

HEXOPUS ADD-IN

Installation Guide

Installation through RobotStudio and offline deployment through the ABB FlexPendant

Document information	Data
Document type	Installation and commissioning instructions
Product	AuraSensae Hexopus Suite
Distribution package	AuraSensae-Hexopus-Suite-1.0.rspak
Robot platform	ABB GoFa CRB 15000, OmniCore controller, RobotWare 7
Validated engineering environment	RobotStudio 2025.5 (64-bit), version 25.5.11605.0
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1 About this document

1.1 Purpose

This guide explains how to make the Hexopus RobotWare add-in available on an ABB OmniCore controller and how to make the Hexopus graphical tool available in the RobotStudio User Library. It provides an online method using RobotStudio and an offline method in which a controller installation package is deployed from USB through the FlexPendant.

1.2 Scope

1. Importing the released .rspak distribution package into RobotStudio.
2. Including the Hexopus RobotWare product in an existing RobotWare 7 installation.
3. Creating an offline controller installation package for USB deployment.
4. Deploying that installation package through RobotWare Installation Utilities on the FlexPendant.
5. Verifying the controller add-in, FlexPendant application, and RobotStudio graphical library.

1.3 Intended audience

This document is intended for trained system integrators, commissioning engineers, and maintenance personnel who are authorized to modify ABB RobotWare installations. Personnel must understand the robot cell risk assessment, controller operating modes, access control, backup/restore procedures, and site-specific safety requirements.

1.4 Package terms

Term	Meaning in this guide
.rspak distribution package	The file imported into RobotStudio. It registers the controller add-in and the RobotStudio library resources.
RobotWare add-in	The controller-side AuraSensae/Hexopus software selected in Modify Installation.
Installation package	The complete RobotWare system package created by RobotStudio for offline deployment from USB.
Hexopus User Library	The graphical/mechanical tool component available from Home > Import Library in RobotStudio.

Term	Meaning in this guide
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FlexPendant application	The Hexopus user interface installed with the controller-side add-in.
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**IMPORTANT
DISTINCTION**

A .rspak file cannot be selected and installed directly from the FlexPendant. RobotStudio must first import the .rspak and create a controller installation package. The FlexPendant then deploys that installation package through RobotWare Installation Utilities.

2 Safety and prerequisites

2.1 Safety requirements

**WARNING —
CONTROLLER
RESTART**

Modifying a RobotWare installation stops controller operation and requires a controller restart. Stop production, place the robot in a safe state, notify affected personnel, and follow the site lockout/tagout and access-control procedures before starting.

**CAUTION —
SAFETY
VALIDATION**

After any software or configuration change, revalidate safety functions, safety I/O, tool data, payload data, operating modes, and all interfaces affected by the installation before returning the cell to automatic production.

2.2 Required items

Item	Requirement
Released package	AuraSensae-Hexopus-Suite-1.0>.rspak, obtained from an approved AuraSensae source.
Host PC	Windows PC with RobotStudio 2025.5 (64-bit) or the approved later compatible version.
Robot controller	ABB OmniCore with RobotWare 7.18 or later, subject to the dependencies displayed by Modify Installation.
Robot	ABB GoFa CRB 15000, 5 kg, 10 kg, or 12 kg variant, as applicable.
Authorization	RobotStudio login and controller permissions sufficient to request write access and modify the installation.
Backup	A verified controller backup stored outside the controller before modification.
Offline method only	A USB storage device recognized by the controller and sufficient free space for the complete installation package.

2.3 Pre-installation checklist

1. Confirm the exact .rspak filename, version, checksum, and release authorization.
2. Confirm the target controller identity, robot model, RobotWare version, and installed licenses.
3. Confirm that production is stopped and the robot is in a safe condition.
4. Create and verify a current controller backup. Keep it on the Host PC or approved network storage.
5. Close unrelated RobotStudio stations and disconnect from controllers that are not part of this installation.
6. Ensure stable controller and PC power. Do not begin during a scheduled power interruption or network maintenance window.

**BACKUP
SCOPE**

A newly created or re-deployed RobotWare system does not automatically contain all RAPID programs and system parameters from the previous system. Keep a verified backup available for restore after deployment when required.

3 Method A — Online installation with RobotStudio

Use this method when the host PC can connect to the target controller. It is the preferred method for updating an existing RobotWare 7 installation because package selection, dependency checks, controller backup, and event-log review can be completed from one workstation.

3.1 Import the distribution package into RobotStudio

1. Start RobotStudio using the Windows account that will be used for commissioning.
2. Open the Add-Ins tab and select Install Package.
3. Browse to AuraSenseae-Hexopus-Suite-1.0.rspak and select Open.
4. Read and accept any package information or security prompt shown by RobotStudio.
5. Wait for the package import to finish. If RobotStudio requests a restart, close and reopen RobotStudio before continuing.
6. Return to the Add-Ins page and confirm that the AuraSenseae Hexopus Suite is listed as installed with the expected version.

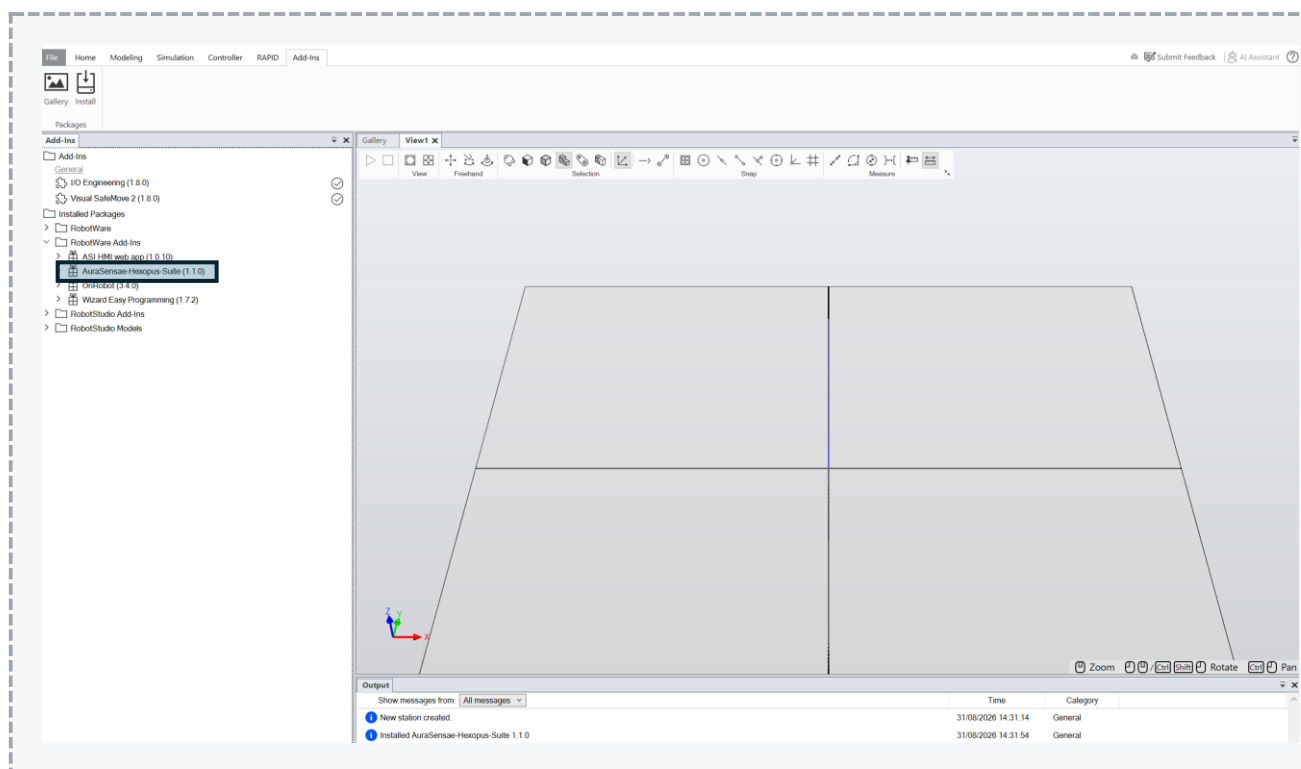


Figure RS-01 — Installed package confirmation

3.2 Connect to the controller and create a backup

1. Connect the host PC to the controller management/service network or the approved factory network.
2. In RobotStudio, open the Controller tab and select Add Controller > Connect to Controller.
3. Select the correct controller by name and controller ID, then connect.
4. Log on with an authorized account and request write access. Accept the request locally on the FlexPendant if required by the controller policy.
5. Create a complete controller backup and copy it to an approved location outside the controller.

