

Auto Connector 063

Initial assembly

- Quick Start Guide

UR Cap Set-up

- Installation
- Start-up



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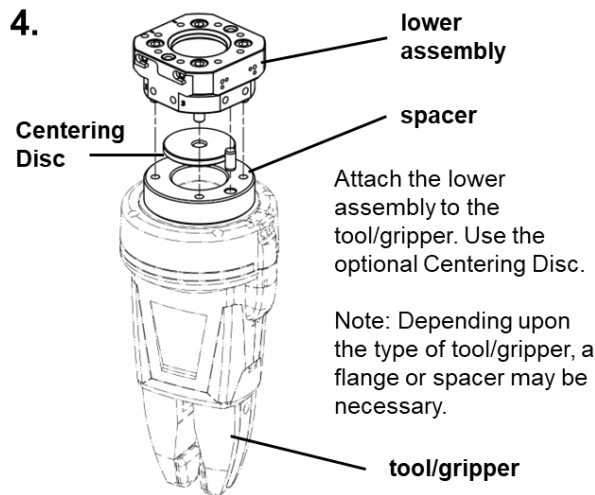
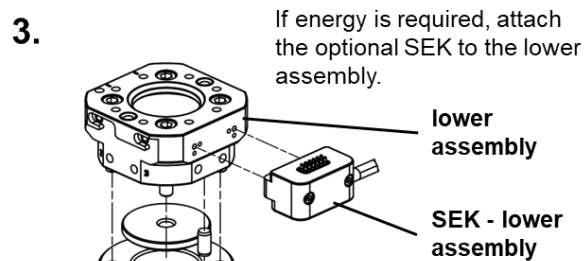
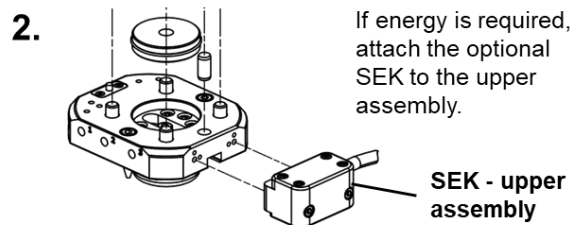
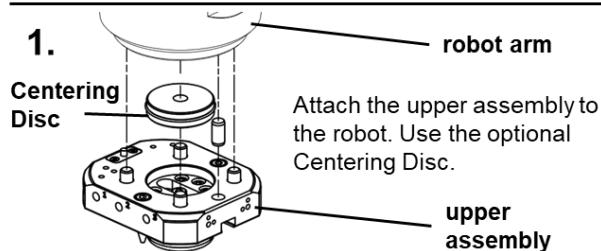


Initial assembly - Quick Start Guide

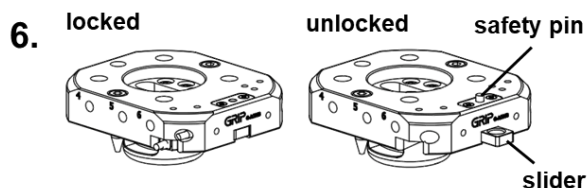
GRIP



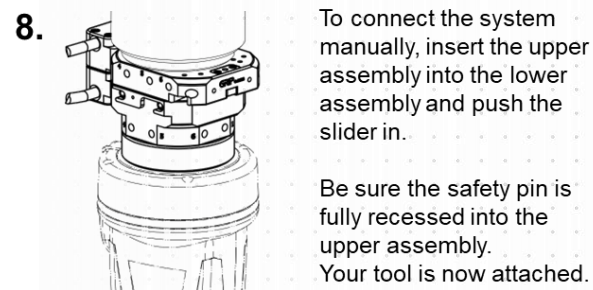
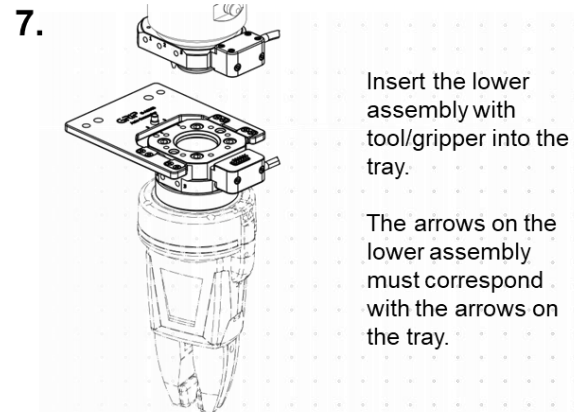
For maximum safety, always read the entire operating manual!



5. Attach necessary electrical connections and pneumatic hoses to the respective assemblies.



Ensure the Connector is unlocked.
If not, push out the safety pin from underneath and pull out the slider.



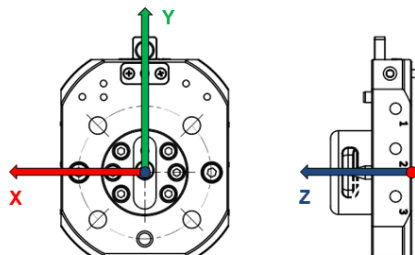
ALWAYS hold the lower assembly with tool/gripper when opening the connector. Not doing so will cause the lower assembly with tool/gripper to fall.



For maximum safety, always read the entire operating manual!

Payload specifications

After mounting the upper assembly, the payload specifications must be adjusted.



Weight of the upper assembly:

Mass = 0,24 kg

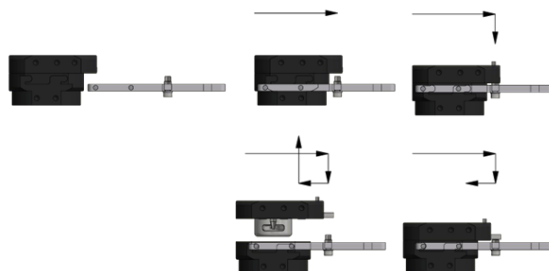
Center of gravity:

CX = 0,25 mm
CY = 4,87 mm
CZ = 12,31 mm

Note that the specified values change due to the connection of energy feed-throughs.

