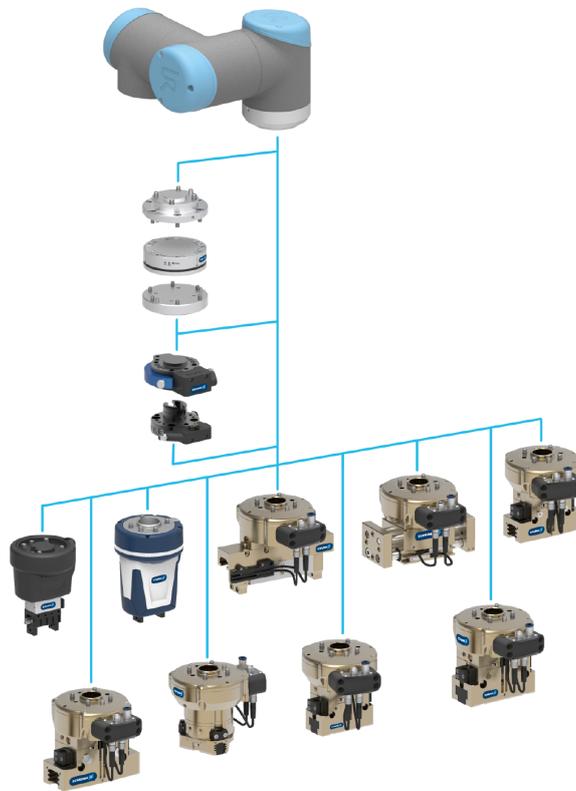


Software Manual

SCHUNK Software module for URCap

End-of-Arm Modular System for Universal Robots



Imprint

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Technical changes:

We reserve the right to make alterations for the purpose of technical improvement.

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Best regards,

Your SCHUNK team

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Table of contents

1	General.....	4
1.1	About this manual	4
1.2	Applicable documents	4
2	Functional description of software.....	5
3	Install software component	6
4	Configure the software component.....	8
5	Performing the manual gripping function.....	10
6	Inserting the gripping function into the program code	11
7	Inserting sensor monitoring into the program code	12

1 General

1.1 About this manual

This manual contains information on the "URCap" software.

The software is used to easily integrate and control SCHUNK grippers in universal robot applications:

Illustrations in this manual are provided for basic understanding and may differ from the actual product design.

In addition to these instructions, the documents listed under [Applicable documents](#) [▶ 4] are applicable.

1.2 Applicable documents

- Assembly and operating manual for the product *

The documents marked with an asterisk (*) can be downloaded on our homepage schunk.com

2 Functional description of software

The "Closes gripper" and "Opens gripper" functions and their configuration will be prepared. The sensor system is not evaluated with this software.

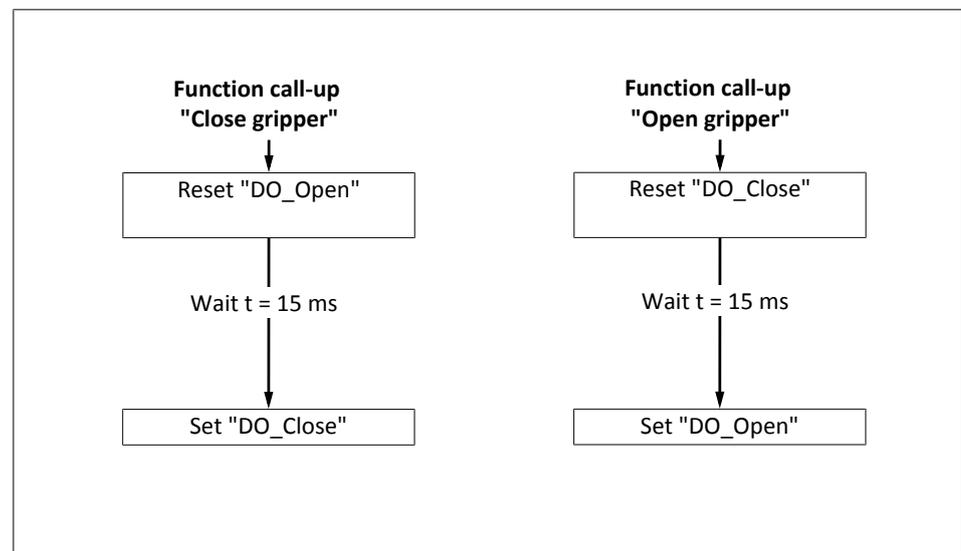
Function "Closes gripper"