6. Record the controller name, controller ID, RobotWare version, backup path, and backup date in Section 7.

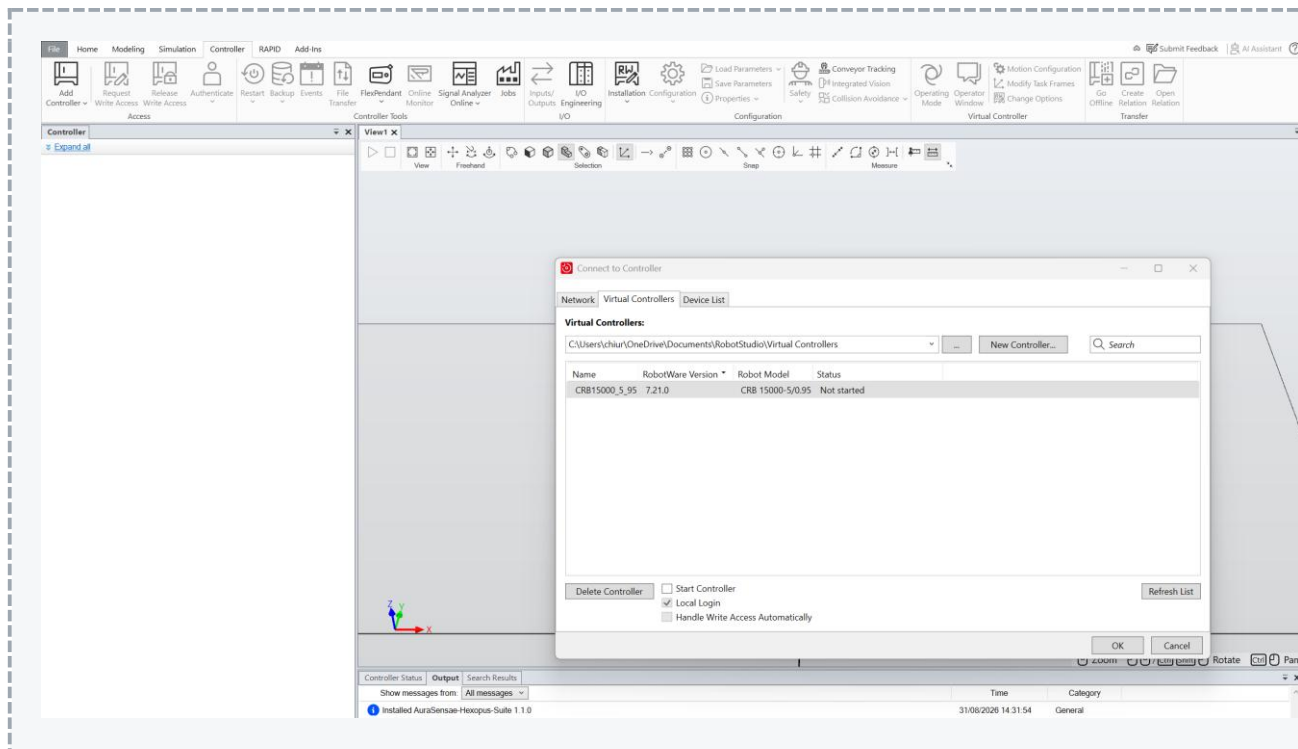


Figure RS-02 — Connected controller and write access

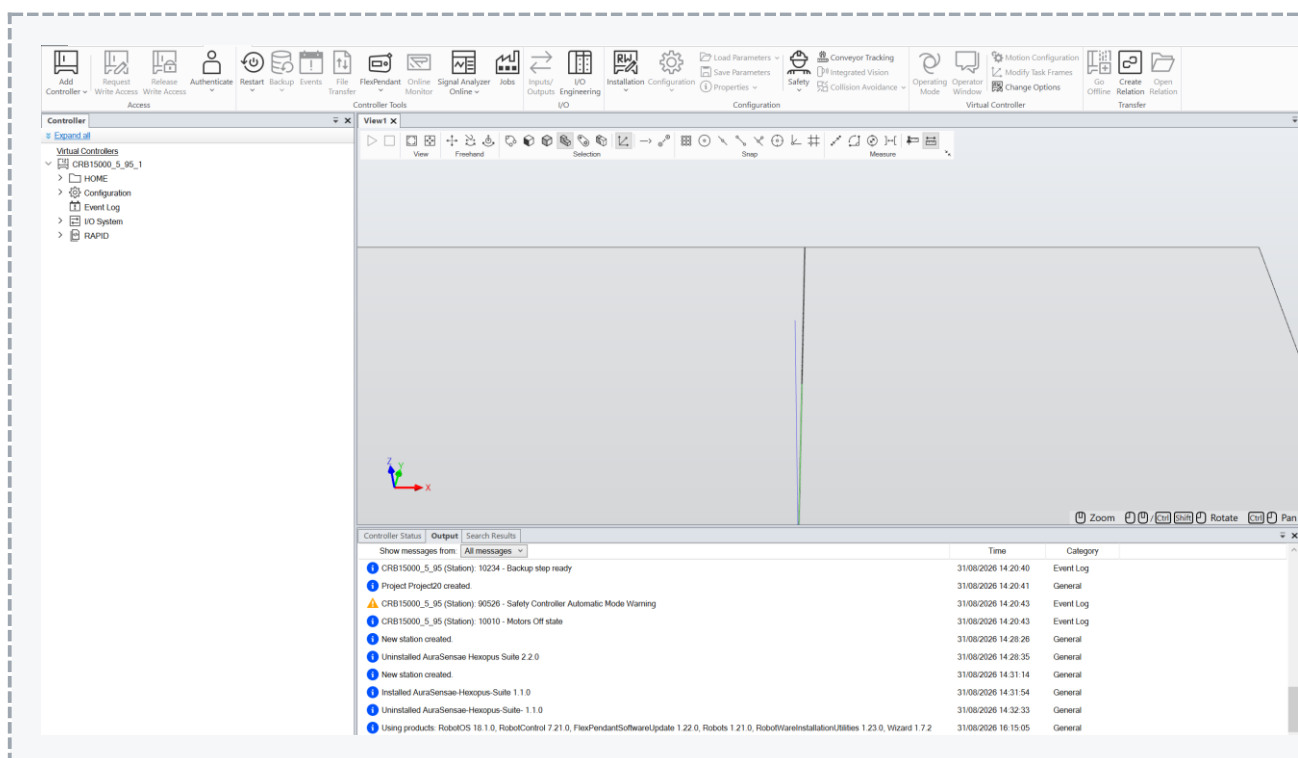


Figure RS-03 — Completed controller backup

3.3 Include Hexopus in the RobotWare installation

OPERATING STATE

The controller must be placed in the operating state requested by Modify Installation. Follow the RobotStudio prompt and the site procedure for entering RobotWare system mode. Do not bypass local confirmation or access-control requirements.