Programming

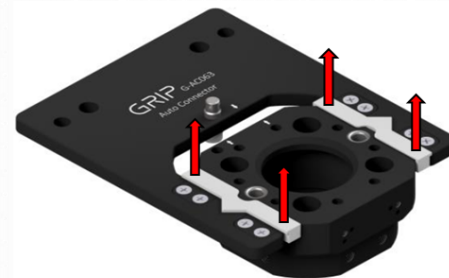
A defined sequence of movements must be programmed for locking and unlocking. The required sequence of points is stored in the mounting and operating instructions.



To teach the reference position, please use the templates supplied.



Before programming, the templates must be removed again. The programming of the locking and unlocking path is done without templates!



If the templates are stuck, gently shake the bottom assembly or carefully pry them out with a flat screwdriver.

More detailed information can be found in our assembly and operating manual as well as in our technical data sheets.

www.grip-gmbh.com

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UR Cap Set-up

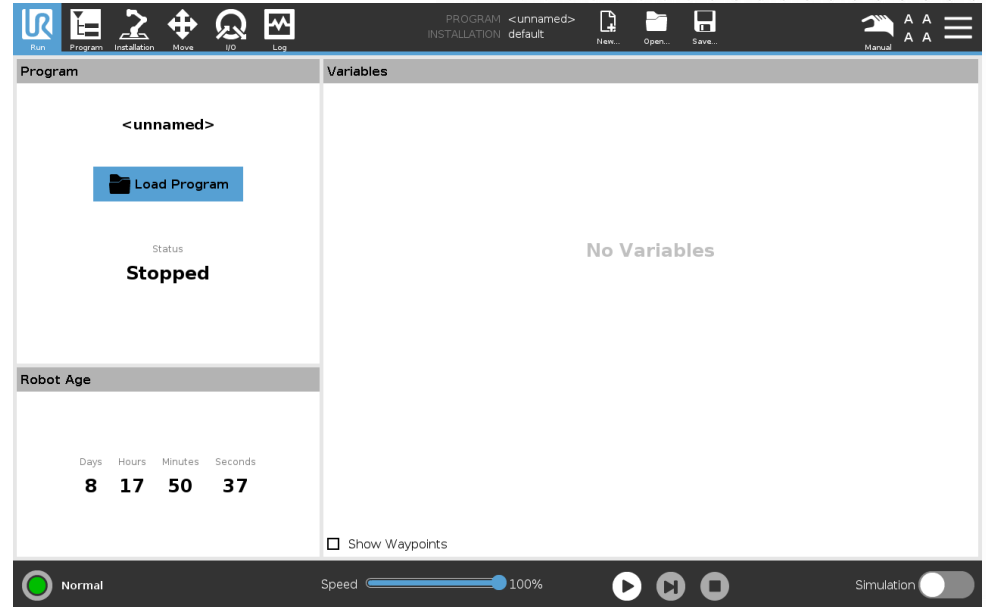
- **Installation**

- Start-up



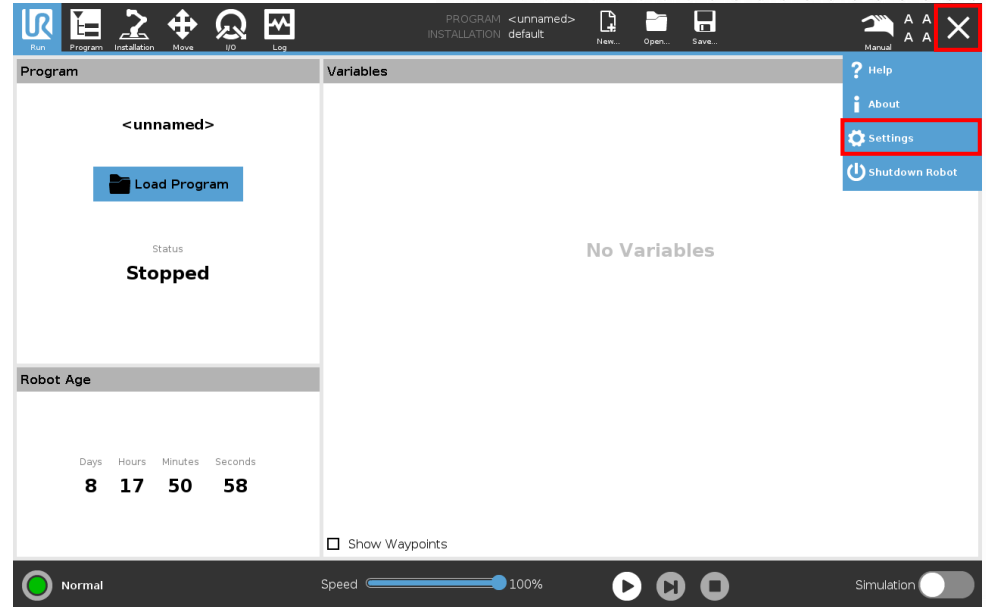
Installation (1/4)

- If the URCap "GRIP Auto Connector" is not installed, proceed as follows:
 - Insert the USB stick with the most recent version of the URCap.
 - The port is located on the back of the UR teach tablet



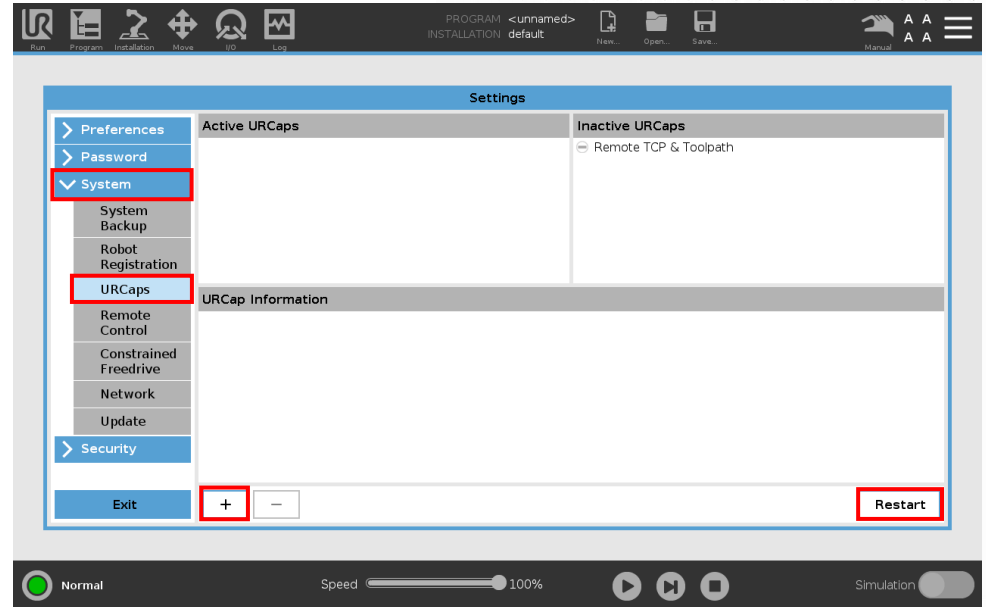
Installation (2/4)