When closing, the digital output "DO_Open" is reset. After 15 ms the digital output "DO_Close" is set. After the set waiting time has elapsed, the function is executed completely.

Function "Opens gripper"

When opening, the digital output "DO_Close" is reset. After 15 ms the digital output "DO_Open" is set. After the set waiting time has elapsed, the function is executed completely.

Flow chart



Flow chart for function "Closes gripper" / "Opens gripper"

3 Install software component

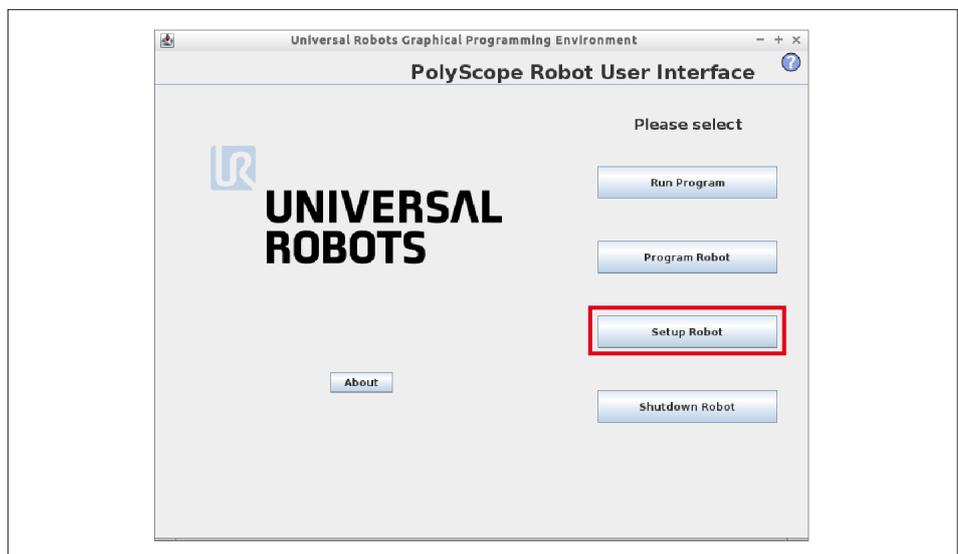
NOTE

To install the software, use the enclosed USB stick.

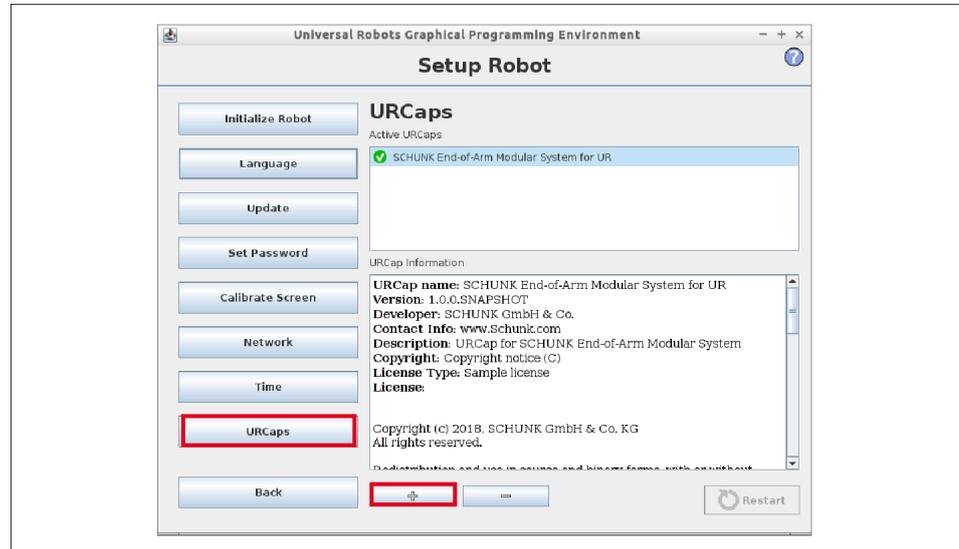
- Connect the USB stick to the control unit. The USB interface is located at the back of the control panel.



