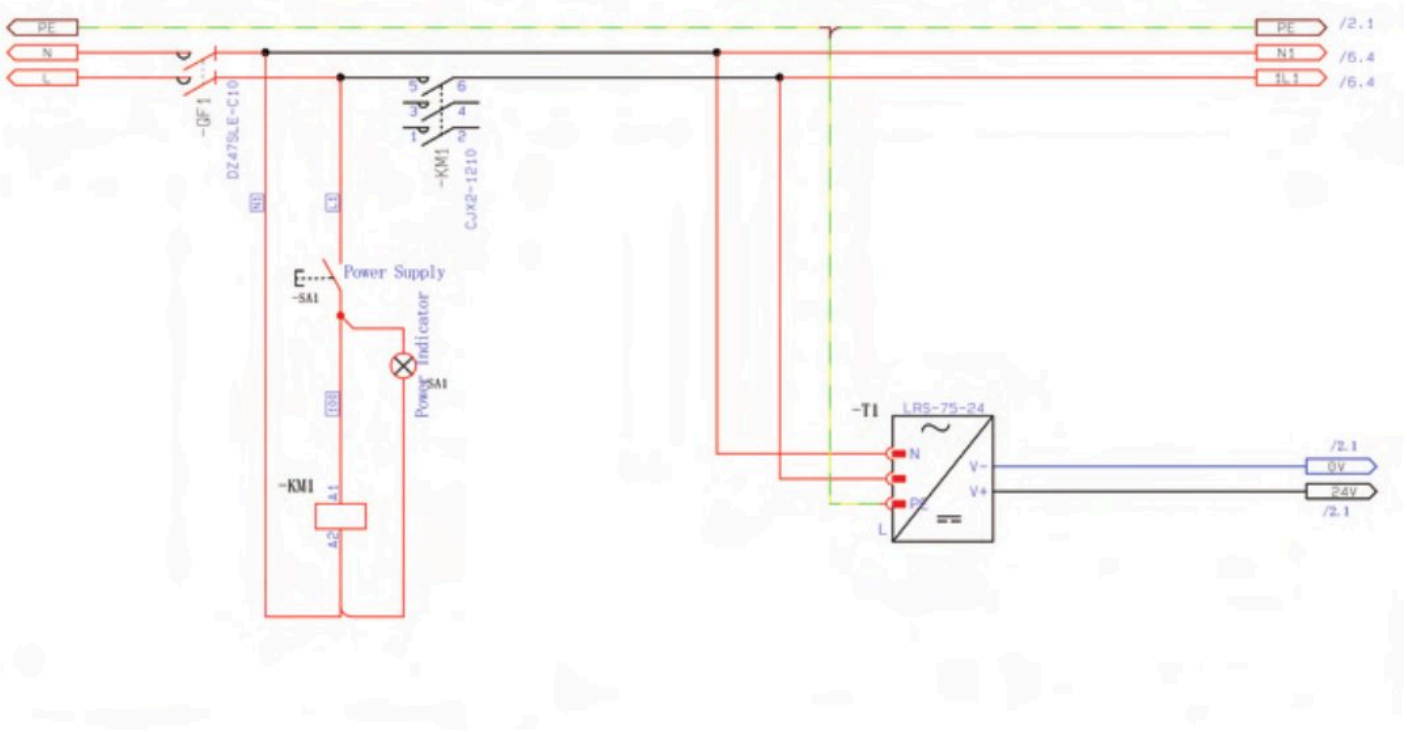
For service technicians. **Unplug the machine** and **disconnect the air** before opening any cover.