- Open the menu in the upper right corner and select "Settings"



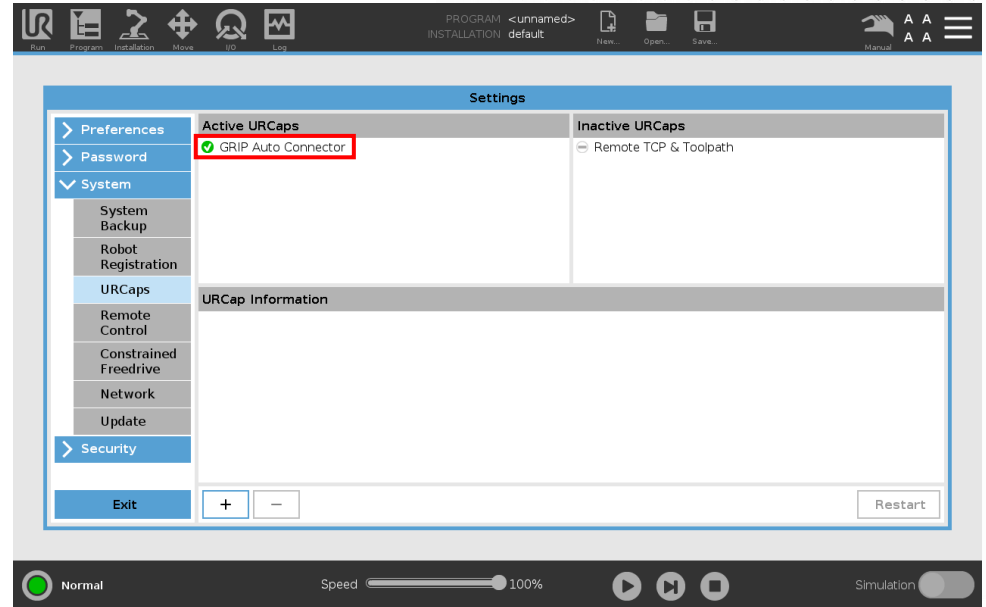
Installation (3/4)

- Under the "System" tab in the left menu, select "URCaps".
- Select "+" to add new caps
- Select the URCap "GRIP Auto Connector" and press the "Open" button
- A "Restart" is required to complete the installation



Installation (4/4)

- After a successful installation the cap "GRIP Auto Connector" should be activated in the active URCaps field



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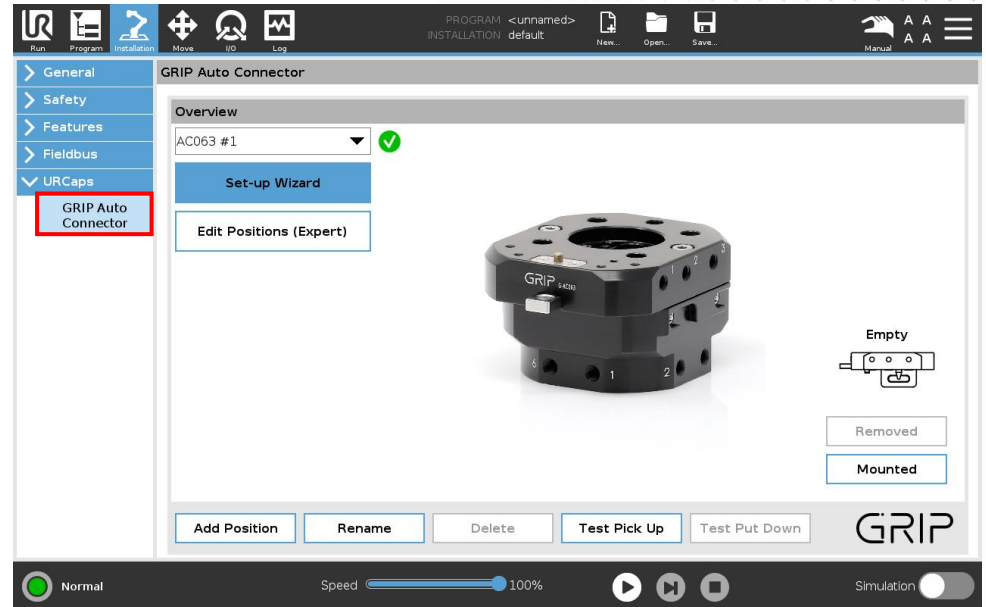
UR Cap Set-up

