



Software manual

Co-act EGP-C in URID/UREK variants

SCHUNK software component for UR Cap

Translation of original software
manual

Hand in hand for tomorrow

Imprint

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Technical changes:

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

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Dear Customer,

Thank you for trusting our products and our family-owned company, the leading technology supplier of robots and production machines.

Our team is always available to answer any questions on this product and other solutions. Ask us questions and challenge us. We will find a solution!

Best regards,

Your SCHUNK team

Customer Management

Tel. +49-7133-103-2503

Fax +49-7133-103-2189

cmg@de.schunk.com



Please read the operating manual in full and keep it close to the product.

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1 General

1.1 About this manual

This manual contains information on the "URCap" software.

The software is used to easily integrate and control the following products in universal robot applications:

- Co-act EGP-C-UREK
- Co-act EGP-C-URID

NOTE: The illustrations in this manual are intended to provide a basic understanding and may deviate from the actual version.

In addition to these instructions, the documents listed under ► 1.2 [4] are applicable.

1.2 Applicable documents

- Assembly and operating manual for the product *

The documents labeled with an asterisk (*) can be downloaded from [schunk.com](https://www.schunk.com).

2 Description of software functions

The "Closes gripper" and "Opens gripper" functions and their configuration will be prepared. For the "UREK" variant, the light band can be controlled. 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"

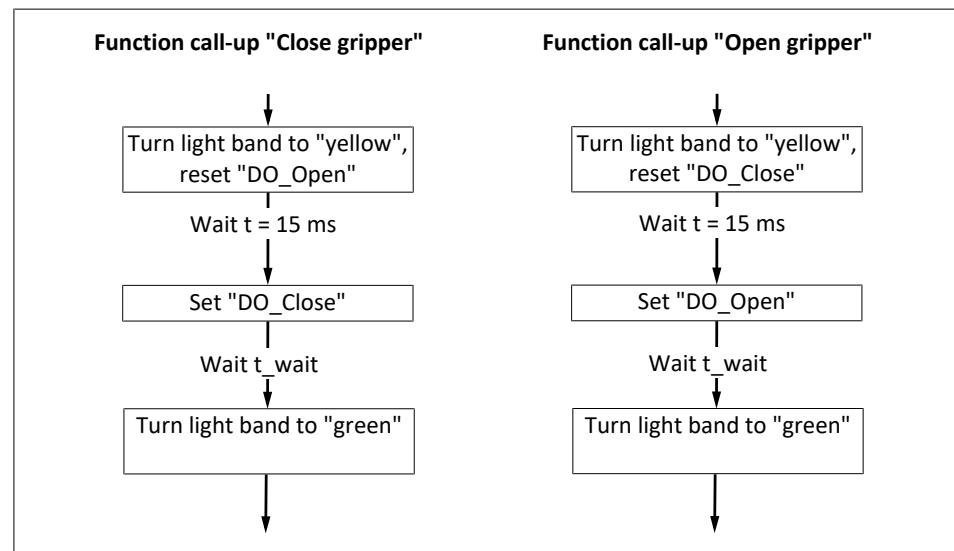
When opening, the digital output "DO_Close" is reset. After 15 ms the digital output "DO_Open" is set. After the set waiting time has elapsed, the function is executed completely.

"Light band" function

In the variant with external wiring (UREK), a light band is installed. The light band is controlled based on the current product status. During the execution of a motion command and during the waiting time, the light band will illuminate in yellow. After completing the respective function, it will turn green again.

Note: The color change is achieved by switching two adjustable digital outputs.

Flow chart



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

3 Install software component

CAUTION

Possible damage to product!

The product or the robot may get damaged if electrical cables are connected or disconnected during operation.

- Connect or disconnect electrical connections only when the device is switched off.