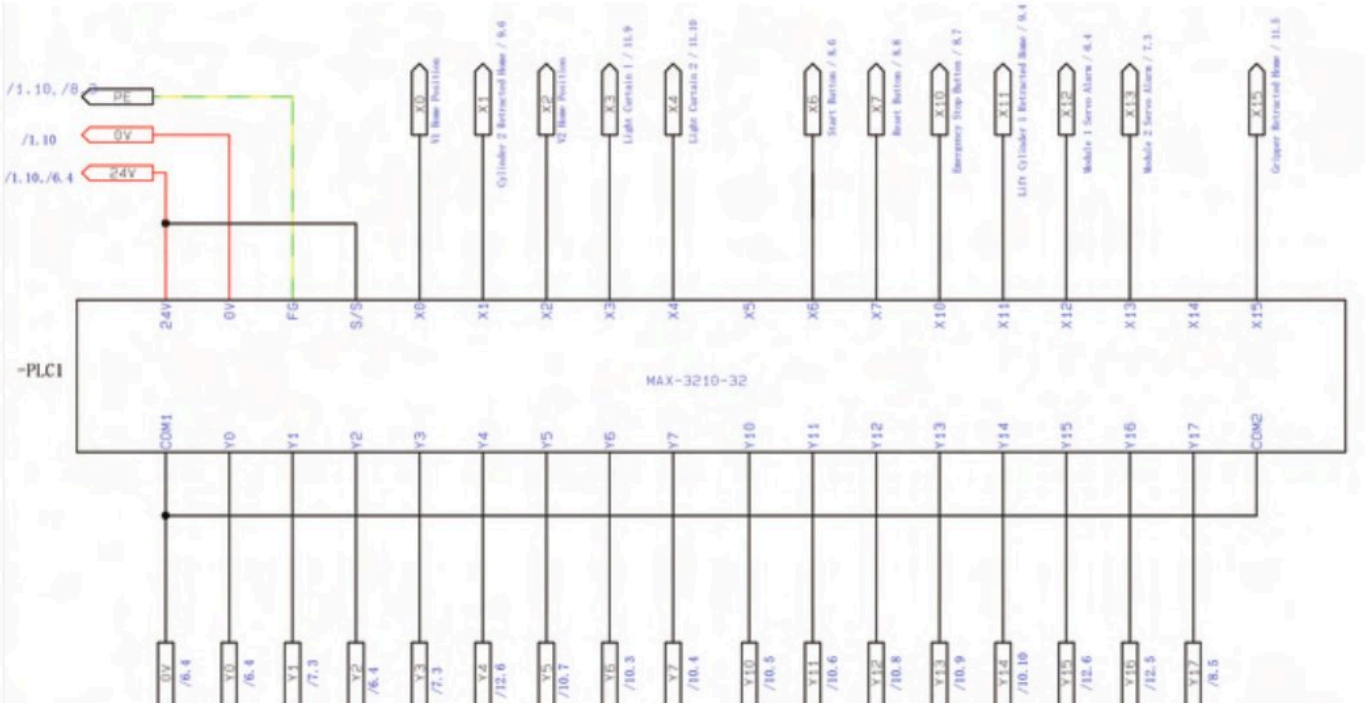
Dimensions (mm)