- Installation
- **Start-up**



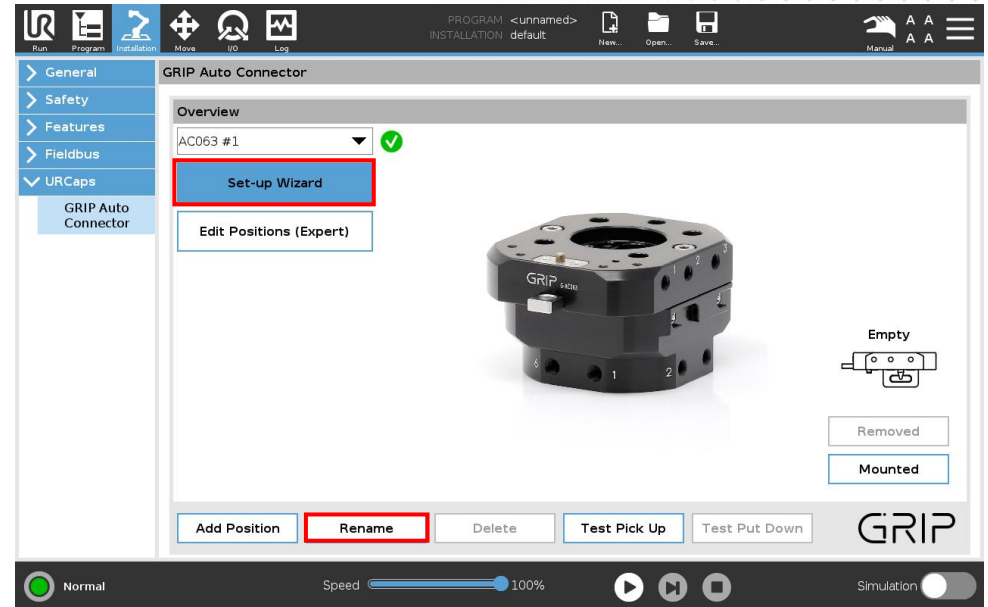
Cap title menu

- In the "Installation" menu under "URCaps" you should find the "GRIP Auto Connector" cap
- This title menu contains the selections for setting up the system
- For the initial set-up, a tray position is already saved in the drop-down menu. This position needs to be configured with the "Set-up Wizard"



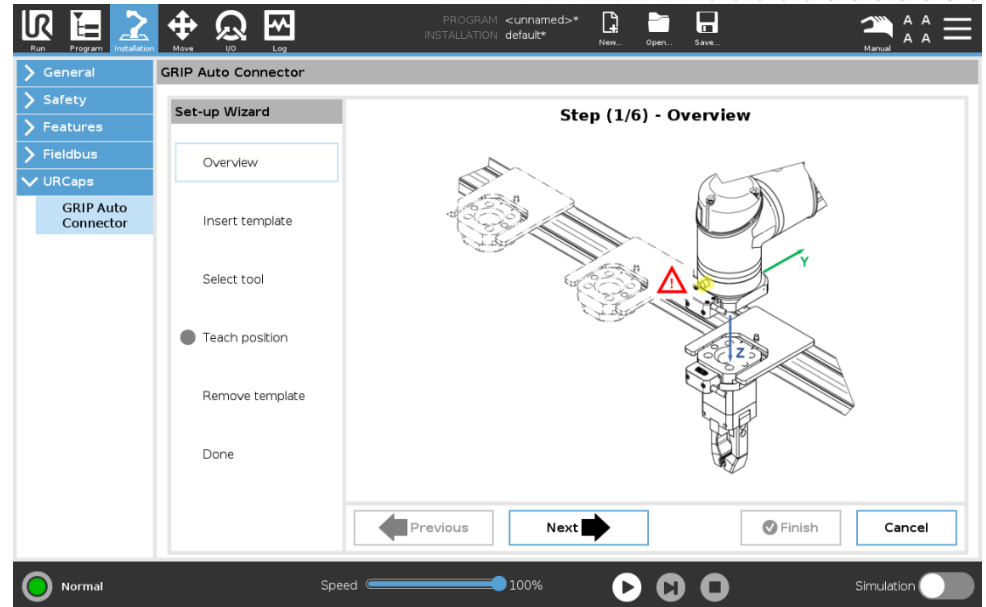
Set-up wizard

- If desired, the stored name can be changed by selecting "Rename" before or after the set-up
- To start the set-up, click on the "Set-up Wizard" fields highlighted in blue



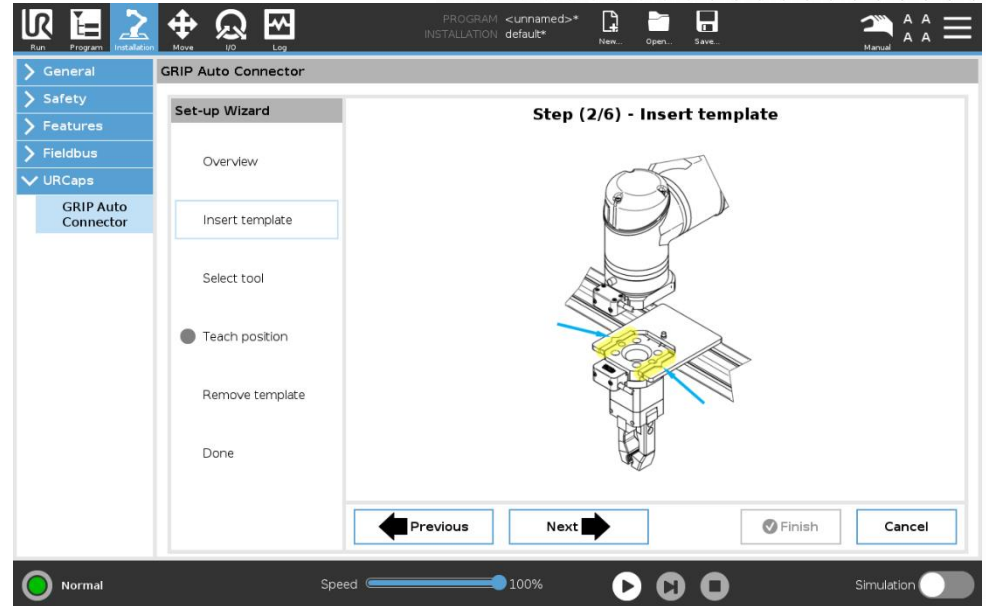
Overview

- The set-up wizard guides you step by step through the set-up of the tray stations
- "Step 1" shows an overview of the necessary preparation of the robot environment
- The lower assembly should be fixed in the tray; the upper assembly mounted in the same direction on the robot



Insert template (1/2)

- Select "Next" to go to the next step
- Insert the two set-up templates into the space between the lower assembly and the tray
- Make sure that the arrows of the templates point outwards, in the direction of the tray