- Start the control unit and select the "Adjust robot" button.



- Press the "URCaps" button.
 - ✓ The Explorer window on the right displays the software component contained on the USB stick.
- Select "SCHUNK End-of-Arm Modular System for UR" and add with "+".
- Press the "Restart" button, to complete the installation.

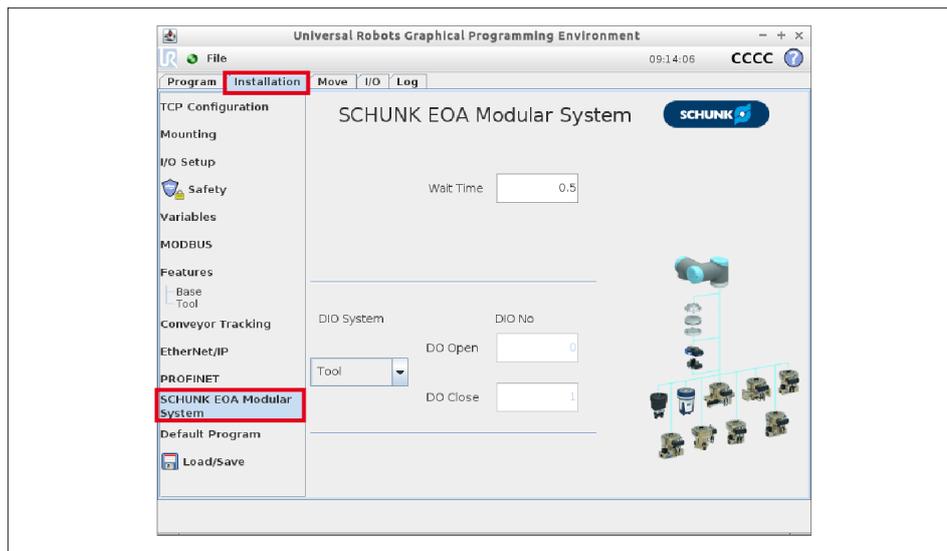


4 Configure the software component

The following settings may be adjusted:

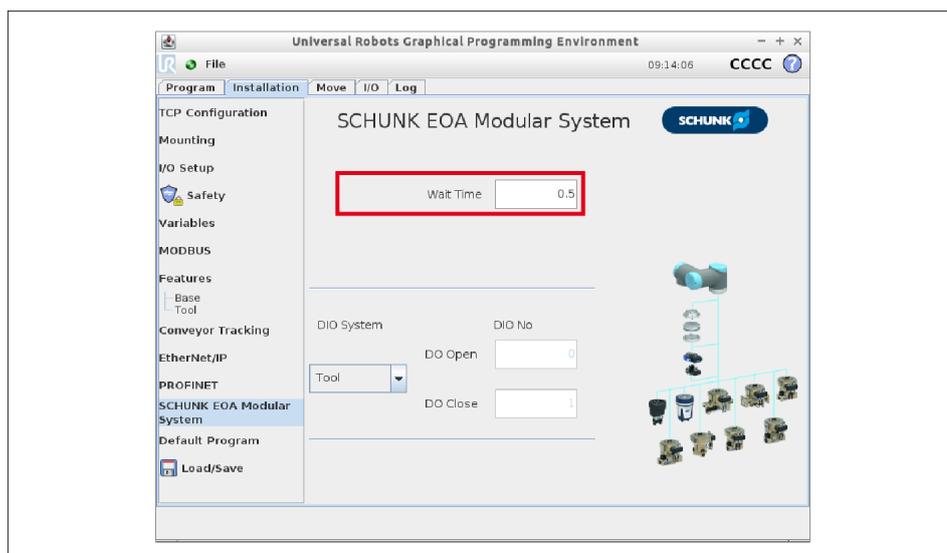
- Wait time between commands
- Addresses for the digital outputs
- Tool output voltage (optional)