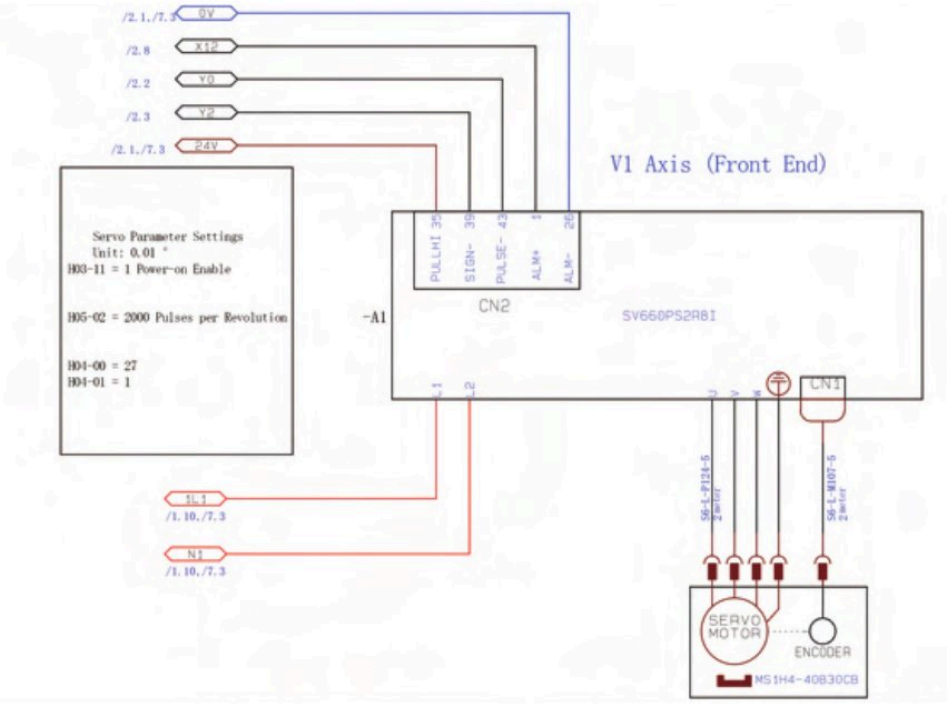


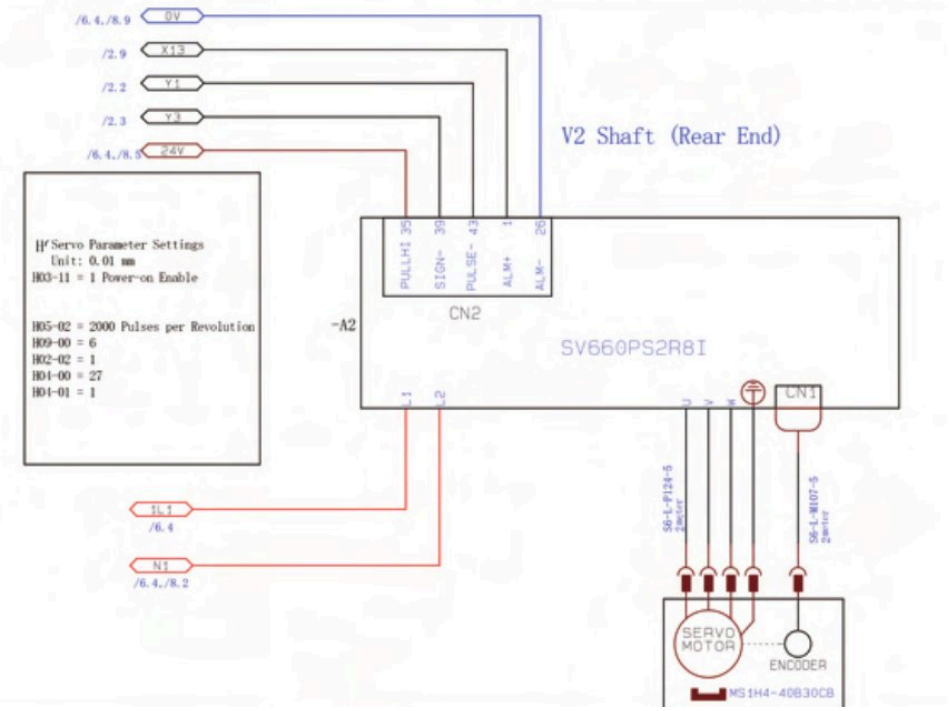


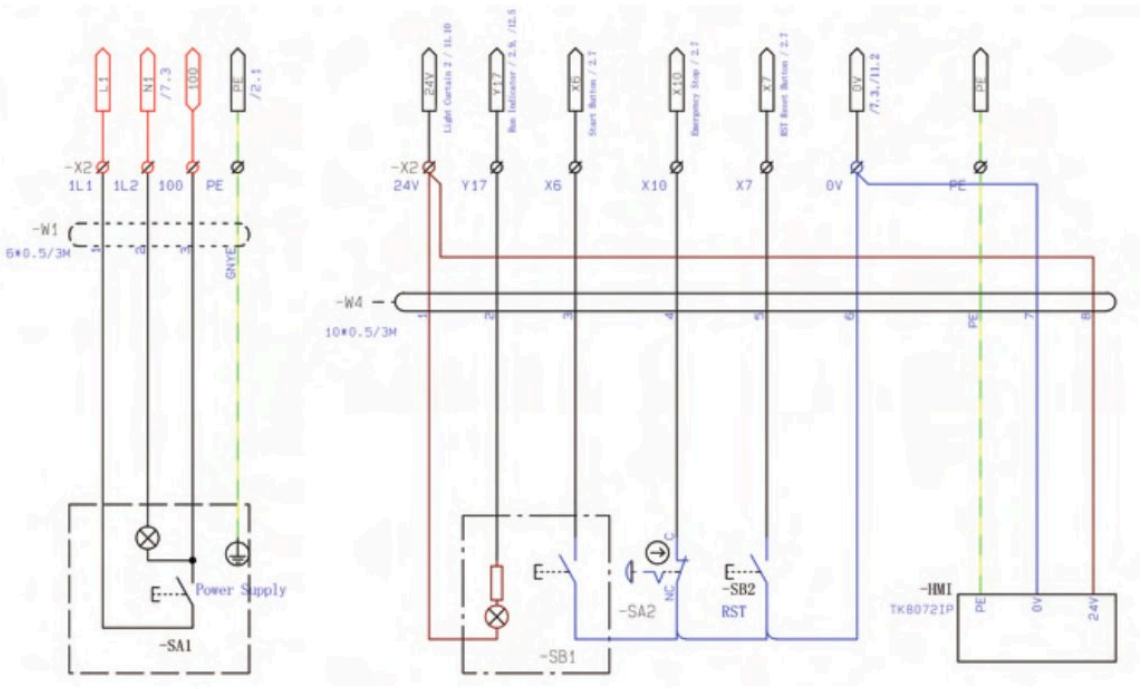
Wiring diagram

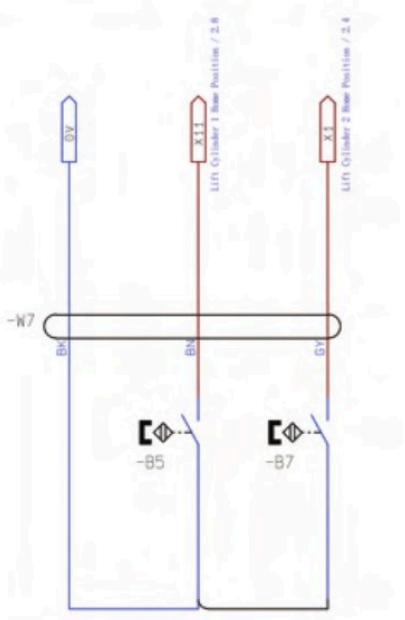