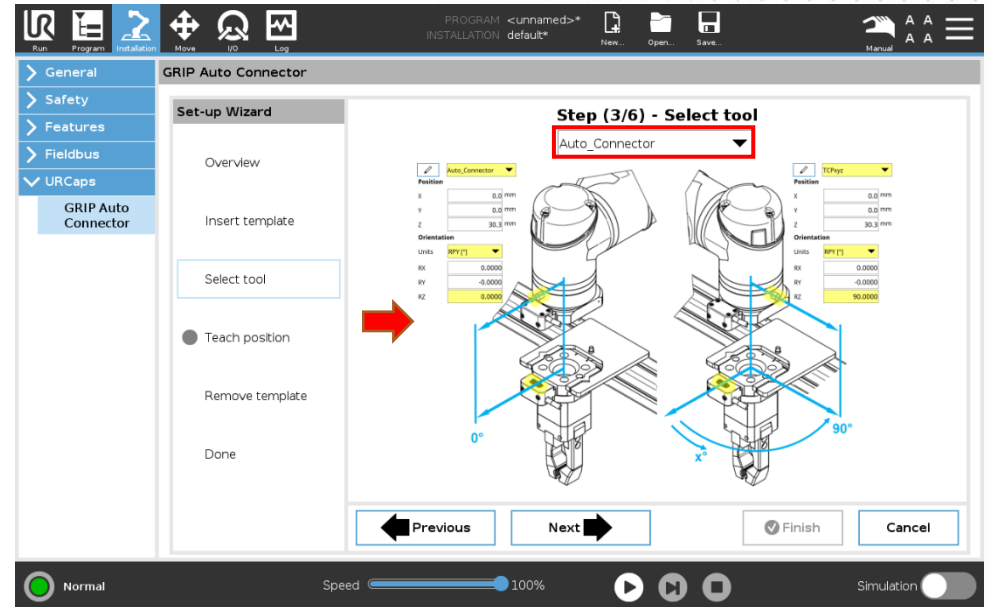
Insert template (2/2)

- Select "Next" to go to the next step
- Insert the two set-up templates into the space between the lower assembly and the tray
- Make sure that the arrows of the templates point outwards, in the direction of the tray



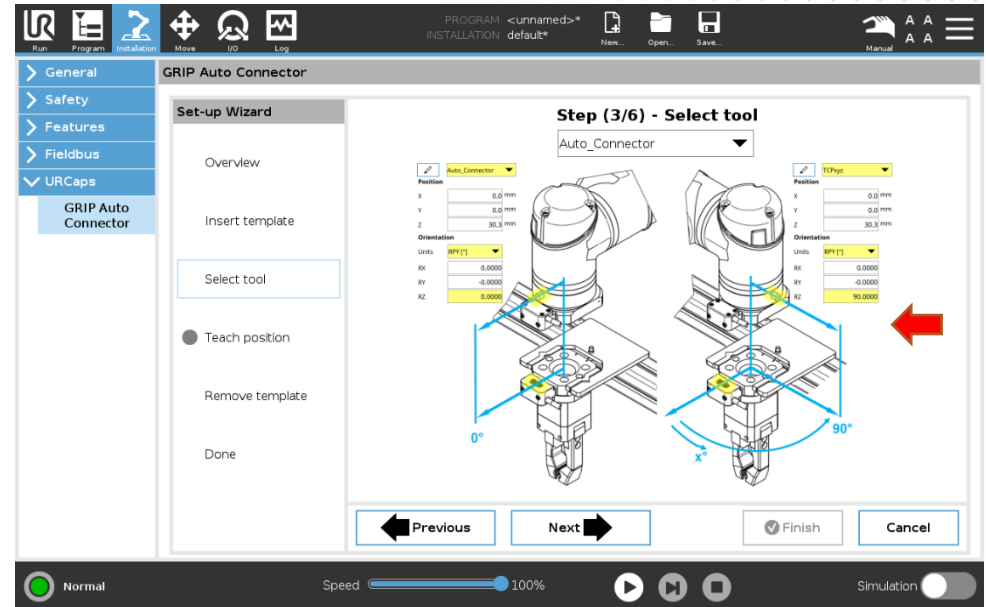
TCP (1/3)

- "Step 3" is used for the correct selection of the TCP
- A preset TCP can be selected in the drop-down menu visible above
- This TCP was configured so that the tool interface of the UR points away from the tray after the AC upper assembly has been aligned, as shown in the image on the left



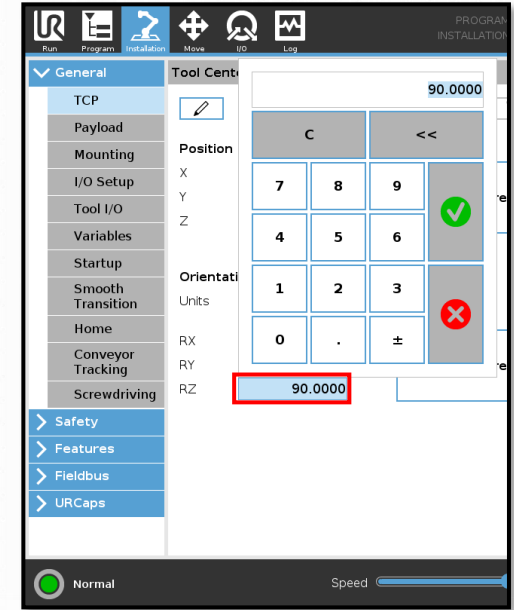
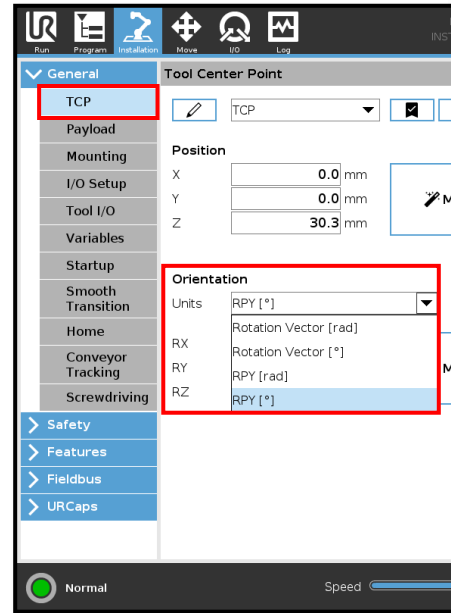
TCP (2/3)

