

THANK YOU FOR CHOOSING ROBOTIQ

This step-by-step guide will allow you to **install** and **use** your **2-Finger Gripper** on Universal Robots with a CB3 controller.



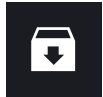
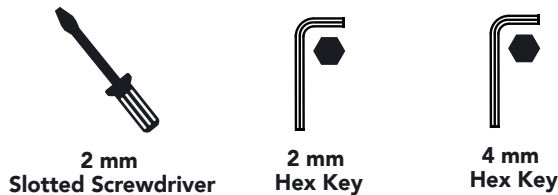
1. WHAT IS SUPPLIED?

Standard upon delivery of a Universal Robots kit:

- 2-Finger Adaptive Gripper (AGC-GRP-2F85 or -2F140)
- Gripper Coupling(GRP-CPL-062)
- Gripper Fingertips (AGC-TIP-204-002)
- High-Flex Device Cable (CBL-COM-2065-10-HF)
- USB to RS485 Adapter (ACC-ADT-USB-RS485)
- Parallel Locking Pins.....(AGC-PARA-KIT)
- USB Stick
- Necessary Hardware



2. TOOLS YOU NEED



3. GET THE LATEST

Visit: support.robotiq.com

- Get the up-to-date instruction manual (PDF or web browser).
- Get the corresponding **Robotiq_Grippers-X.X.X.urcap**.
- Download the .urcap file on a USB stick.

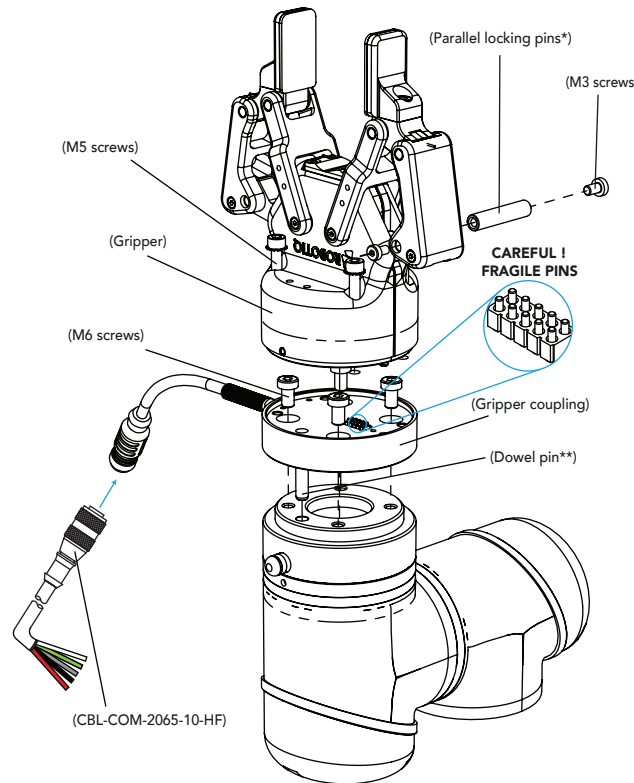


BEFORE OPERATING THE GRIPPER, PLEASE READ INSTRUCTION MANUAL.



4. MOUNTING

- Mount the coupling (GRP-CPL-062) on your robot arm. Align with the provided dowel pin*.
- Fix using the provided M6 screws (use of threadlocker is recommended).
- Mount the Gripper (GRIPPER-2F85 or -2F140) on the coupling. Align with the dowel pin*.
- Fix using the provided M5 screws and lock washers.
- Plug the device cable (CBL-COM-2065-10-HF) into the Gripper's pigtail and fix the cable along the robot arm using a cable routing system.



*Parallel locking pins can be installed to perform exclusively parallel grasps with the Gripper. See instruction manual for more details.

**The dowel pin is meant to have a tight fit on the robot side and a slip fit on the effector side of the assembly.

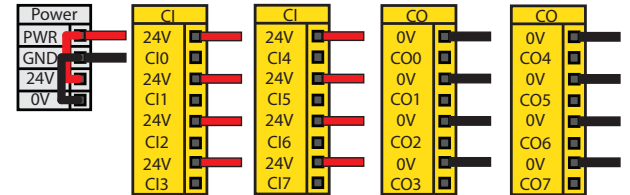


LEAVE ENOUGH EXCESS CABLE TO ALLOW FULL ROBOT MOVEMENT.