1. With the correct controller selected, open Controller > Modify Installation.
2. Open the Software tab and review the products already included in the current RobotWare system.
3. Open Available products and locate the AuraSenseae/Hexopus RobotWare add-in. Select it and choose Include.
4. If product options are shown, select the Hexopus option intended for the target system.
5. Review every dependency or compatibility message. Resolve missing RobotWare versions, controller options, or licenses before proceeding.
6. Open Summary and confirm that the correct controller and AuraSenseae/Hexopus product are shown. Verify that no unrelated product will be removed.
7. Select Apply or Apply and reset, as offered by RobotStudio. Confirm the change only after the summary has been reviewed.
8. Wait until the installation and controller restart are complete. Do not switch off the controller, disconnect the engineering PC, or interrupt the process.

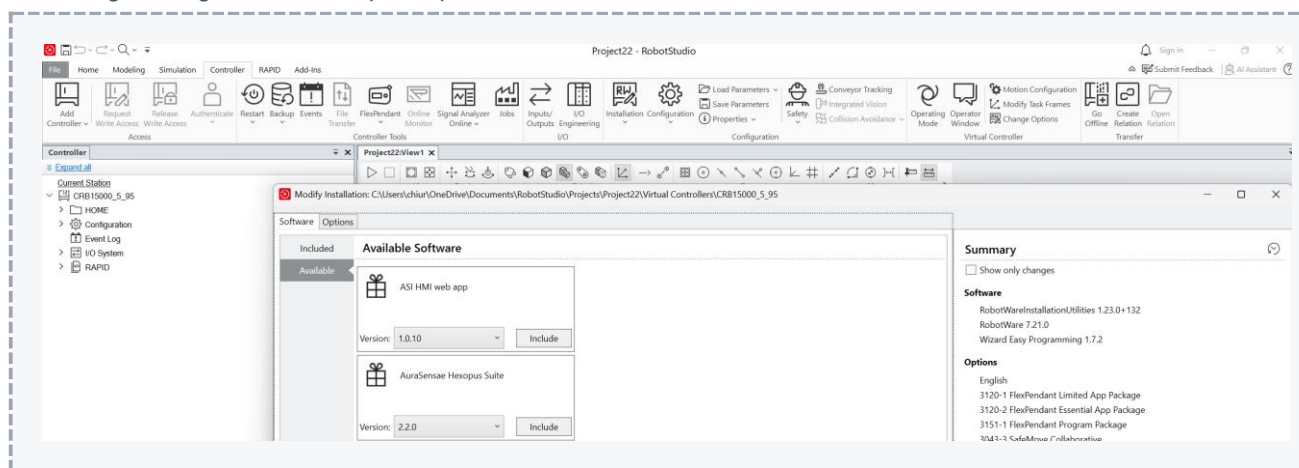


Figure RS-04 — Hexopus selected in Modify Installation

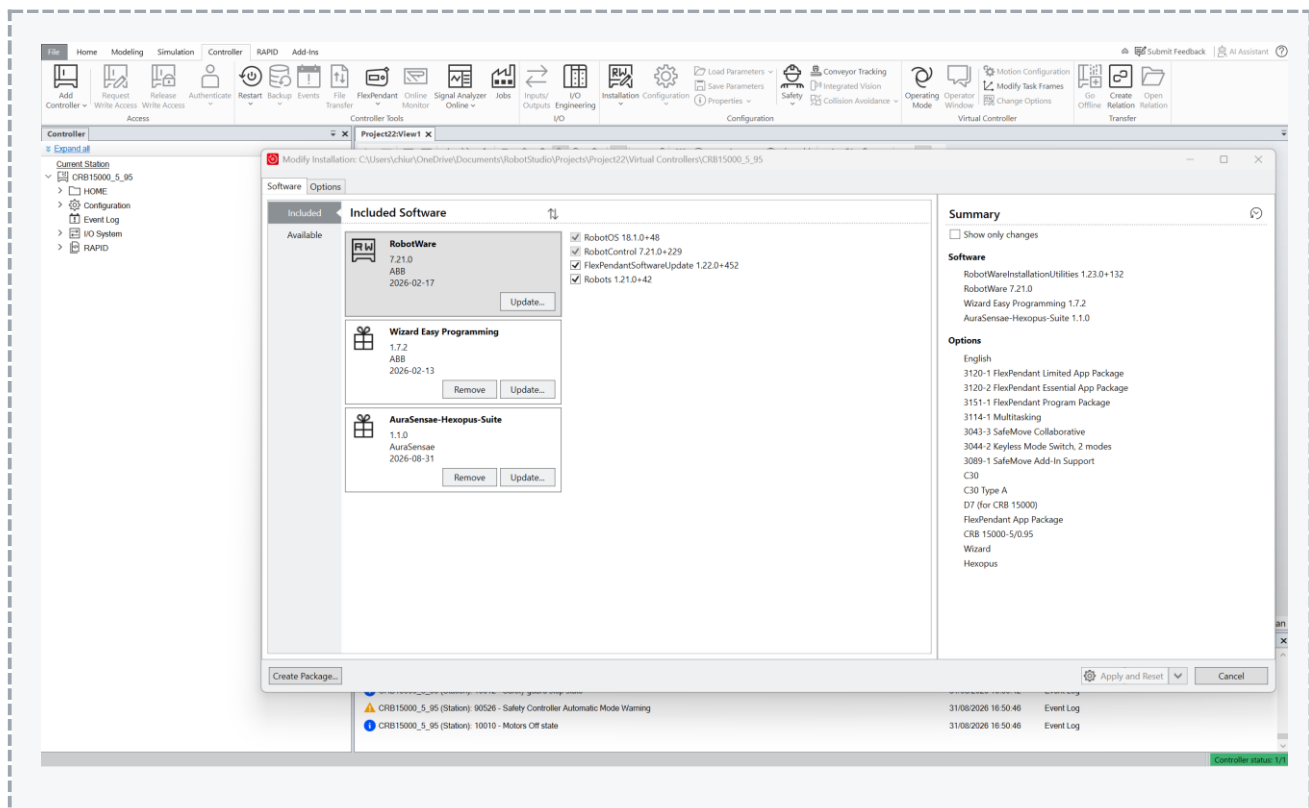


Figure RS-05 — Installation summary

3.4 Verify the RobotStudio User Library

STATION MODEL VERSUS CONTROLLER DATA

Importing the Hexopus graphical library changes the RobotStudio station only. It does not by itself create or validate controller tooldata, payload data, safety configuration, or physical tooling. Complete the commissioning checks in Section 5.

1. Open or create the RobotStudio station containing the target GoFa robot.
2. On the Home tab, open Import Library and select User Library.
3. Locate Hexopus and import it into the station.
4. Confirm that one Hexopus component appears in the station browser and in the 3D view.
5. Attach the component to the intended GoFa flange using the approved station procedure. Confirm position and orientation before saving the station.