➤ In the "Installation" tab, press the "SCHUNK EOA Modular system" button.

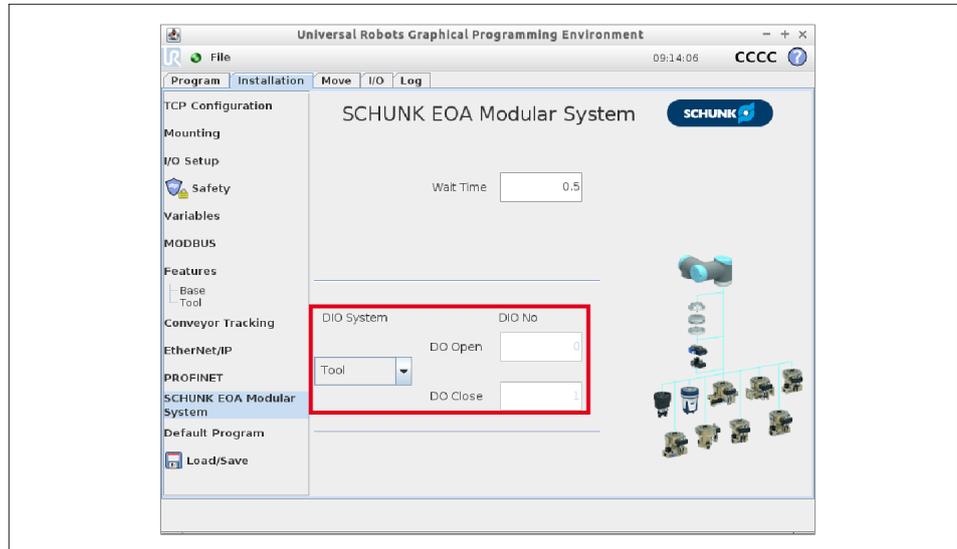


➤ Enter wait time.

Note: The "Wait Time" variable indicates the time in seconds that the robot waits after executing the commands "Opens gripper" or "Closes gripper" until a new command may be executed.