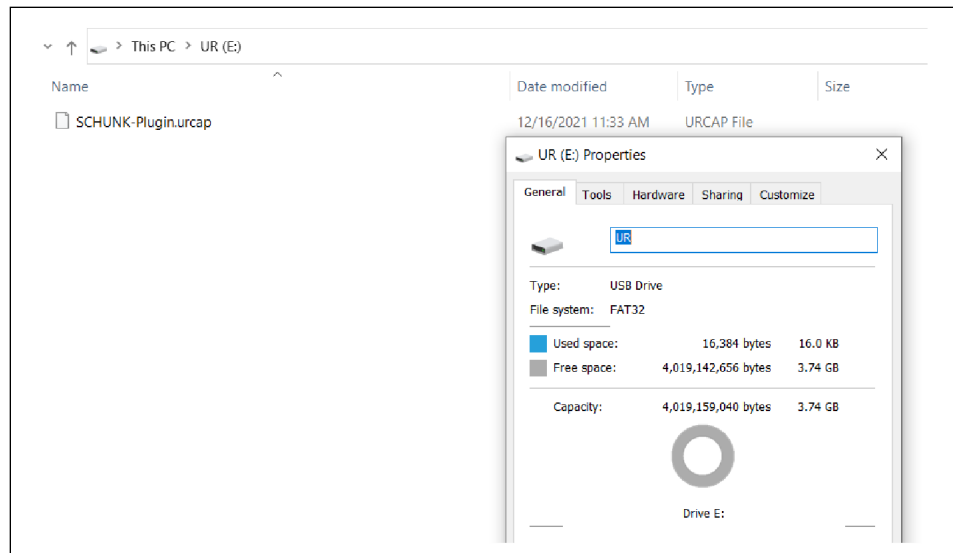
NOTE

To install the software, SCHUNK recommends using a USB stick.

Prepare the USB stick

The USB stick must meet the following requirements:

- Formatted in FAT32 format
- Designation of the removable drive: "UR"



Designation of the USB stick

Installing the software module

1. Download the current version of the software module from [schunk.com/downloads-software](https://www.schunk.com/downloads-software) and copy it to the USB stick.

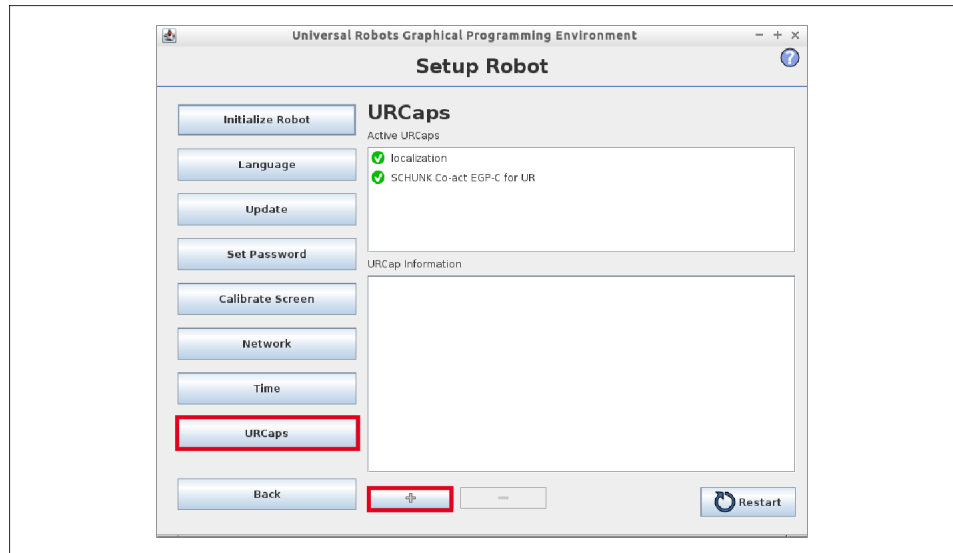
2. Connect the USB stick to the control unit. The USB interface is located at the back of the control panel.