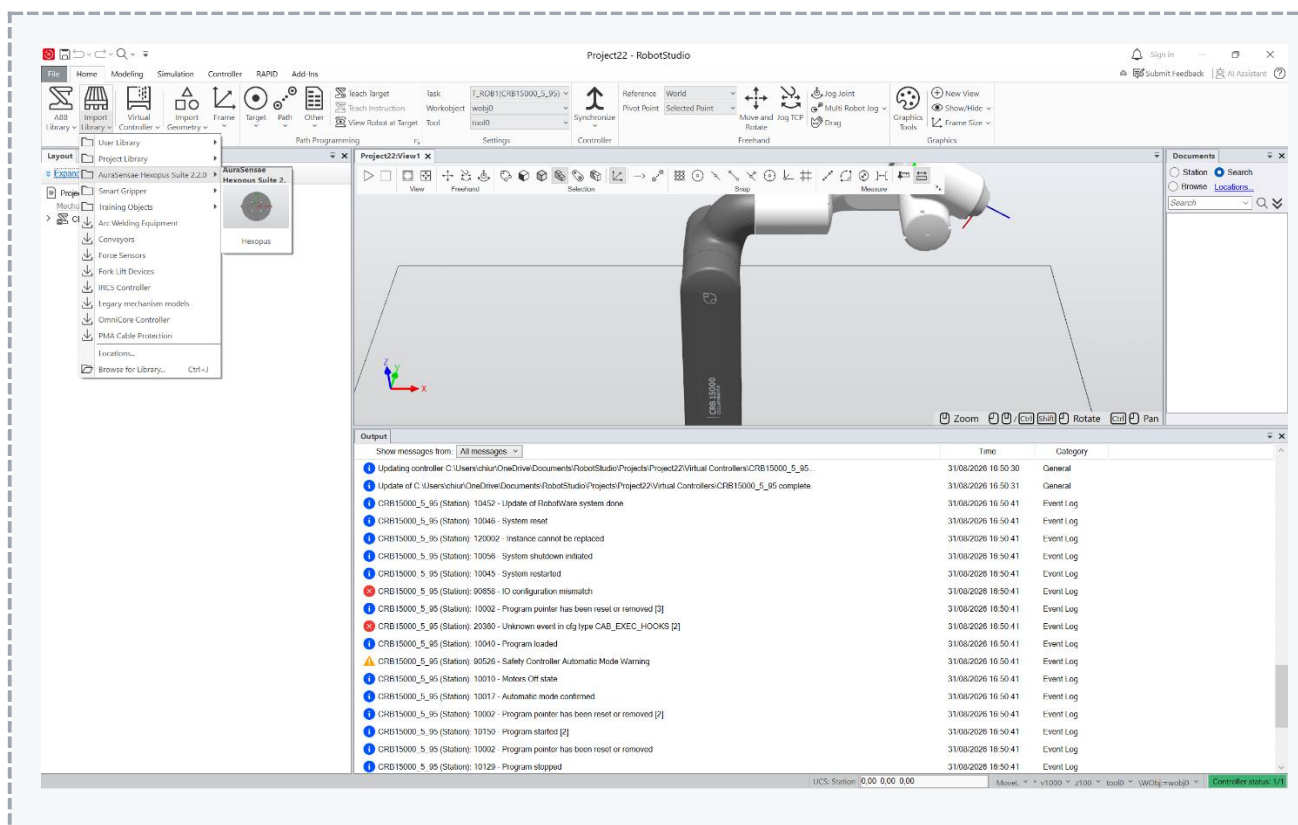


Figure RS-06 — Hexopus in the User Library

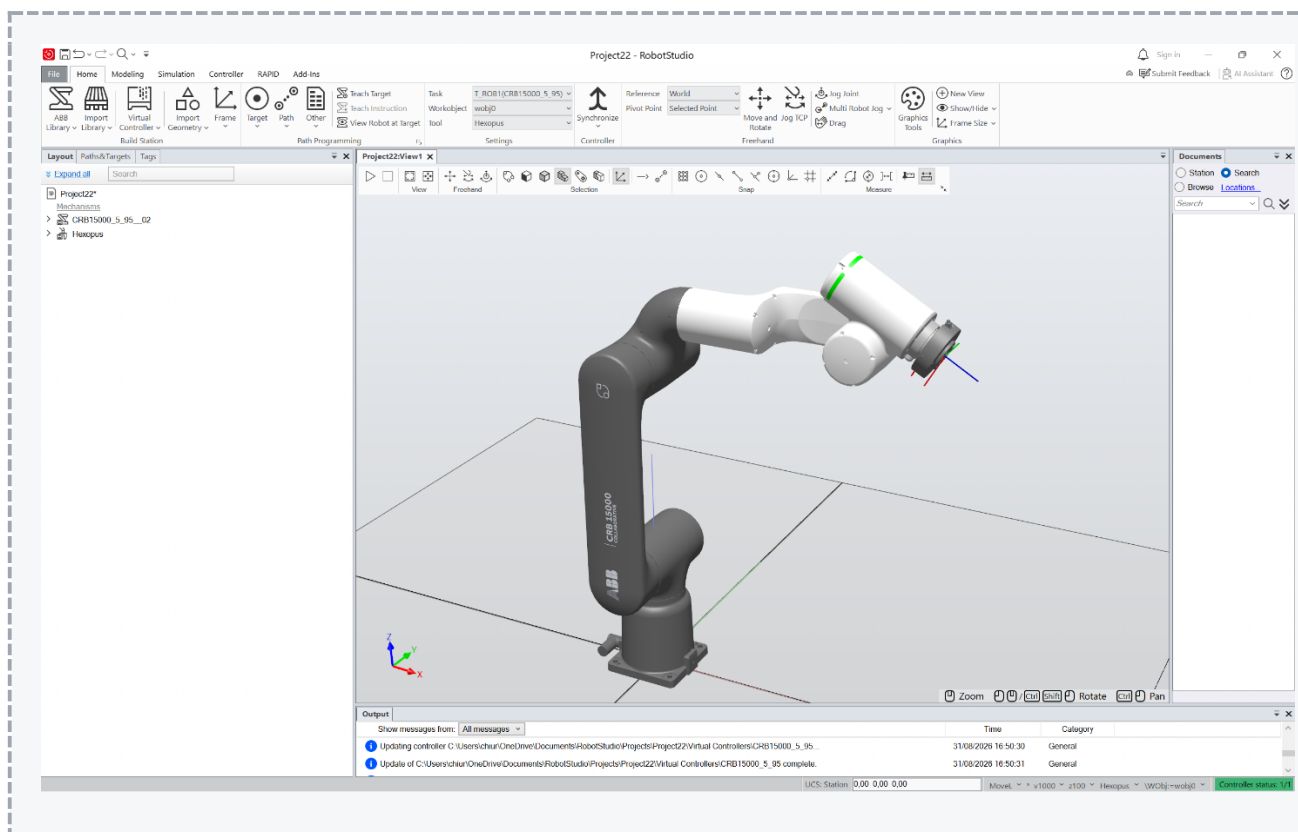


Figure RS-7 — Hexopus attached to the GoFa flange

4 Method B — Offline deployment using the FlexPendant

Use this method when the final controller is to be installed without an online RobotStudio session. The engineering preparation is still performed in RobotStudio; the resulting controller installation package is copied to USB and deployed on the controller through RobotWare Installation Utilities on the FlexPendant.

4.1 Deploy the installation package from the FlexPendant

SCREEN LABELS

The exact FlexPendant labels can vary slightly with the RobotWare 7 minor release. Capture and insert the screenshots from the customer-approved target release. The functional sequence remains: enter RobotWare Installation Utilities, select the USB installation package, review, deploy, and restart.

1. Stop production and place the robot system in the safe state defined by the site procedure. Confirm that a verified backup is available outside the controller.
2. Insert the prepared USB device into a controller or FlexPendant USB port supported by the target OmniCore system.
3. Log on at the FlexPendant with an account authorized to install controller software.
4. Restart the controller into RobotWare Installation Utilities using the controller restart/installation function. Confirm the transition when prompted. Robot motion and program execution are unavailable in this mode.
5. Open the installation/deployment function and browse to the installation package folder on the USB device. Select the package itself, not only an individual file inside the folder.
6. Review the displayed package name, controller identity, RobotWare version, licensed features, and included AuraSensae/Hexopus product.
7. Start the installation and confirm the warning that controller software will be updated or re-deployed.
8. Wait for the process to finish. Do not remove the USB device, switch off the controller, disconnect the FlexPendant, or press emergency stop unless required by an actual hazardous situation.
9. When prompted, restart the controller into normal RobotWare operation and wait until the FlexPendant reconnects completely.

If the package was used to create or re-deploy a new system, restore the approved backup or approved RAPID/configuration files as required by the commissioning plan.