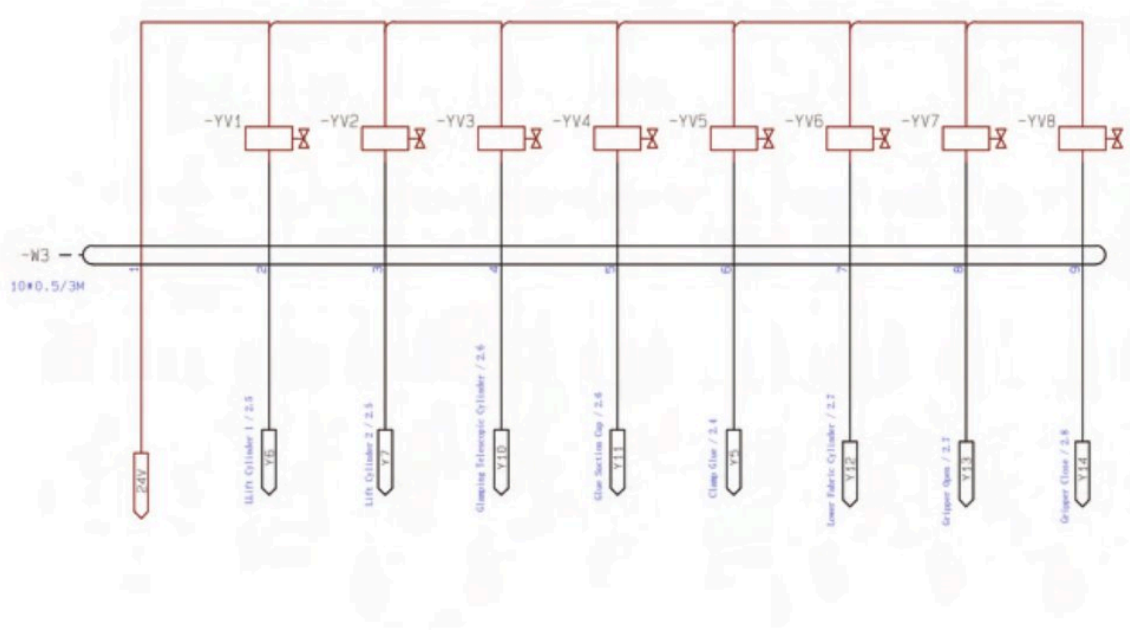


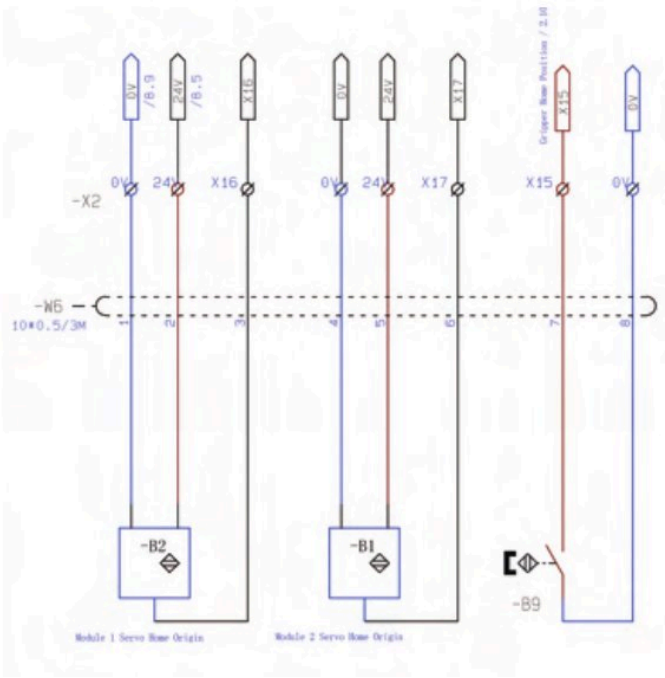

V1 Axis (Front End)
/2.1,/7.3
0V
/2.8
X12
/2.2
Y0
/2.3
Y2
/2.1,/7.3
24V
Servo Parameter Settings
Unit: 0.01 °
H03-11 = 1 Power-on Enable
H05-02 = 2000 Pulses per Revolution
H04-00 = 27
H04-01 = 1
PULLHI 35
SIGN- 38
PULSE- 43
ALM+ 1
ALM- 26
CN2
-A1
SV660PS2R8I
L1
L2
U
V
W
CN1
SERVO MOTOR
ENCODER
MS1H4-40B30CB
1L1
/1.10,/7.3
N1
/1.10,/7.3