- If the AC upper assembly was mounted to the robot with a 90° rotation, the TCP must be corrected
- In this case the orientation RZ must be adjusted in the TCP settings



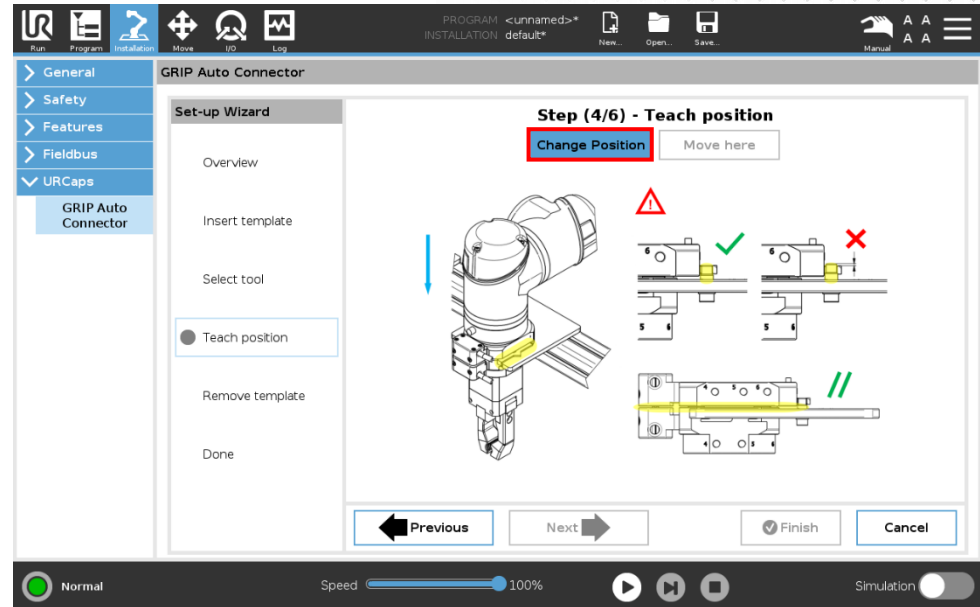
TCP (3/3)

- To do this, go to "TCP" in the installation menu
- Create a new TCP in the drop-down menu
- Define "30.3" for position Z
- Change the units under Orientation to "RPY[°]"
- Enter "90" as value and confirm the entry
- Your TCP has now been adjusted accordingly



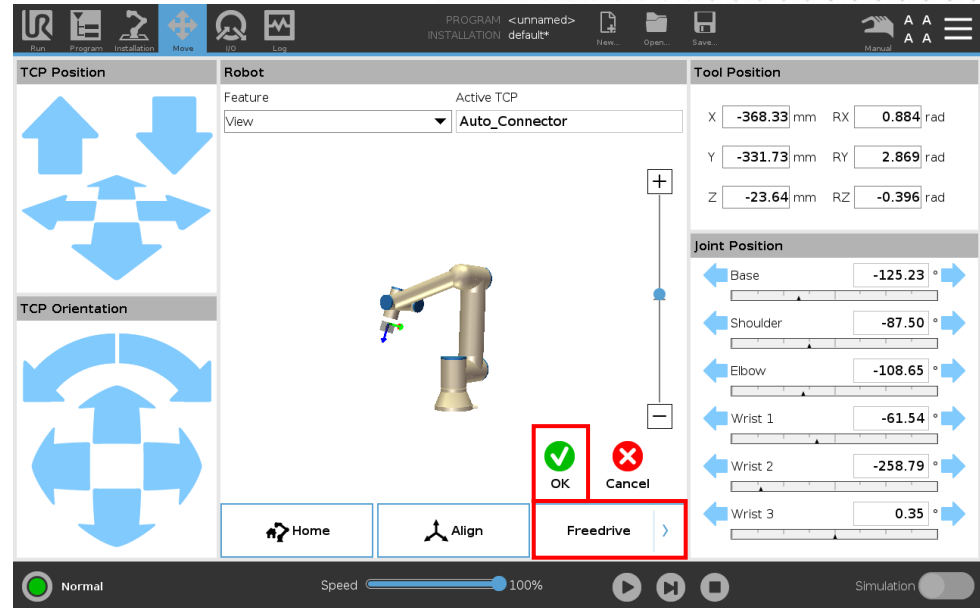
Teach position (1/2)

- The teaching of the home position follows in step 4
- Select "Change position" to change the view to the motion menu
- Move the robot in freedrive mode to the displayed position and confirm with "OK"
- Make sure that the upper assembly is lying flat and parallel on the templates of the lower assembly.



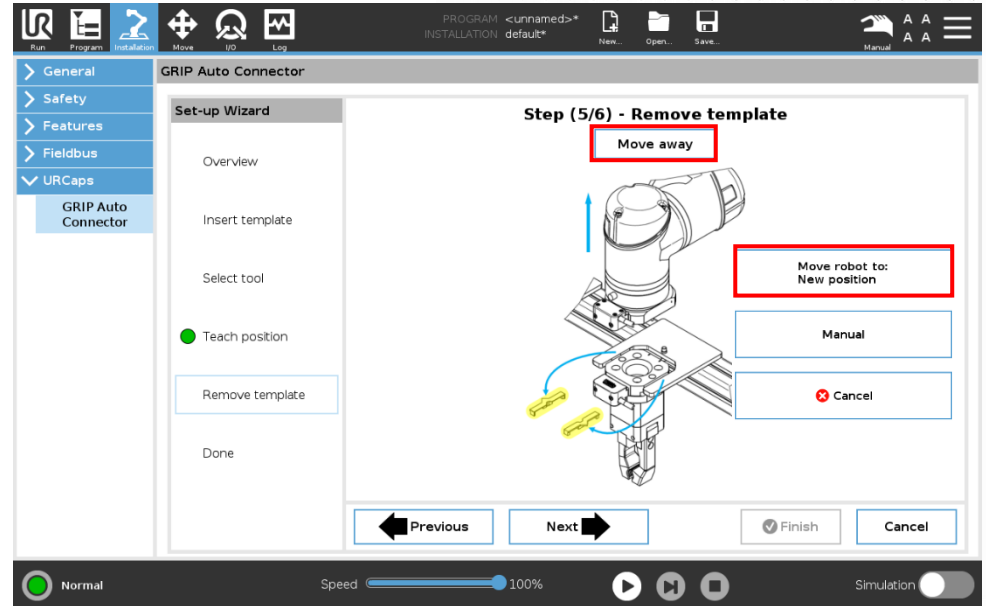
Teach position (2/2)