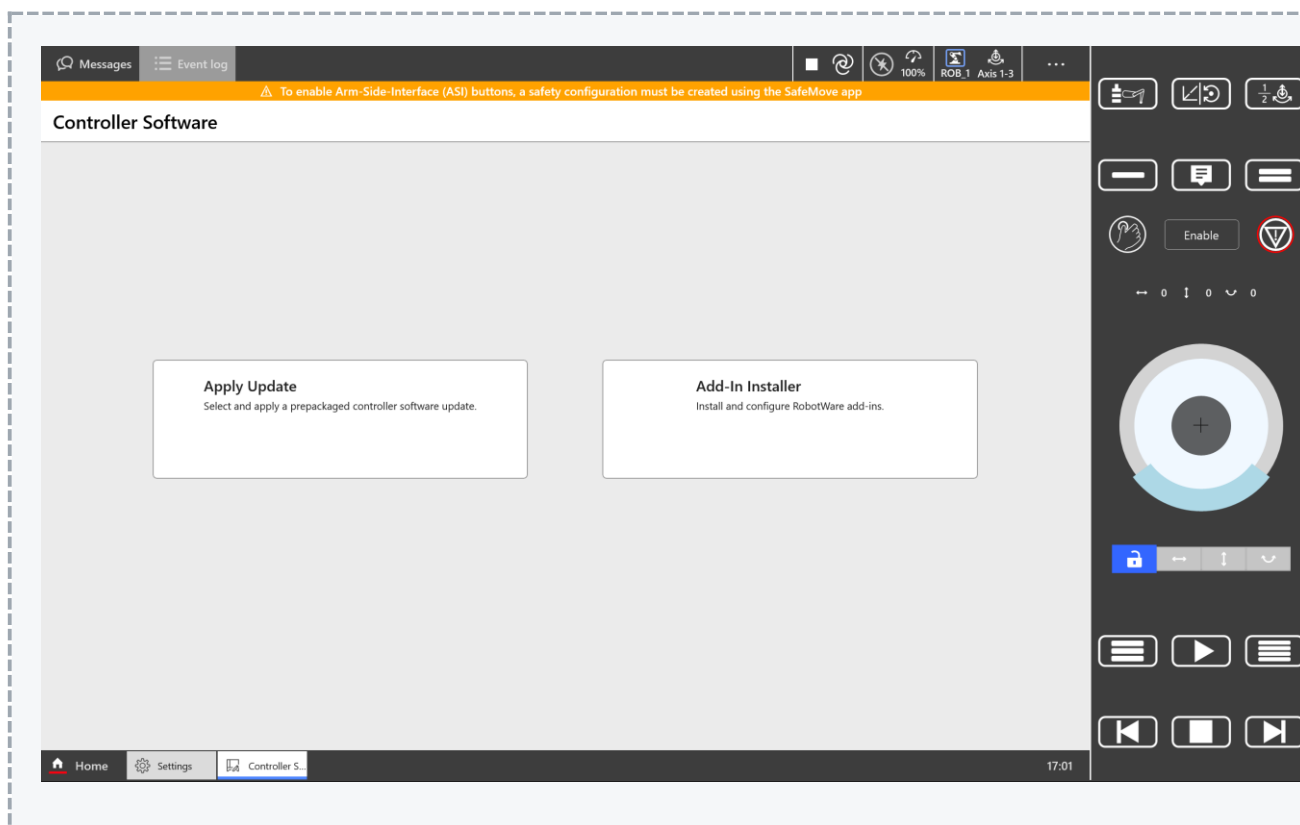


Figure FP-01 — USB installation package selected

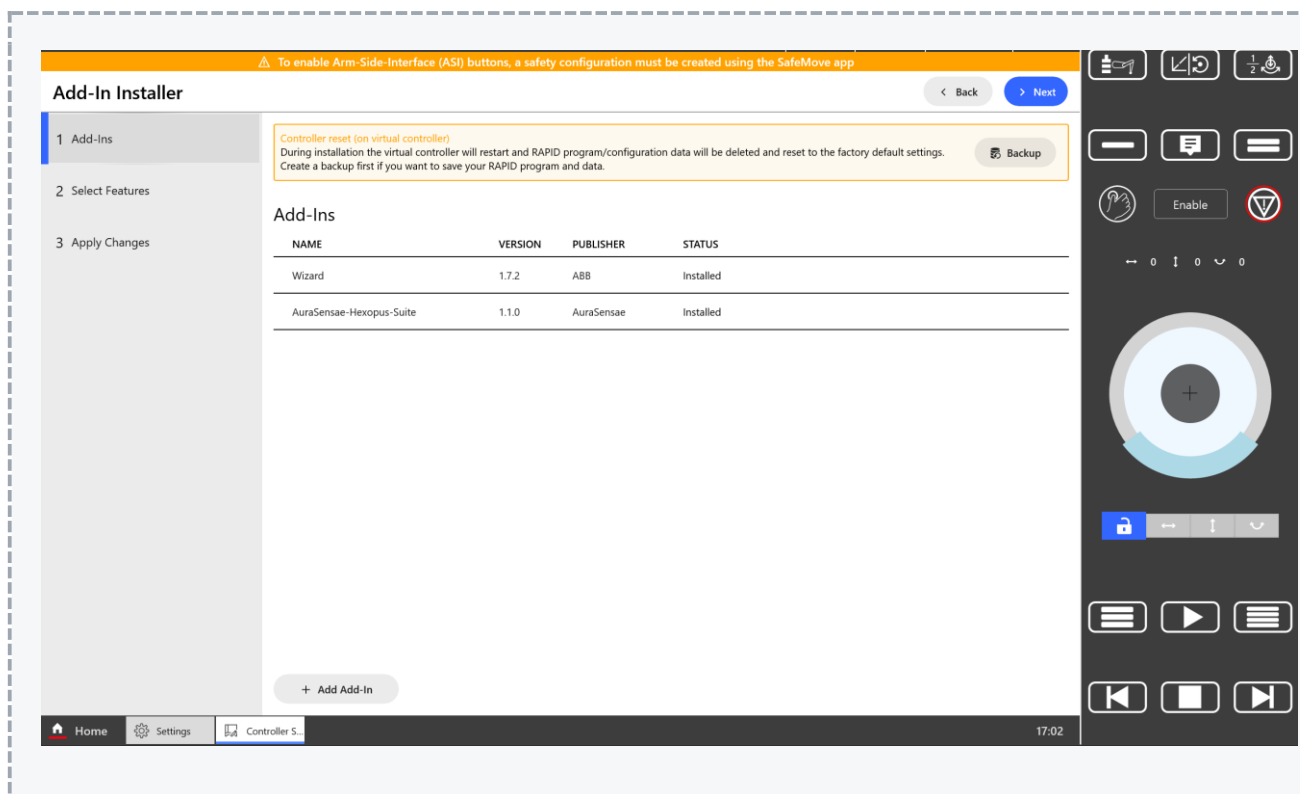


Figure FP-02 — Package review and confirmation

4.3 Verify the controller from the FlexPendant

1. Confirm that the controller starts without installation, dependency, licensing, or configuration errors.
2. Open the Event Log and verify that no unresolved error is associated with AuraSensae, Hexopus, RobotWare product installation, I/O, or safety configuration.
3. Open the FlexPendant applications screen and confirm that the Hexopus application is present.
4. Open Hexopus and confirm that its initial screen loads without an error.
5. Record the installed RobotWare and Hexopus versions in Section 7.