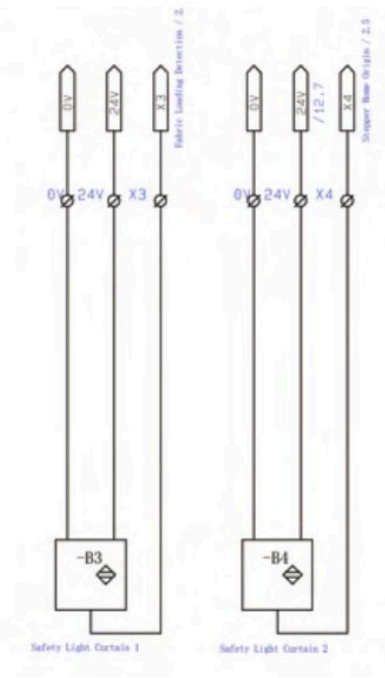

V2 Shaft (Rear End)
/6.4,/8.9
0V
/2.9
X13
/2.2
Y1
/2.3
Y3
/6.4,/8.5
24V
Servo Parameter Settings
Unit: 0.01 mm
H03-11 = 1 Power-on Enable
H05-02 = 2000 Pulses per Revolution
H09-00 = 6
H02-02 = 1
H04-00 = 27
H04-01 = 1
PULLHI 35
SIGN- 38
PULSE- 43
ALM+ 1
ALM- 26
CN2
-A2
SV660PS2R8I
L1
L2
U
V
W
CN1
SERVO MOTOR
ENCODER
MS1H4-40B30CB
1L1
/6.4
N1
/6.4,/8.2