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



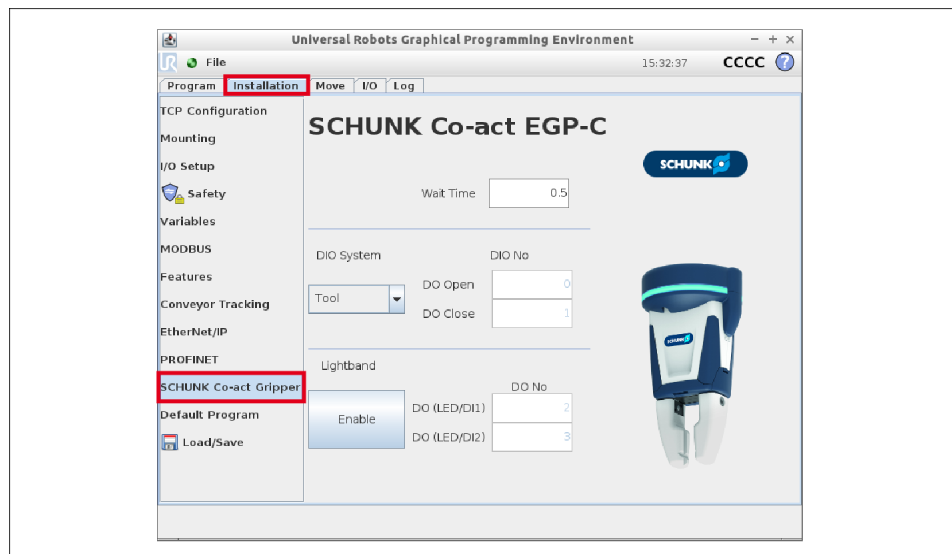
4. Press the "URCaps" button.
 - ⇒ The Explorer window on the right displays the software component contained on the USB stick.
5. Select the "Schunk Co-act EPG-C for UR" software module and add it using "+".
6. Select the "Restart" button to complete the installation.



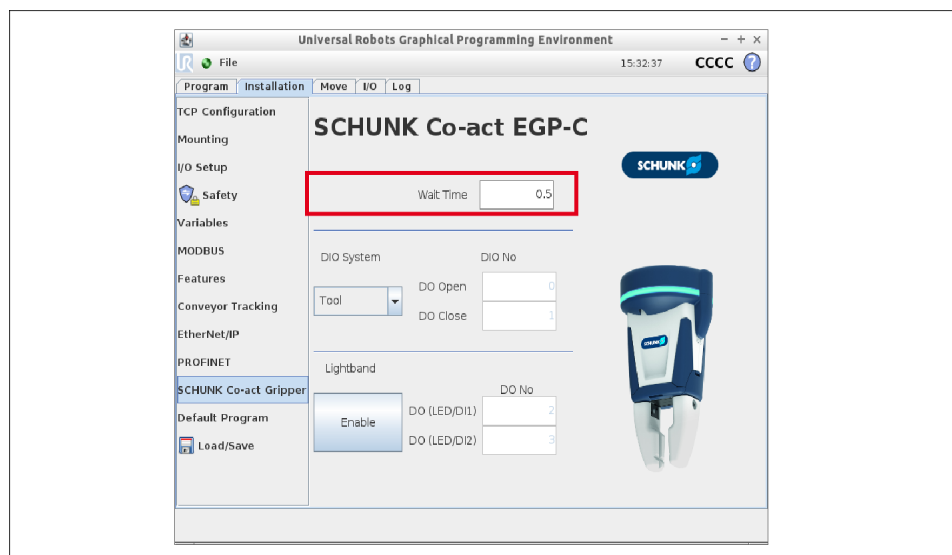
4 Configure the software component

The following settings may be adjusted:

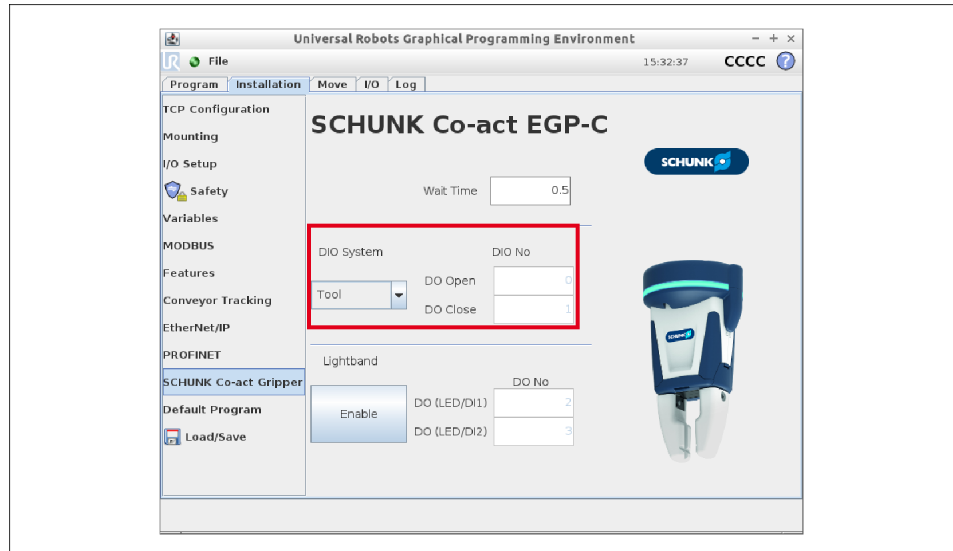
- Wait time between commands
 - Addresses for the digital outputs
 - Light band (optional)
 - Tool output voltage (optional)
- In the "Installation" tab, select the "SCHUNK Co-act Gripper" button.



- 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.



1. 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.
2. *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.



Configuring the light band (for variant with external cabling (UREK))

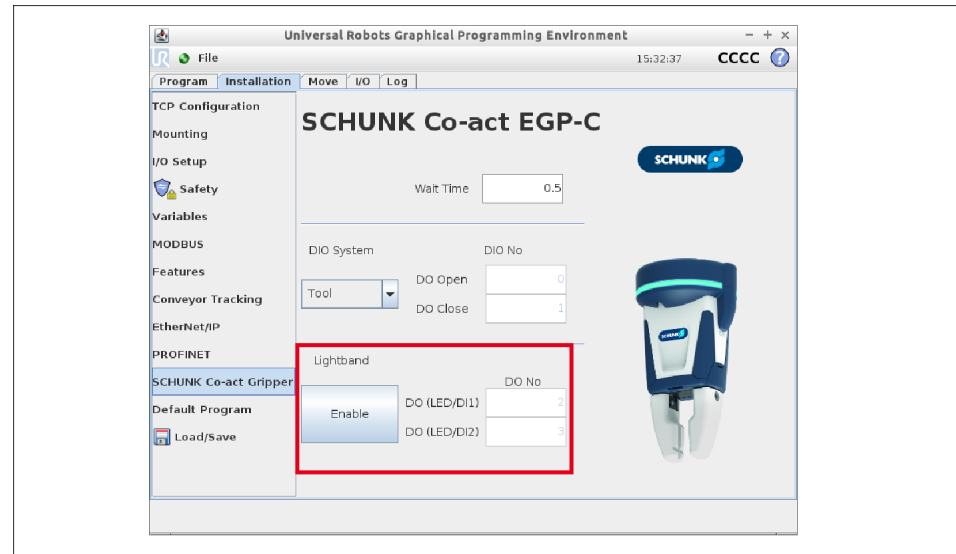
NOTE

- For the variant with an electrical tool interface (URID), **no** light band is available.
- In the variant with external wiring (UREK), a light band is installed. If the light band is connected, it can be switched on and configured. Connection is only possible at the robot's control unit.

1. Press the "Activate" button to use the light band.
 - ⇒ Entry fields "DO (LED/DI1)" and "DO (LED/DI2)" are active.
2. Enter the address for the digital outputs in the "DO (LED/DI1)" and "DO (LED/DI2)" input fields.