- The teaching of the home position follows in step 4
- Select "Change position" to change the view to the motion menu
- Move the robot in freedrive mode to the displayed position and confirm with "OK"
- Make sure that the upper assembly is lying flat and parallel on the templates of the lower assembly.



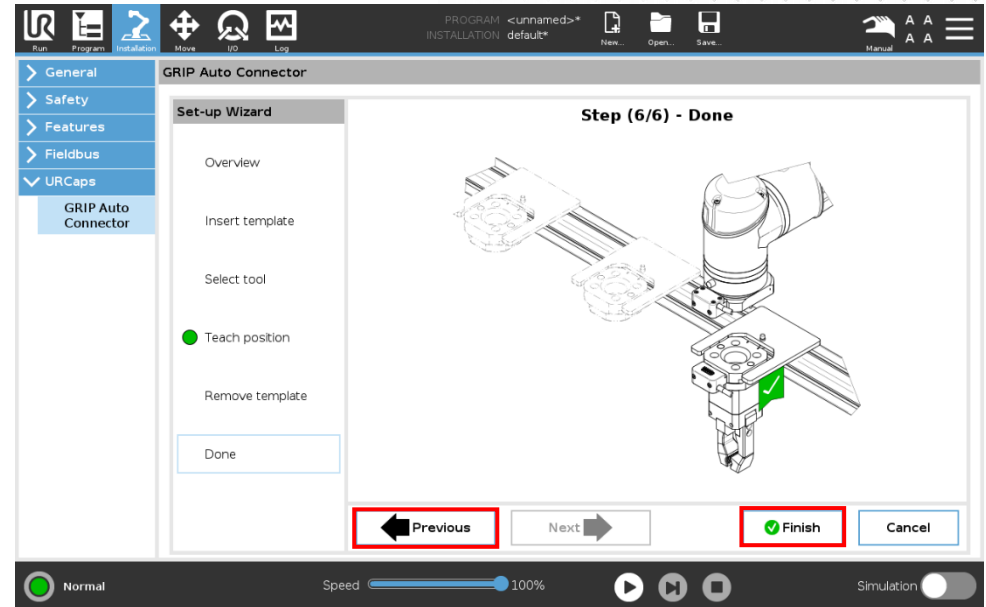
Remove template

- To remove the templates, select "Move away" this opens the window "Move robot to: New position"
- The robot performs a vertical motion and moves away from the lower assembly. You can now remove the templates
- If the templates are stuck, gently shake the bottom assembly or carefully pry them out with a flat screwdriver



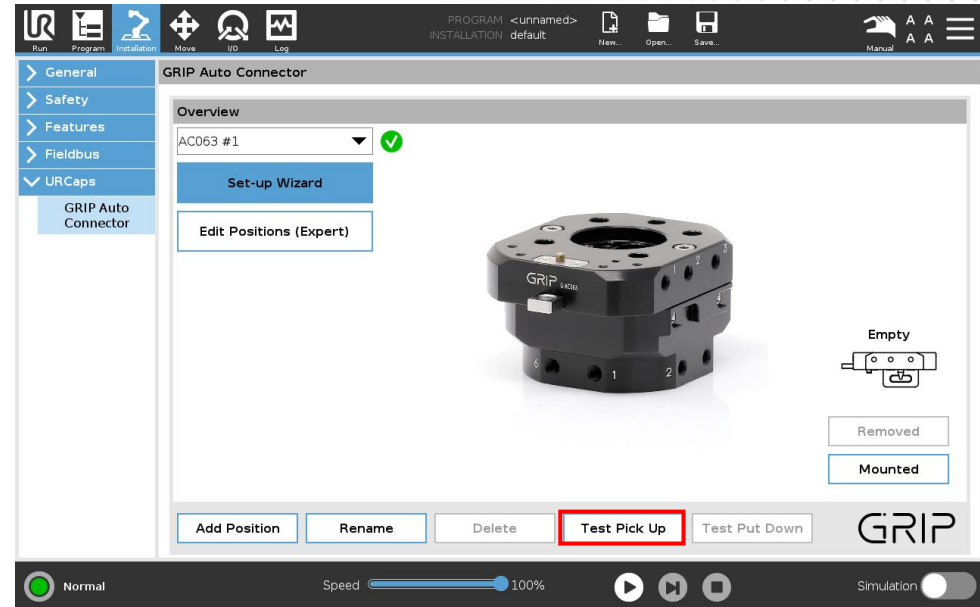
Completion

- If you wish to correct a programming step, you now have the option to return to previous steps
- Otherwise, the set-up can be completed by selecting "Finish"