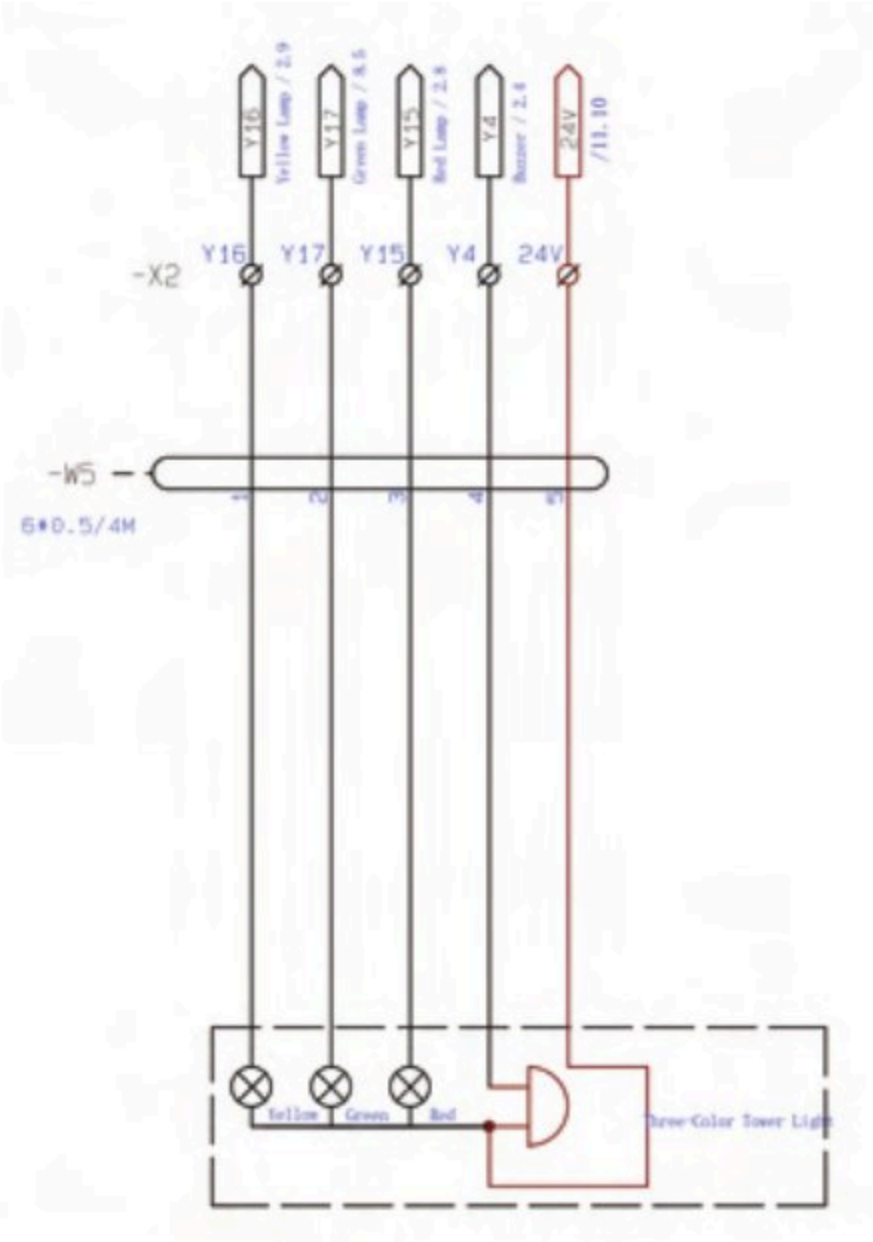

L1
N1
/7.3
100
PE
/2.1
-X2
1L1
1L2
100
PE
-W1
6*0.5/3M
GNYE
Power Supply
-SA1
24V
Y17
X6
X10
X7
0V
/7.3,/11.2
PE
-X2
24V
Y17
X6
X10
X7
0V
PE
-W4
10*0.5/3M
1
2
3
4
5
6
PE
7
8
-SB1
-SA2
NC
-SB2
RST
-HMI
TK8072IP
PE
0V
24V


0V
X11
X1
-W7
-B5
-B7

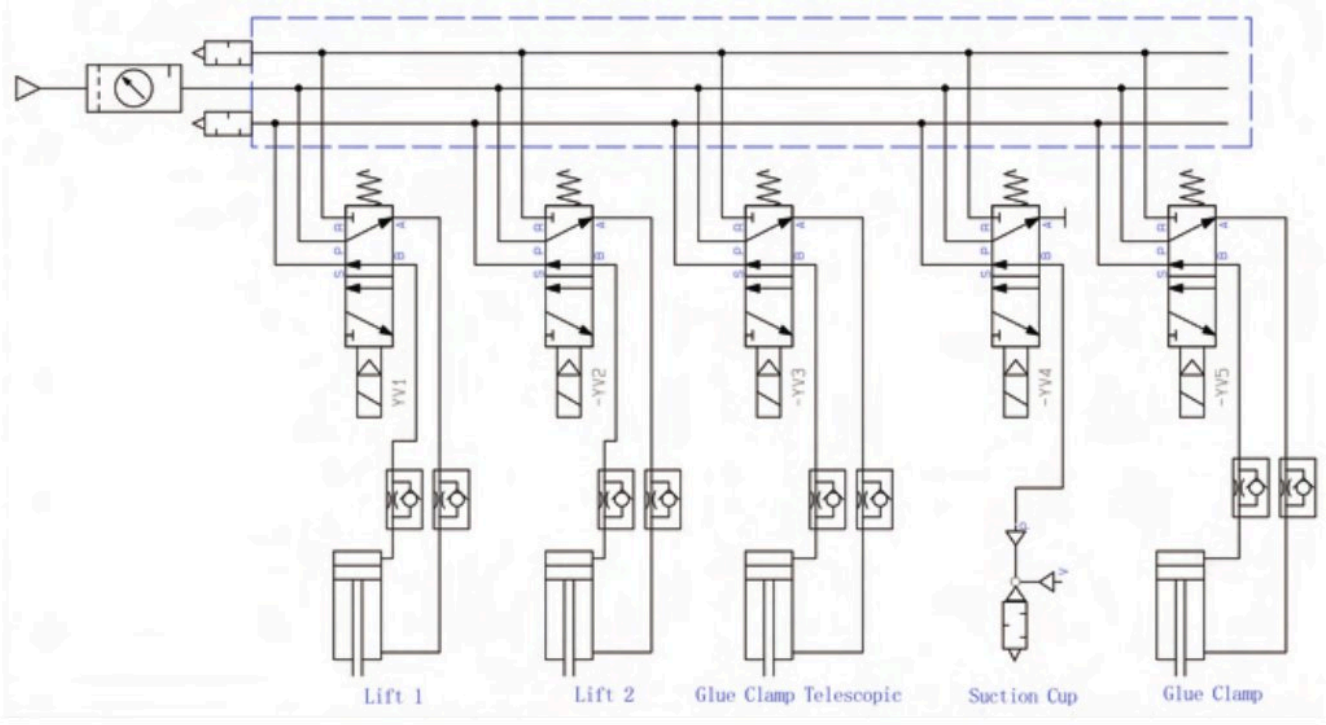

-YV1
-YV2
-YV3
-YV4
-YV5
-YV6
-YV7
-YV8
-W3
10*0.5/3M
24V
Lift Cylinder 1 / 2.5
Y6
Lift Cylinder 2 / 2.5
Y7
Glue Section Cup / 2.4
Y11
Clamp Glue / 2.4
Y5
Gripper Open / 2.7
Y13
Gripper Close / 2.8
Y14