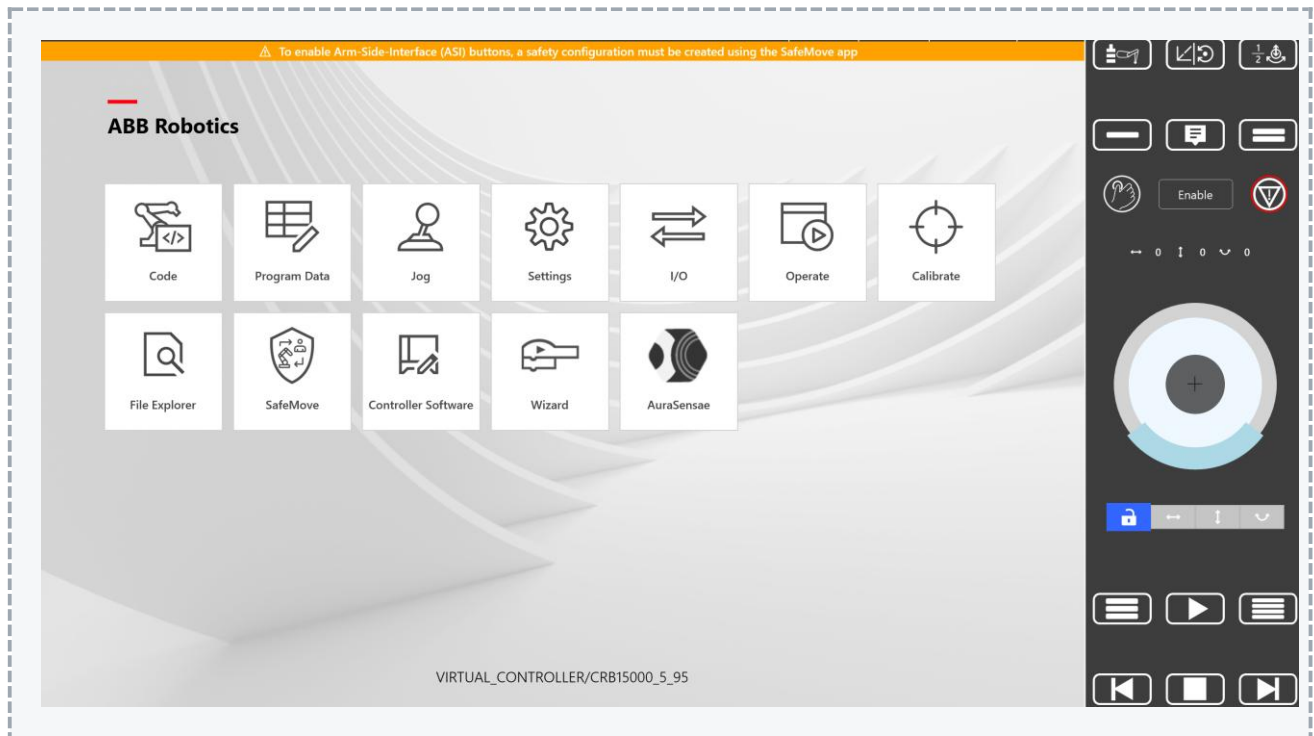


Figure FP-03 — Hexopus application on the FlexPendant

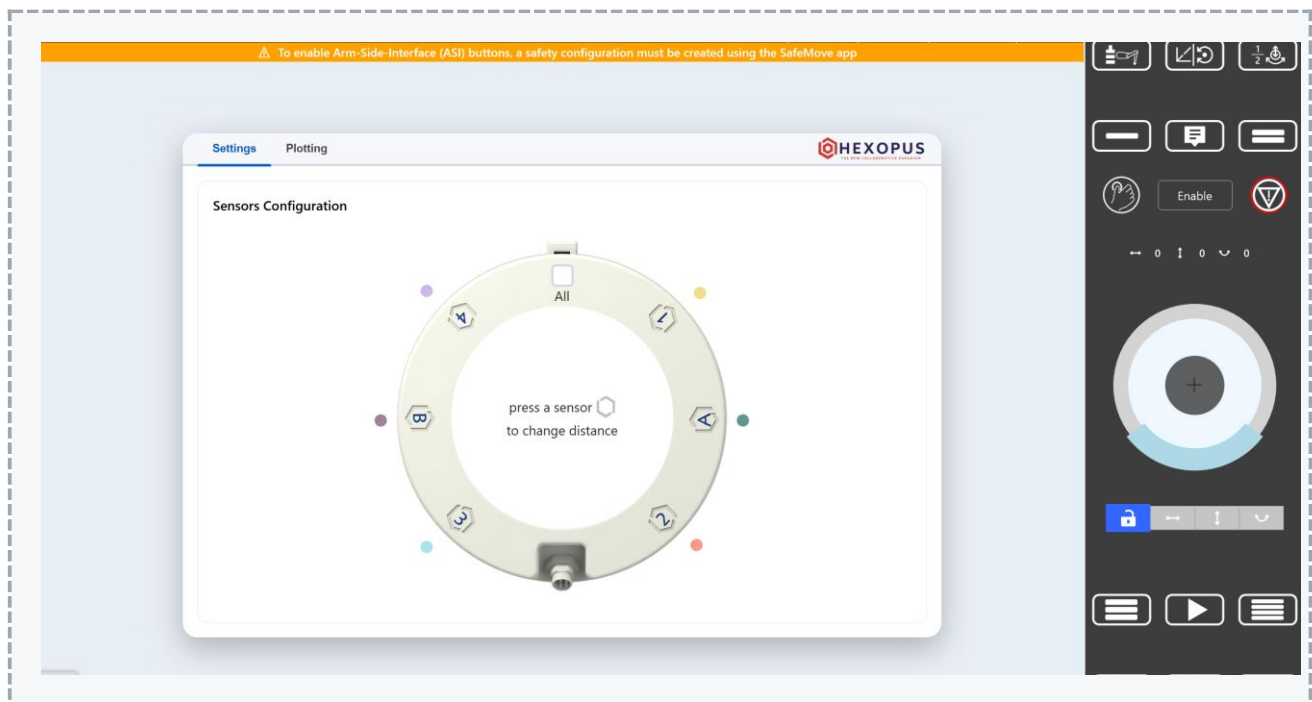


Figure FP-04 — Hexopus application start screen

5 SafeMove installation

5.1 SafeMove configurator

1. Log on at the FlexPendant with an account authorized to install controller software.
2. Access the SafeMove Configurator.
3. Go into edit mode.
4. Load the AuraSensae Default Template.
5. Write to controller.
6. Ack the report and apply to the controller.
7. When prompted, restart the controller.

If the package was used to create or re-deploy a new system, restore the approved backup or approved RAPID/configuration files as required by the commissioning plan.