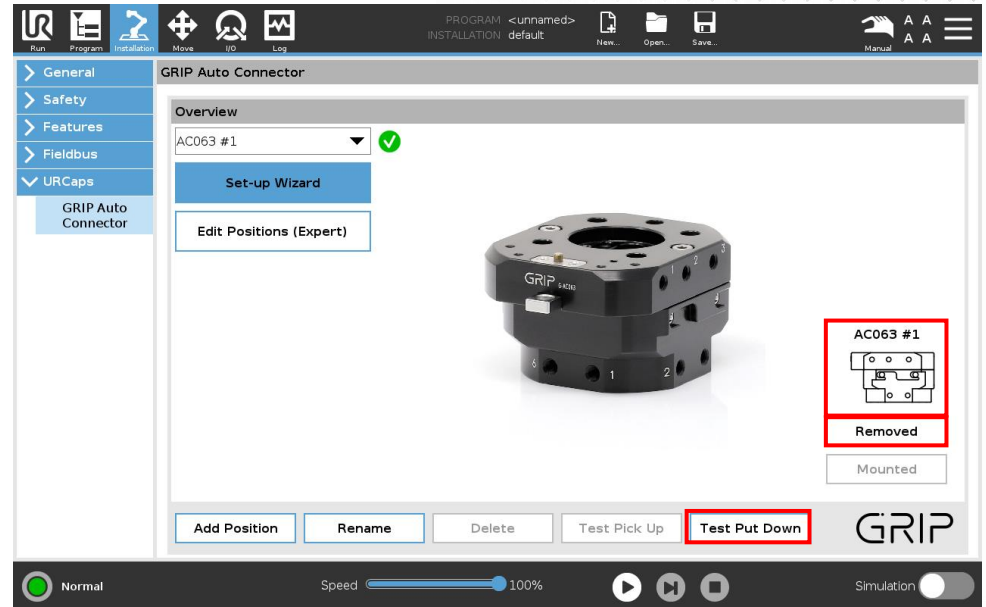
Test Pick Up

- You are now back in the title menu
- To verify the set-up, a test run can be performed by selecting "Test Pick Up"
- The robot moves to the home position above the tray and initiates the pickup of the lower assembly



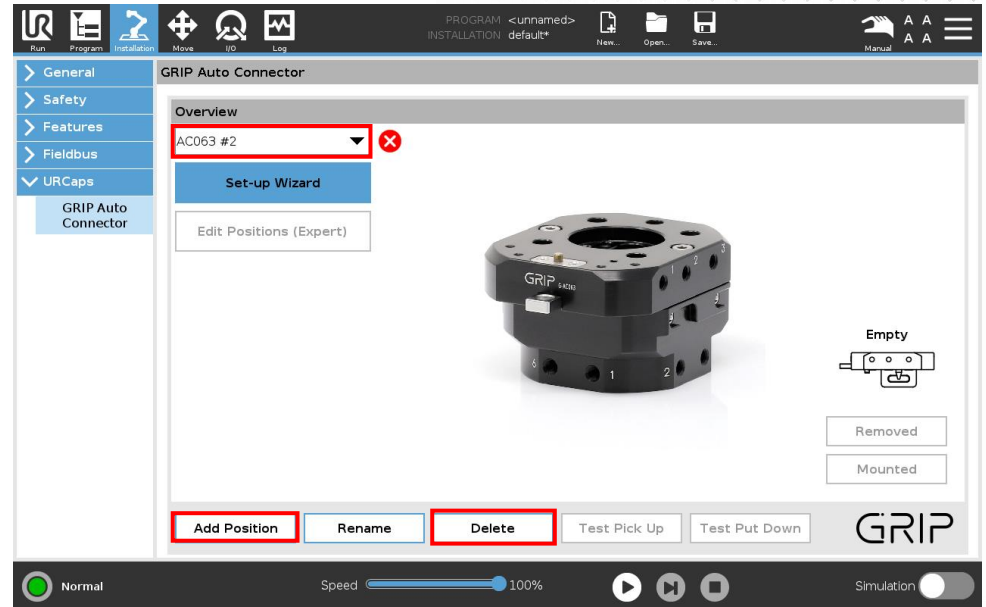
Test Put Down

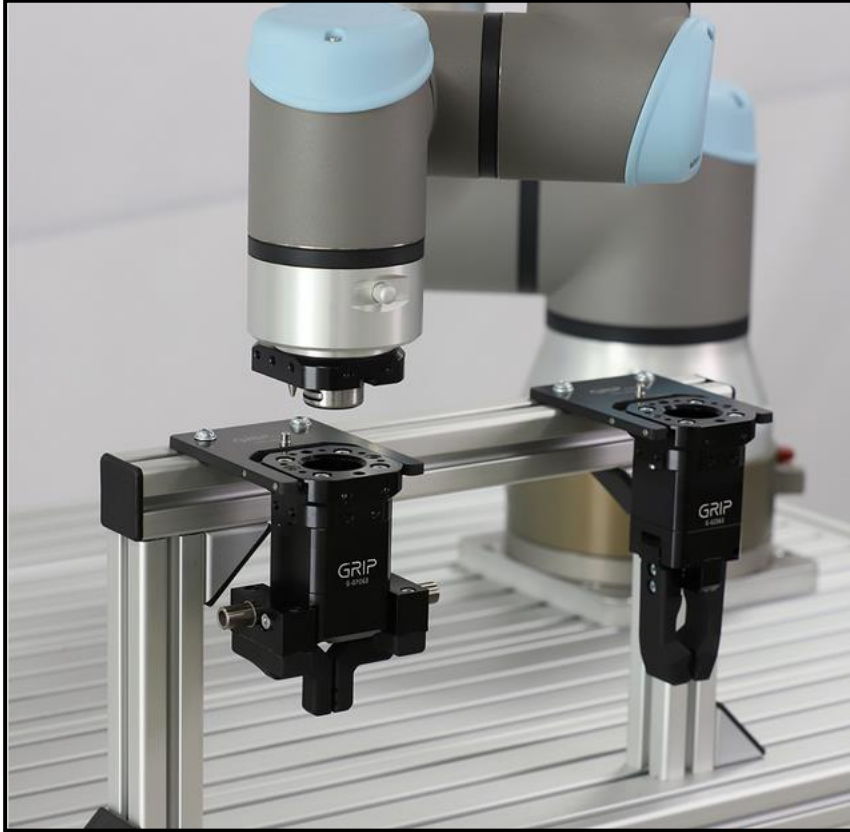
- After the test run, the display at the right edge of the screen shows the locked state
- By selecting “Test Put Down”, the robot initiates the parking process
- If the lower assembly is not mounted, the separated state of the two assemblies can be signaled via the “Removed” button



Further stations

- Further stations can be created by selecting "Add connector" or removed by selecting "Delete"
- New stations can be programmed by selecting "Set-up Wizard"





Thank you for using our products!

If you have any further questions,
please do not hesitate to contact us.