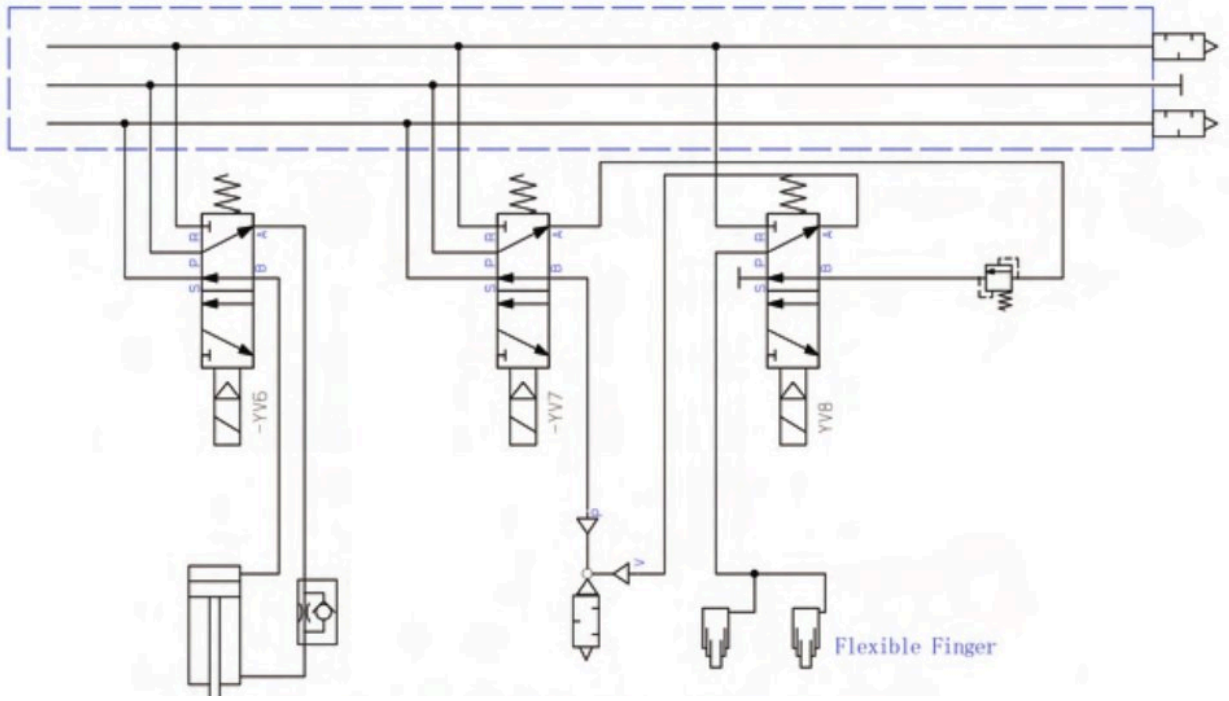

-X2
-W6
10*0.5/3M
0V
24V
X16
X17
X15
-B2
-B1
-B9
Module 1 Servo Home Origin
Module 2 Servo Home Origin


0V
24V
X3
X4
-B3
-B4
Safety Light Curtain 1
Safety Light Curtain 2


Y16
Yellow Lamp / 2.9
Y17
Green Lamp / 2.5
Y15
Red Lamp / 2.5
Y4
Buzzer / 2.6
24V
/11.10
Y16
Y17
Y15
Y4
24V
-X2
-W5
6*0.5/4M
Yellow
Green
Red
Three-Color Tower Light

Air diagram


-YV1
-YV2
-YV3
-YV4
-YV5
Lift 1
Lift 2
Glue Clamp Telescopic
Suction Cup
Glue Clamp


-YV6
-YV7
YV8
Flexible Finger