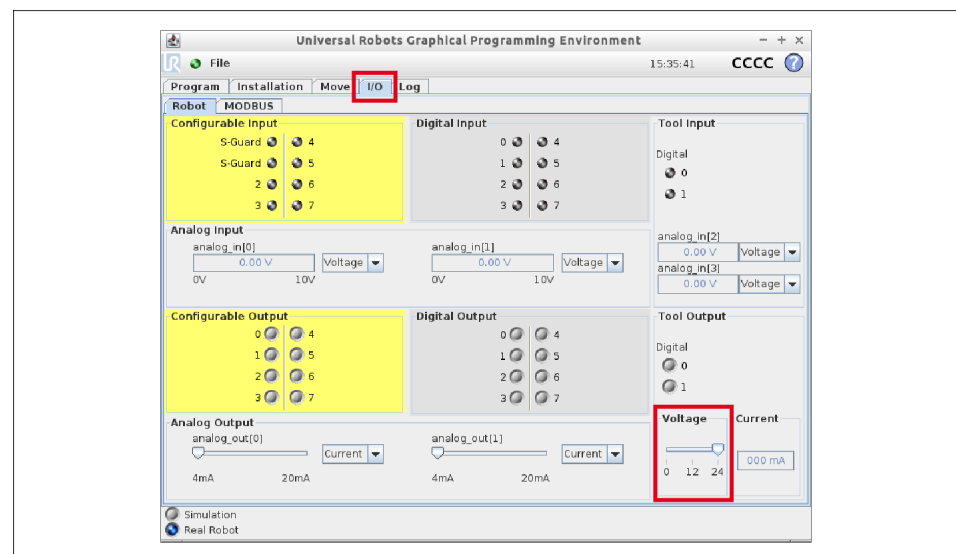
NOTE

If the light band is deactivated, the digital outputs are not used in the program.



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

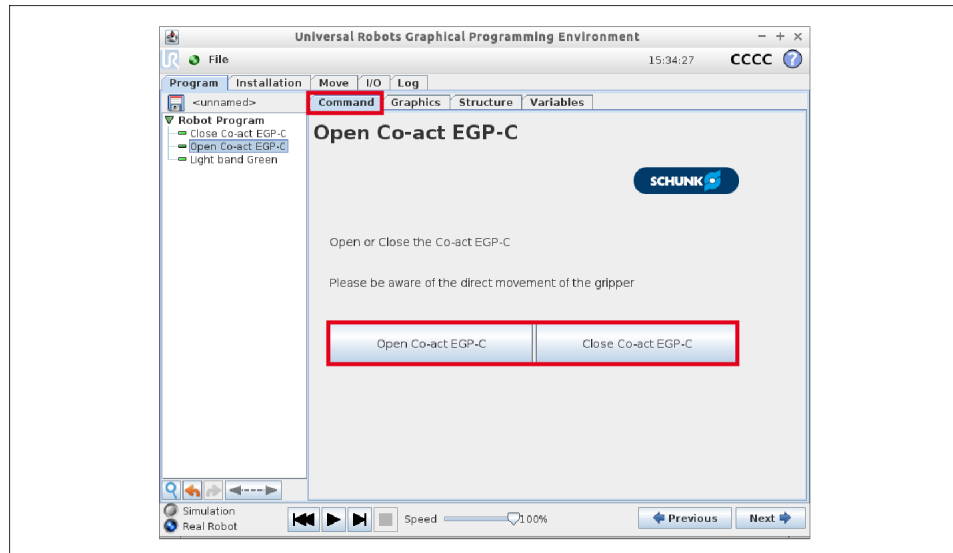
1. Select the "E/A" tab.
2. Set the voltage of the tool output to 24V.



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.