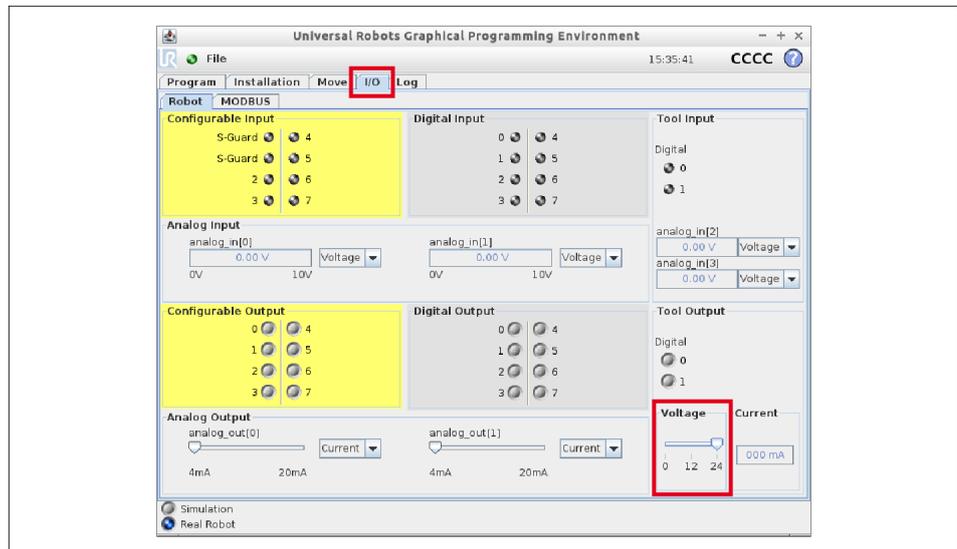


- In the drop-down menu, select the "Tool" terminal for URID or the "Controller" terminal for UREK.
 - ✓ *When selecting "Tool":* The corresponding digital output is automatically selected.
- *When selecting "Controller":* In the input fields "DO Open" and "DO Close", enter the digital outputs to which the gripper is connected on the control side.



Adjusting the tool output voltage (for the variant with an electrical tool interface (URID))

- Select the "E/A" tab.
- Set the voltage of the tool output to 24V.

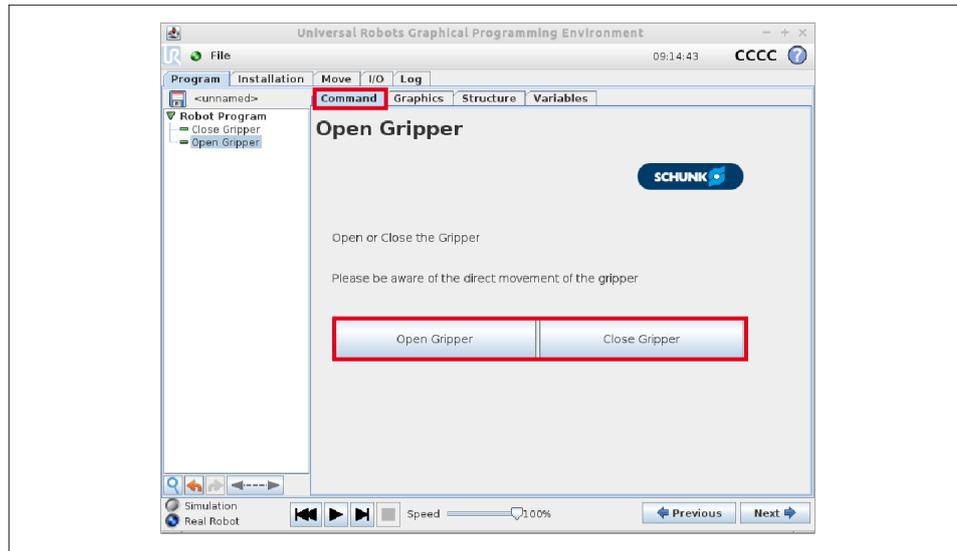


5 Performing the manual gripping function

For direct control of the gripper, one of the two functions "Opens gripper" or "Closes gripper" may be selected.

- Select the "Program – Command" tab.
- Select "Open gripper" or "Close gripper" button.
- ✓ The selected function will be performed.