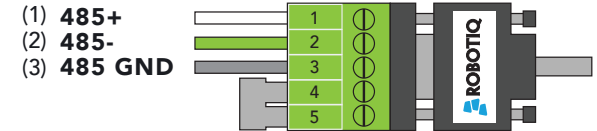


5. WIRING

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



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



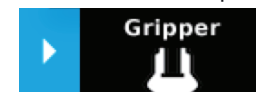
| Pin | Signal Name | CBL-COM-2065-10-HF High-Flex Device Cable |
|-----|-------------|---|
| 1 | 485 + (A) | WHITE |
| 2 | 485 - (B) | GREEN |
| 3 | 485 GND | SHIELD |

- Connect the USB converter to the UR controller.



6. SOFTWARE INSTALLATION

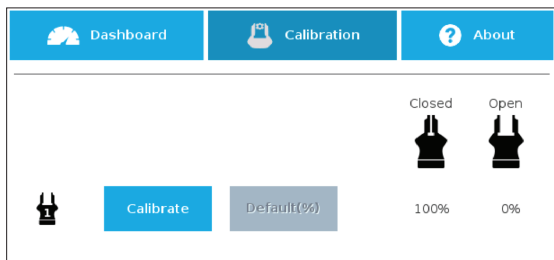
- Have a USB stick that contains the .urcap file (step 3).
- Insert the USB stick in the robot's teach pendant.
- Tap **Setup Robot** and then **URCaps Setup**.
- Tap the + sign.
- Open **Robotiq_Grippers-X.X.X.urcap**.
- Tap the **Restart** button to activate the URCap.
- The Gripper toolbar button will display a short time after the installation of the software is completed.





7. HOW TO CALIBRATE THE GRIPPER

- From a robot program, go to the **Installation** tab and select **Gripper** in the left pane.
- Tap the **Calibration** tab.
- Tap the **Calibrate** button next to the Gripper icon to start the Calibration wizard.

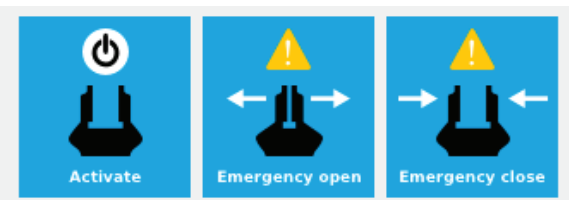


- The wizard prompts the user to fully **close** the Gripper, regardless of the type of fingers/fingertips used.
 - Measure the distance between the fingers/fingertips and enter the measurement in the appropriate box.
 - Tap the **Continue** button.
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- The user is then asked to fully **open** the Gripper.
 - Measure the distance between the fingers/fingertips and enter the measurement in the appropriate box.
 - Tap the **Continue** button to complete the Calibration wizard.

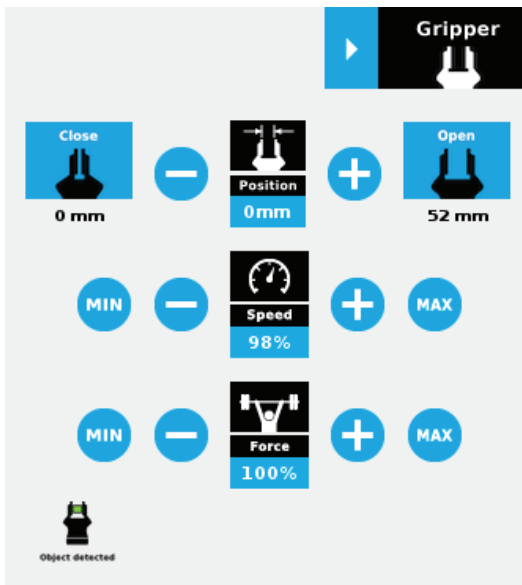


8. TEST AND JOG THE GRIPPER

- Tap the **Gripper** button to expand the Gripper toolbar.
- Tap **Activate** to initialize the Gripper and access the toolbar.



- The Gripper toolbar allows you to jog and test the Gripper. For more information, refer to the instruction manual.



- Depending on the PolyScope settings used, the Gripper position measurements can either display in metric or imperial units.



9. USE NODES TO PROGRAM WITH THE GRIPPER

Gripper Node

- From your robot program, go to the **Structure** tab.
- Go to the **URCaps** tab.
- Tap the **Gripper** button.
- Go to the **Command** tab to edit your Gripper's action.

Grip Check Node

- From your robot program, go to the **Structure** tab.
- Go to the **URCaps** tab.
- Tap the **Grip Check** button.
- Go to the **Command** tab to edit the node.
- Select a condition (If object is **detected** vs. If object is **not detected**).
- If applicable, enter the object dimension for validation.

New product has a 1-year warranty from the above date.
Refer to your product instruction manual for details.

support.robotiq.com

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T: 1.418.380.2788 option 3

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V2.3



2F-85 & 2F-140 ADAPTIVE GRIPPERS

QUICK START GUIDE

For installation on
CB-Series
Universal Robots