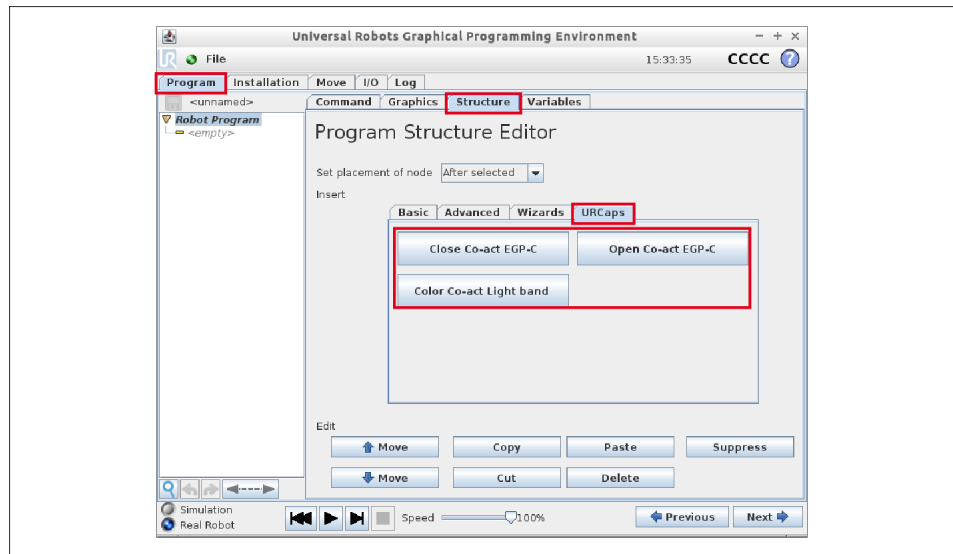
1. Select the "Program – Command" tab.
2. Press the "Open Co-act EGP" or "Close Co-act EGP" button.
⇒ The selected function will be performed. **WARNING Do not handle or interfere with moving parts.**



6 Inserting the gripping function into the program code

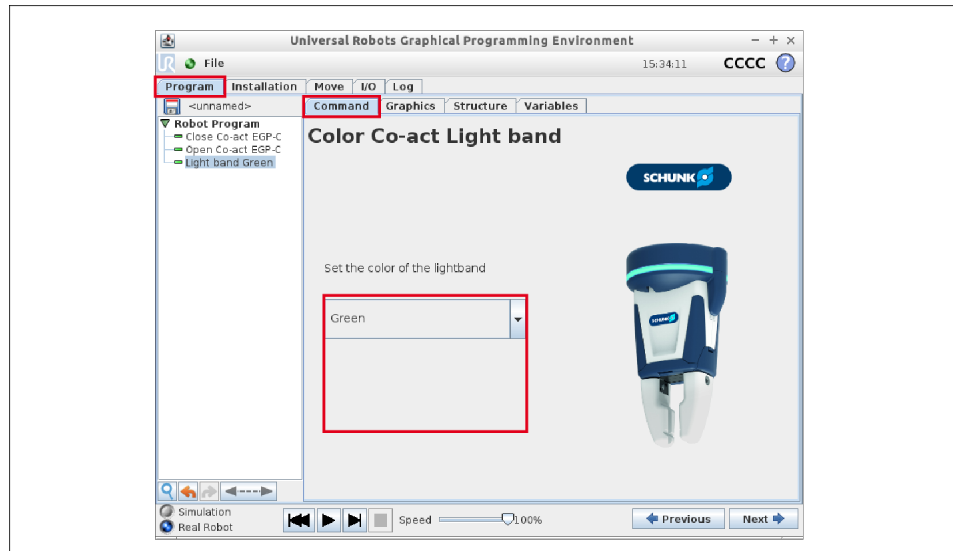
The functions "Opens gripper" and "Closes gripper" may be inserted into the program code.

1. Select the "Program – Structure – URCaps" tab.
 2. Select the desired position in the robot program.
 3. Press the "Open Co-act gripper" or "Close Co-act gripper" button.
 4. Press the "Insert" button.
- ⇒ The selected function will be inserted into the program code.



7 Inserting the light band into the program code

The function "Light band" may be inserted into the program code.