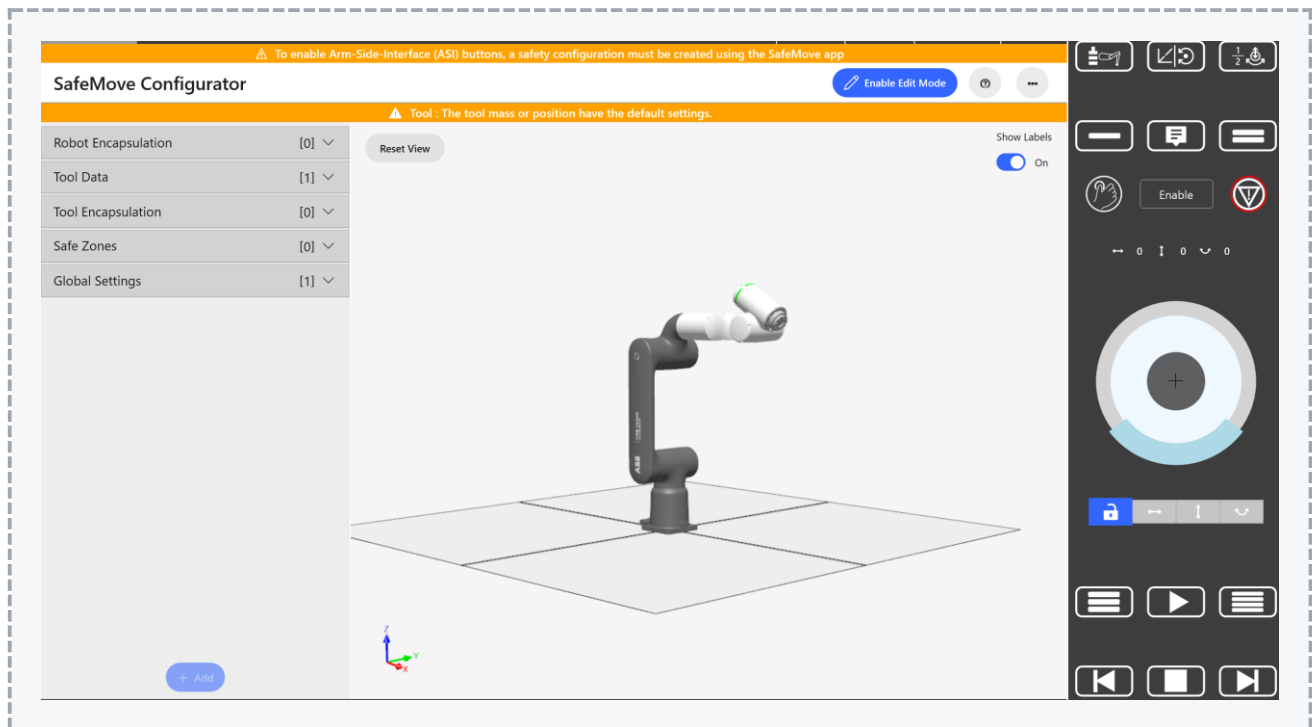


Figure SM-01 — SafeMove Configurator

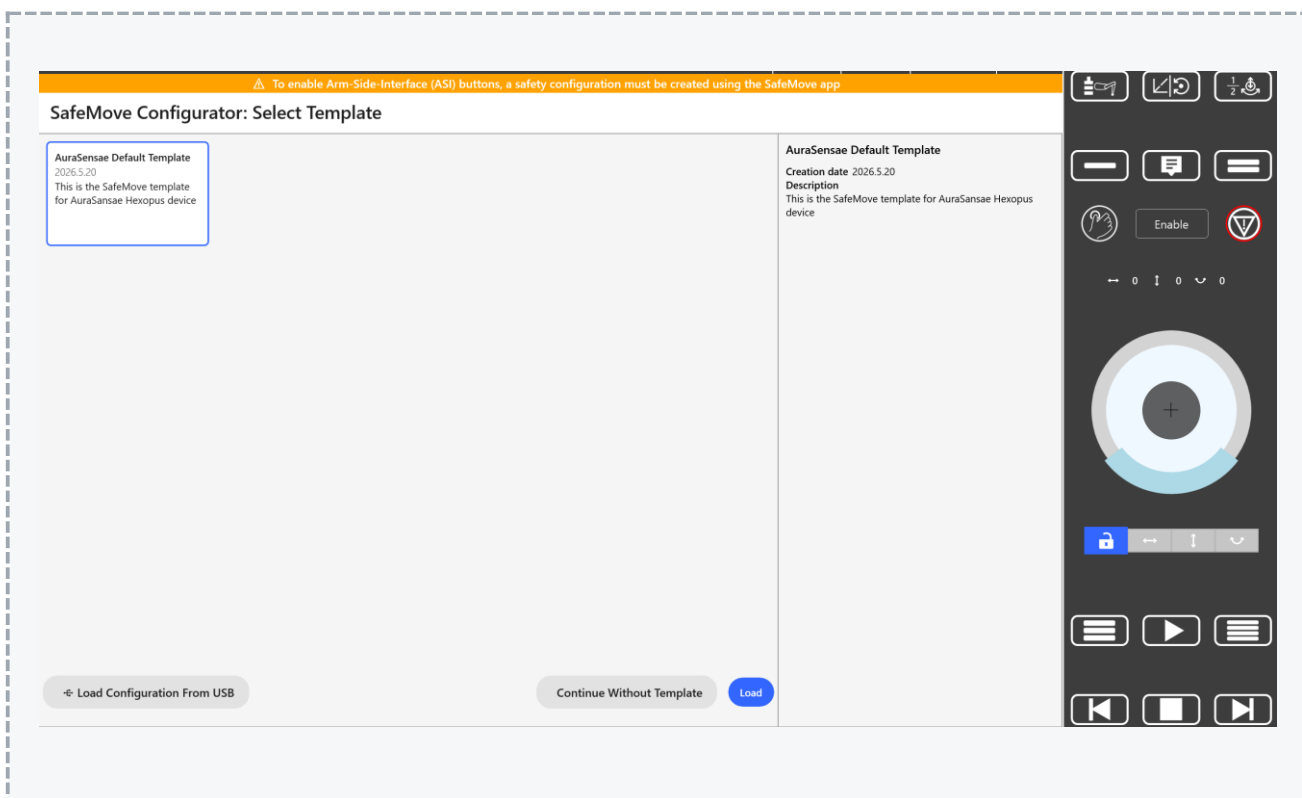


Figure SM-02 — Load the template

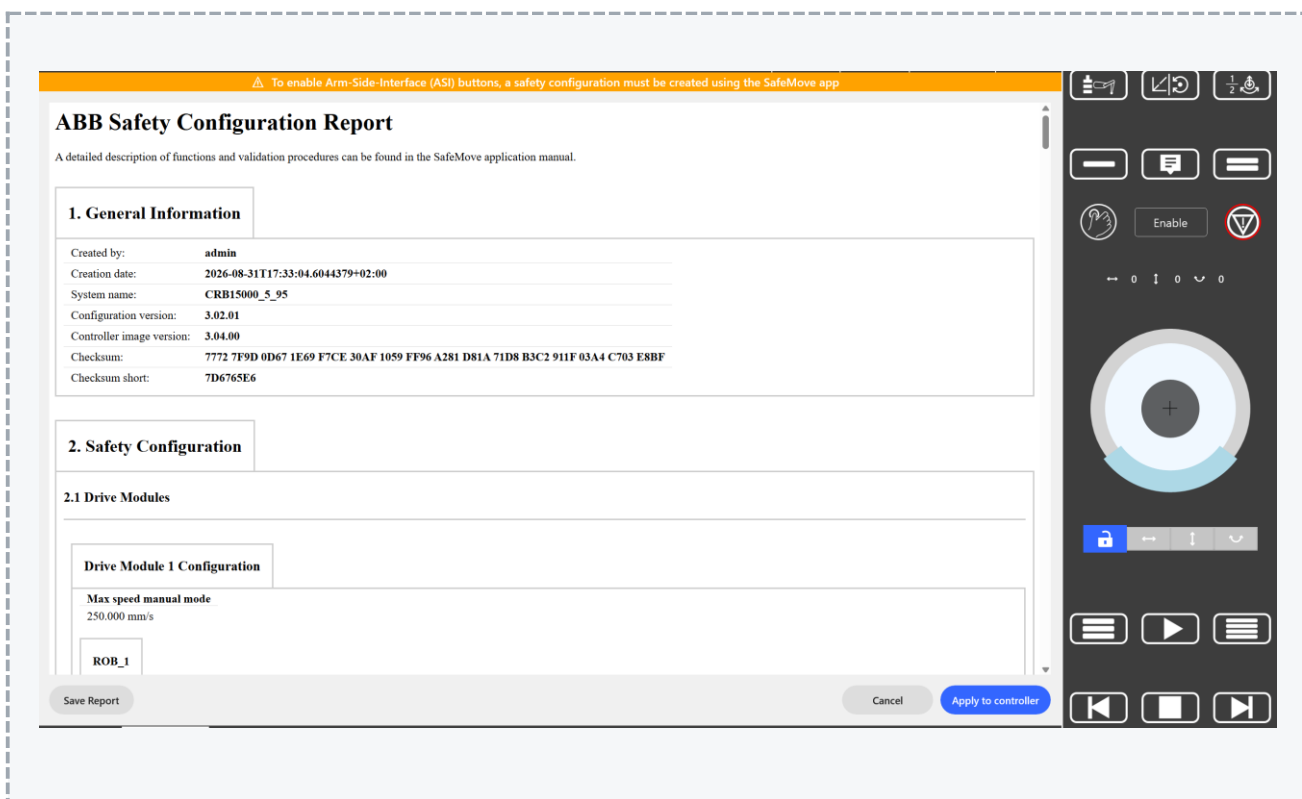


Figure SM-03 — Report acknowledgement

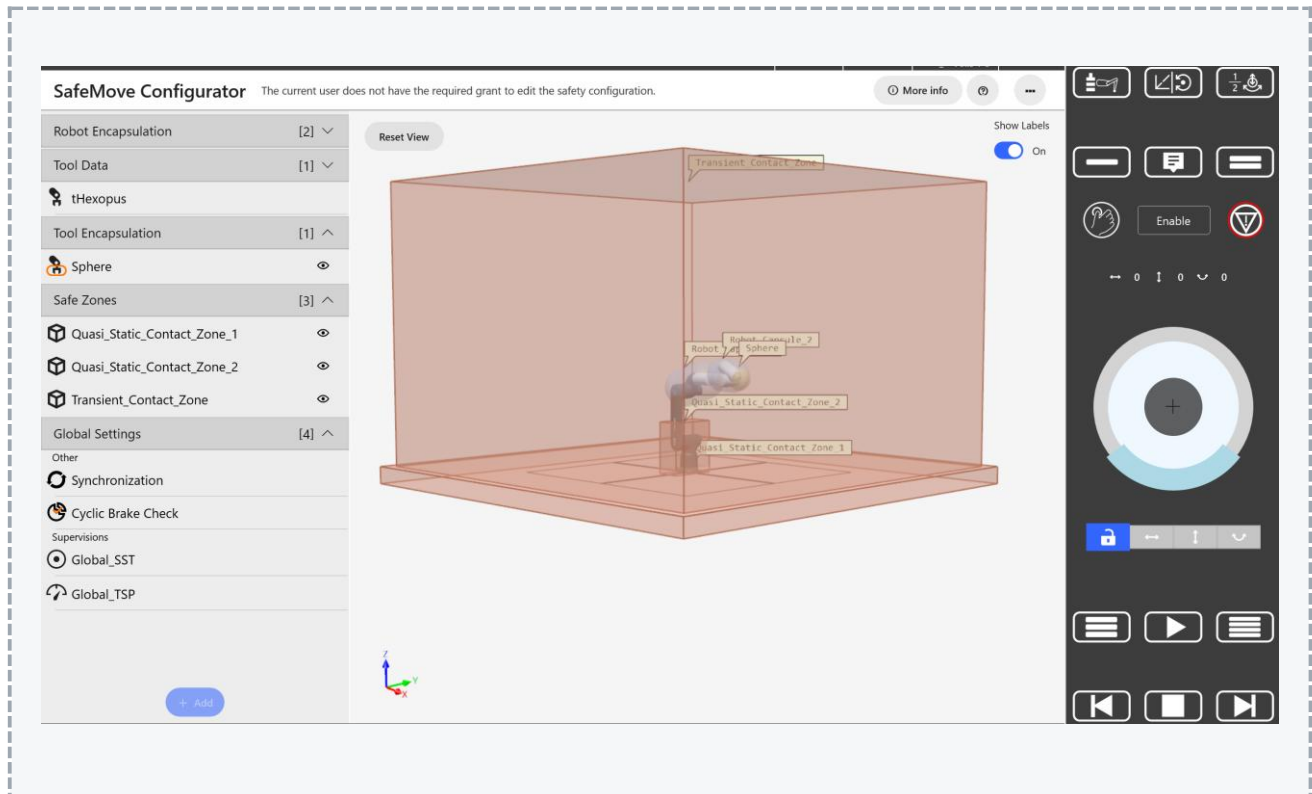


Figure SM-04 — SafeMove Configurator

6 Post-installation commissioning

6.1 Mandatory verification

Check	Acceptance criterion	Result
Controller start	Controller reaches normal RobotWare operation with no unresolved installation errors.	Pass / Fail / N.A.
Installed product	Expected AuraSensae/Hexopus product and version are present in the controller system.	Pass / Fail / N.A.
FlexPendant application	Hexopus application is visible and opens correctly.	Pass / Fail / N.A.
RAPID	Required product modules are loaded; no module or task error is present.	Pass / Fail / N.A.
I/O	Required devices and signals are present, correctly mapped, and free of communication/configuration faults.	Pass / Fail / N.A.
Safety	Safety configuration and safety I/O have been reviewed, validated, and accepted under the cell safety plan.	Pass / Fail / N.A.
RobotStudio library	Hexopus is available in User Library and one component can be imported into the station.	Pass / Fail / N.A.
Tool attachment	Graphical component is attached to the correct flange with approved position and orientation.	Pass / Fail / N.A.
Tool and payload data	Controller tooldata/load data match the commissioned physical tooling and approved engineering values.	Pass / Fail / N.A.
Functional test	Approved manual-mode test completed; no unexpected motion, I/O response, or user-interface behavior.	Pass / Fail / N.A.

6.2 Return to service

1. Close all installation and configuration dialogs and release write access.
2. Save the final RobotStudio station and store the approved controller backup.
3. Record the installed versions and test results in the site change log.
4. Remove installation media and secure the released .rspak and installation package according to the site software-control process.
5. Return the robot to automatic production only after the responsible person has accepted every applicable commissioning check.

7 Troubleshooting

Symptom	Likely cause	Corrective action