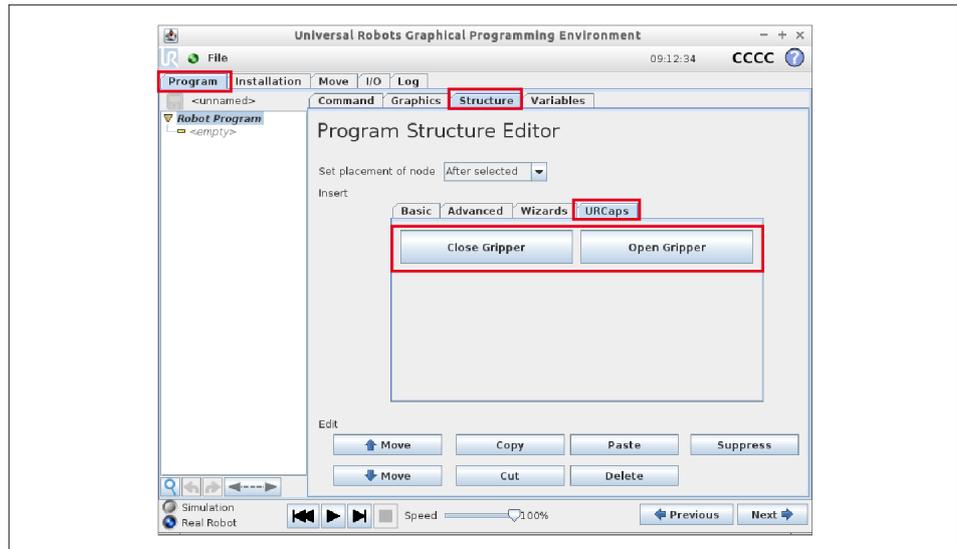
WARNING! Do not handle or grip moving parts.



6 Inserting the gripping function into the program code

The functions "Closes gripper" and "Opens gripper" may be inserted into the program code.

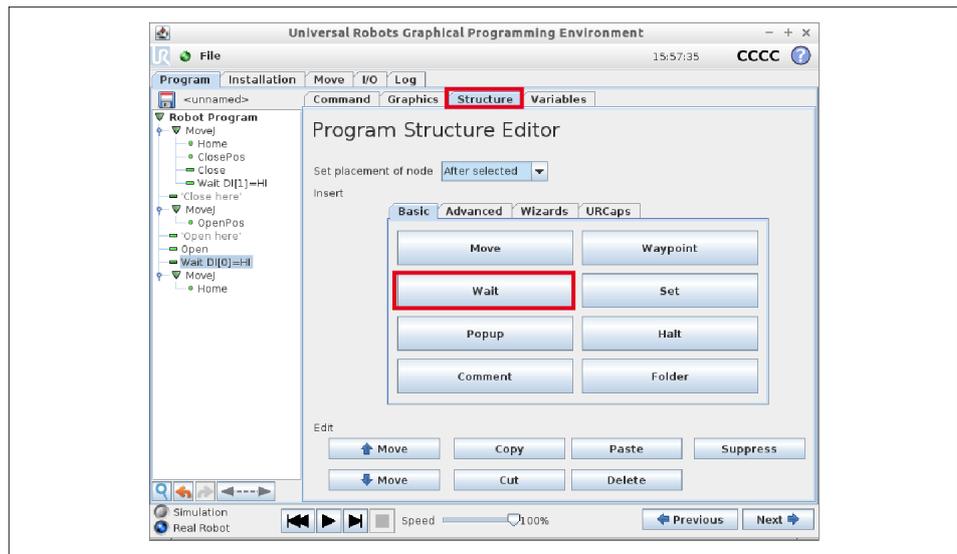
- Select the "Program – Structure – URCaps" tab.
- Select the desired position in the robot program.
- Select "Close gripper" or "Open gripper" button.
- Press the "Insert" button.
- ✓ The selected function will be inserted into the program code.



7 Inserting sensor monitoring into the program code

The sensors may be monitored using a "wait" command.

- Select the "Program – Structure – Basic " tab.
- Select the desired position after a gripping command in the robot program.
- Press the "Wait" and "Insert" buttons.
- ✓ The selected "Waiting" function will be inserted into the program code and still needs to be configured.



Configuring

- Select the "Command" tab.
- Select the previously inserted "Wait" function in the robot program.
- Activate the "Wait for digital input" button.
- In the drop-down menu, select the address of the digital input and set the desired status to "High".