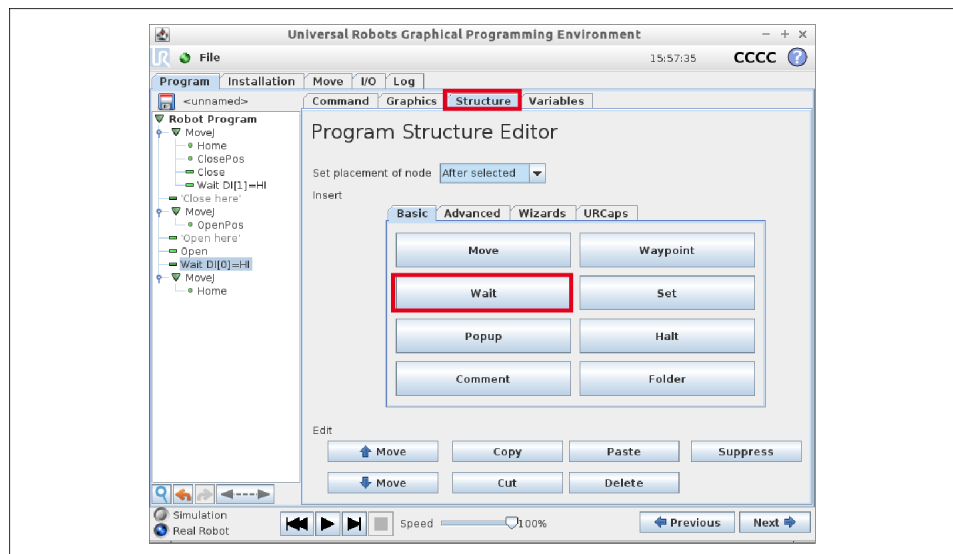


1. Select the "Program – Command".
 2. Select the desired position in the robot program.
 3. In the drop-down menu, select the colour of the light band or the "Activate" or "Deactivate" function.
"Deactivate" switches off the light band and the colour change of the gripper functions.
"Activate" switches the light band to green and switches on the colour change of the gripper functions.
- ⇒ The function "Light band" will be inserted into the program code.

8 Inserting sensor monitoring into the program code

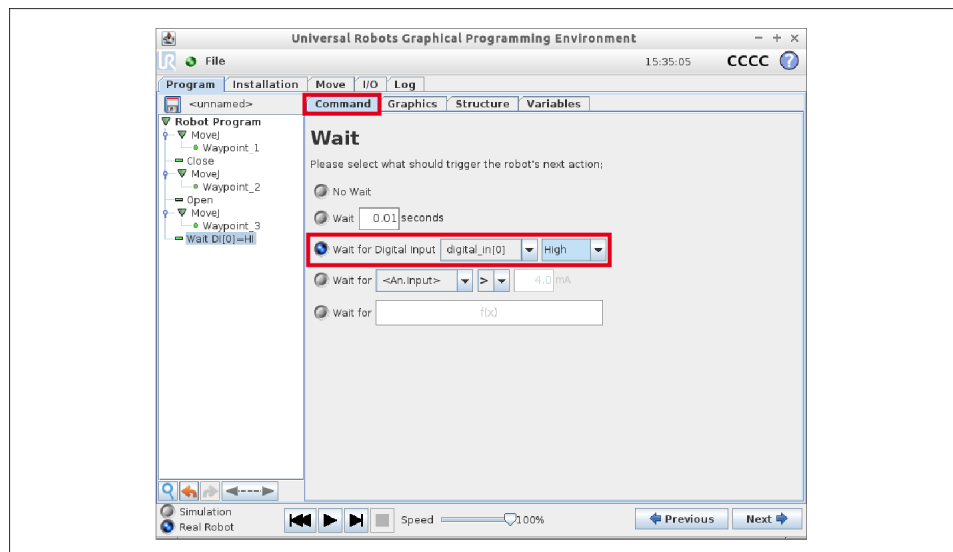
The sensors may be monitored using a "wait" command.

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



Configuring

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





SCHUNK SE & Co. KG
Toolholding and workholding | Gripping Technology |
Automation technology

Bahnhofstr. 106 - 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2399
info@de.schunk.com
schunk.com

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