

THANK YOU FOR CHOOSING ROBOTIQ

This step-by-step guide will allow you to **install** and **use your AIRPick Vacuum Gripper** on CB Series Universal Robots.



1. WHAT IS SUPPLIED?

Standard upon delivery of **VAC-CB-UR-AIRPICK-KITX**

- Vacuum generator.....(VAC-GRP-AIRPICK)
- Gripper coupling.....(GRP-CPL-062)
- USB to RS485 Adapter.....(ACC-ADT-USB-RS485)
- High-flex device cable.....(CBL-COM-2065-10-HF)
- Suction Cup Option
 - KIT1**.....(1 SUCTION CUP)
 - KIT2**.....(2 SUCTION CUPS)
 - KIT4**.....(4 SUCTION CUPS)
- Required hardware



2. TOOLS YOU NEED



2mm
slotted screwdriver
(not included)



4 mm
Hex Key



3. GET THE LATEST

Visit: support.robotiq.com

DOWNLOADING THE **URCAP**

1. Select **brand > Universal Robots > Vacuum Grippers > Software > Gripper Software.**
2. Select **DOWNLOAD ZIP.**
3. Save the ZIP file **UCG-X.X.X** to a USB stick.

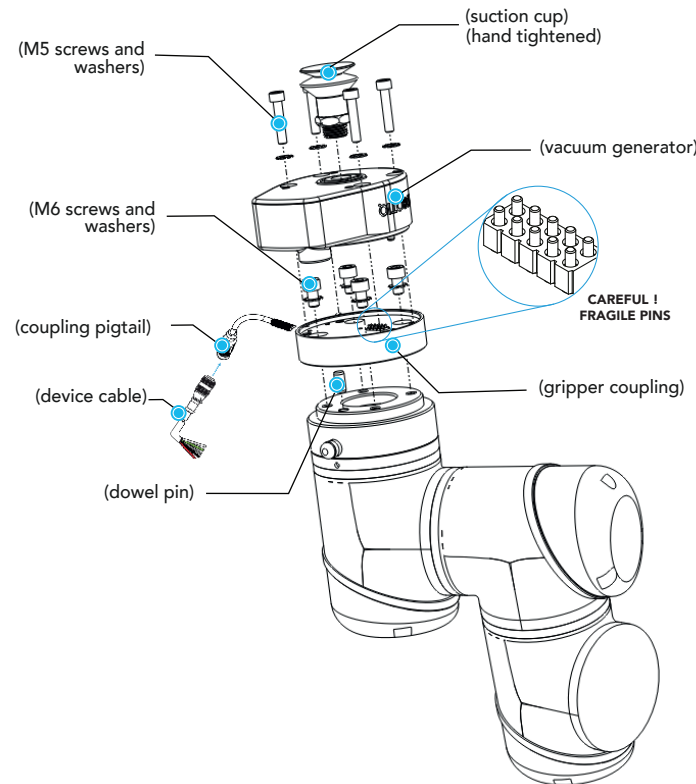


BEFORE OPERATING THE GRIPPER, PLEASE READ THE INSTRUCTION MANUAL.



4. MOUNTING

1. Mount the coupling on your robot arm. Align with the provided dowel pin.
2. Secure by inserting the M6 screws and tooth lock washers.
3. Mount the Vacuum Gripper on the coupling.
Align with the dowel pin.
4. Secure by inserting the M5 screws and tooth lock washers.
5. Plug the device cable into the coupling pigtail and attach the cable along the robot arm using a cable routing system.
6. To install the 2 or 4 suction cups kits for gripper, please refer to the **Connector Assembly Guide**. You can find in this guide details on assembling the Suction Cup System.



LEAVE ENOUGH EXCESS CABLE TO ALLOW FULL ROBOT MOVEMENT.

CONNECTING THE AIR SUPPLY

1. Insert the 8 mm flexible tube in the air supply port.
2. Once the tube inserted, make sure the safety clip is present to secure the tube.
3. Route the air tube along the robot arm using a cable routing system.