Hexopus is not listed in Import Library	The .rspak was not imported for the current Windows user, RobotStudio has not refreshed the library, or the package library resources are incomplete.	Close and reopen RobotStudio. Confirm the expected Suite version is installed in Add-Ins. Reinstall the released .rspak. If the package was rebuilt, verify that RobotStudio/LibraryComponents contains LibraryTypes.xml and tHexopus.rslib before generating the .rspak.
Hexopus is absent from Modify Installation	The distribution package is not installed, the product version is incompatible, or the product list has not refreshed.	Install the released .rspak, restart RobotStudio, reconnect to the controller, and confirm that the target RobotWare version satisfies package dependencies.
Modify Installation reports dependency or license errors	Required RobotWare version, controller feature, or license is missing.	Do not override the message. Compare the target system with the released product requirements and install only on a supported configuration.
The FlexPendant cannot find the USB package	Only part of the package was copied, the folder structure was changed, or the USB device is not recognized.	Copy the complete installation package folder without renaming internal files. Reinsert the USB device and verify that it is visible in RobotWare Installation Utilities.
Offline installation stops because licenses are missing	The installation package was created from virtual licenses that do not match the target controller.	Rebuild the virtual controller/package using the target controller configuration and valid exported licenses where permitted.
Hexopus application is not visible after restart	The controller-side product was not included or the restart/installation did not complete successfully.	Review the Event Log and installed product list. Confirm the correct product version, then repeat Modify Installation if necessary.
Hexopus is visible in RobotStudio but not attached	The library component was imported but not attached to the robot flange.	Attach the single Hexopus component to the correct GoFa flange and verify the local transform. Save the station.
The station contains duplicate Hexopus tools	The library was imported more than once.	Delete the extra station components. Keep one approved component attached to the intended mechanical unit.

ESCALATION DATA

When contacting support, provide the .rspak filename and checksum, RobotStudio version, controller name and ID, RobotWare version, package/installation log, relevant Event Log messages, and screenshots showing the exact point of failure. Remove credentials and sensitive network data before sharing files.