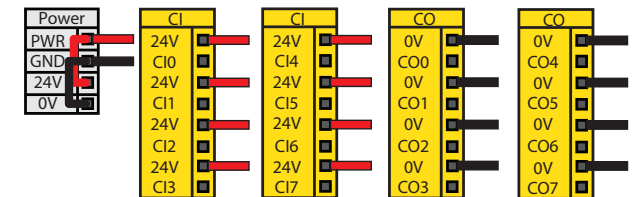
- Recommended air pressure = 7 bar [101.5 psi]
Maximum = 7 bar [101.5 psi]
- Dry and filtered air only;
Follow ISO 8573-1, class 3.4.3 Standard.
- Use of a local pressure regulator with a filter and air dryer is recommended.



5. WIRING

i The red (24V) and black (0V) wires of the device cable (CBL-COM-2065-10-HF) provide power to the Gripper.

1. Connect the red wire to a 24V pin.
2. Connect the black wire to a 0V pin.



3. Connect the communication wires in the USB converter (ACC-ADT-USB-RS485) as shown.



Pin	Signal Name	CBL-COM-2065-10-HF High-Flex Device Cable
1	485 + (A)	WHITE
2	485 - (B)	GREEN
3	485 GND	SHIELD

4. Connect the USB converter to the UR controller.



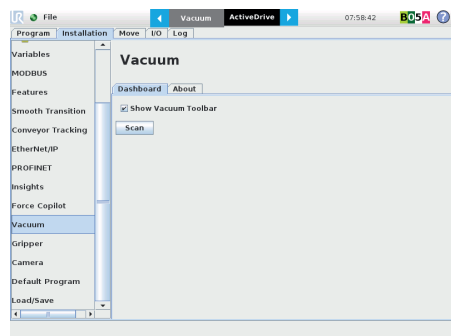
6. SOFTWARE INSTALLATION

1. Have a USB stick that contains the **.urcap** file (**STEP 3**).
2. Insert the USB stick in the robot teach pendant.
3. Tap **Setup Robot** and then **URCaps**.
4. Tap the **+** sign.
5. Open **UCG-X.X.X.urcap**.
6. Tap the **Restart** button to activate the URCap.
7. The **Vacuum** toolbar button will display a short time after the installation of the software is completed.

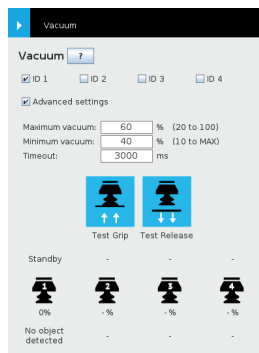


7. DETECTING THE GRIPPER

1. Initialize the robot.
2. Tap the **Installation** tab in the header.
3. Select **Vacuum** in the left navigation pane.
4. Tap the **Scan** button to locate any connected gripper.



5. Tap the **Vacuum** tab on the top of the screen to expand the Vacuum Toolbar. (**Show Vacuum Toolbar** must be selected).
6. The Vacuum Toolbar allows you to test the vacuum gripper.



Vacuum Gripper Toolbar



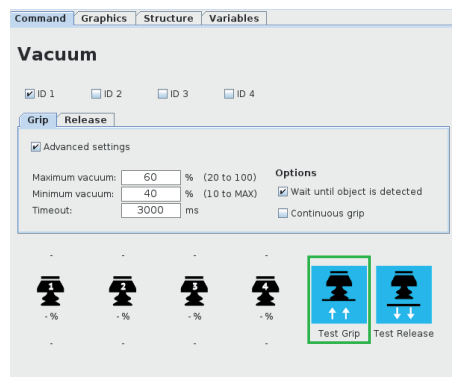
8. PROGRAMMING THE GRIPPER

VACUUM NODE

1. Tap the **Program** tab at the top of the screen.
2. Tap the **Structure** tab.
3. Tap the **URCaps** tab and select **Vacuum**.
4. Tap the **Command** tab to edit the action of your gripper.

TO GRIP A PART

1. In the **Command** tab, select the **Grip** tab.
2. You can specify a range for the maximum and minimum vacuum levels (%), and specify a timeout (ms) by checking the **Advanced settings** box.
3. To establish nominal values for your application, tap the **Test Grip** button.



Vacuum command

TO RELEASE A PART

1. In the **Command** tab, select the **Release** tab.
2. If the **Advanced settings** box is checked, enter a **Shut off distance** (cm).
3. To establish nominal values for your application, tap the **Test Release** button.



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Vacuum Gripper

AIR PICK

QUICK START GUIDE

For installation on
CB Series
Universal Robots



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