



UNIVERSAL ROBOTS

User Guide

Robot Tools

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1. Boot Robot Using Robot Tools

Description

Robot Tools is a pre-boot tool for managing robot images and the data on the robot.

Robot Tools can only use a USB drive to manage robot images. Other types of storage media are not supported.

You can use Robot Tools to install a robot image, create or restore a clone of the robot disk, or erase the robot disk.



WARNING

Install, restore, and erase operations overwrite data on the robot disk. Back up any data that you want to keep before you continue.



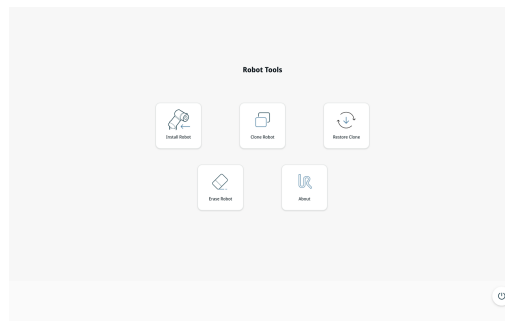
NOTICE

Robot images are only supported on USB drives of 32 GB and larger.

Start the robot with Robot Tools

To start Robot Tools:

1. Turn off the robot.
2. Insert the USB drive into a USB port on the Control Box.
3. Turn on the robot.
4. If Robot Tools does not start automatically, connect a keyboard, restart the robot, and press **F10** while the Control Box starts. Select the USB drive from the boot menu.
5. Wait until the **Robot Tools** main screen appears.



Robot Tools Main Screen



Main screen

- **Install Robot:** Install a compatible robot image from the USB drive. Installing an image overwrites the robot disk.
- **Clone Robot:** Save a clone of the robot disk to the USB drive.
- **Restore Robot:** Restore a clone from the USB drive to the robot disk. Restoring a clone overwrites the robot disk.
- **Erase Robot:** Erase all data from the robot disk.
- **About:** View the Robot Tools version and the Open Source Software Licenses.



NOTICE

Do not remove the USB drive or turn off the robot while an operation is in progress.

1.1. Install Robot

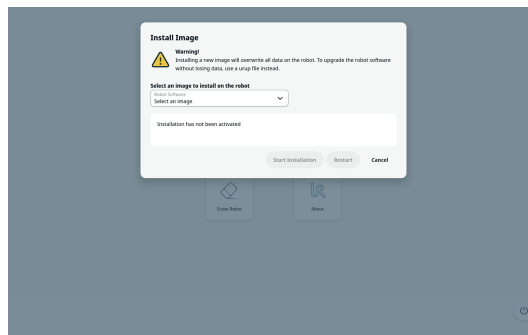
Description

Use **Install Robot** to install a compatible robot image from the data partition of the USB drive. The Robot Tools selects the latest compatible image by default when more than one image is available.



WARNING

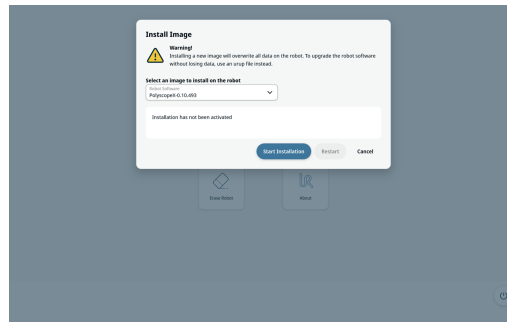
Installing a new image overwrites all data on the robot.



Install Image Screen

Install Image

1. On the main screen, select **Install Robot**.
2. Under **Select an image to install on the robot**, open the drop-down menu and select the image that you want to install.
3. Select **Start Installation**.
4. If prompted, confirm that you want to overwrite the robot disk.
5. Wait until the installation is complete. You cannot cancel the installation after it starts.
6. When the installation is complete, remove the USB drive.
7. Select **Restart**.

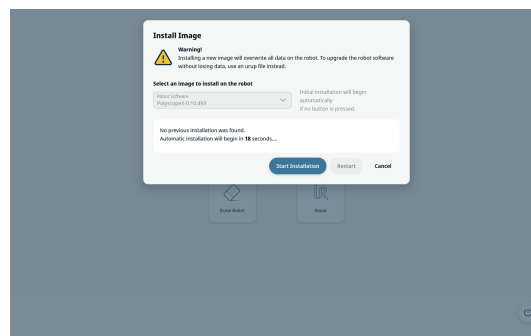


Successful Installation Screen

Before the installation starts, select **Cancel** to return to the main screen without changing the robot disk.

Automatic installation

If the robot disk is blank and the USB drive contains one compatible robot image, the installation screen can open automatically and display a countdown. Select **Start Installation** to start immediately, or select **Cancel** to stop the countdown and return to the main screen.



Automatic Robot Installation

For a comprehensive guide to using Robot Tools in PolyScope X, see [Robot Tools](#).



1.2. Clone Robot

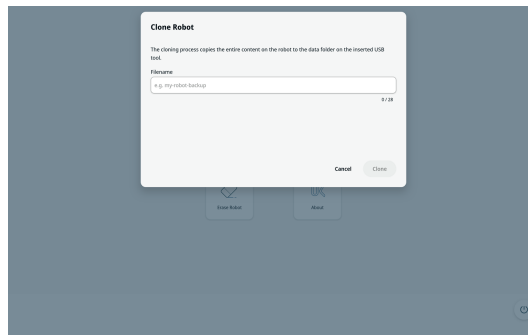
Description

Use **Clone Robot** to create a clone image of the robot disk on the data partition of the USB drive. You can use the clone image to restore the robot to the saved state.



NOTICE

Make sure that the USB drive has enough free space for the clone. Do not remove the USB drive while cloning is in progress.



Clone Robot Screen

Clone Robot

1. On the main screen, select **Clone Robot**.
2. In the **Filename** field, enter a name for the clone image.
3. Select **Clone**.
4. If a clone image with the same filename already exists, confirm that you want to overwrite it.
5. Wait until the clone operation is complete. You cannot cancel the operation after it starts.
6. When the operation is complete, return to the main screen.

Before cloning starts, select **Cancel** to return to the main screen without creating a clone.



NOTICE

A robot clone is intended for backup and recovery. Do not use this function to manage software across a fleet of robots.

1.3. Restore Robot

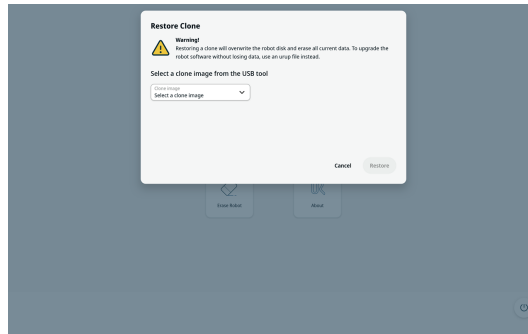
Description

Use **Restore Robot** to restore a clone image from the USB drive to the robot disk.



WARNING

Restoring a clone overwrites the robot disk. All current data on the robot will be lost.



Restore Clone Screen

Restore Robot

1. On the main screen, select **Restore Robot**.
2. Under **Select a clone image from the USB drive**, open the clone-image drop-down menu.
3. Select the clone image that you want to restore.
4. Select **Restore**.
5. If prompted, confirm that you want to overwrite the robot disk.
6. Wait until the restore operation is complete. You cannot cancel the operation after it starts.
7. When the operation is complete, remove the USB drive and restart the robot.

Before restoring starts, select **Cancel** to return to the main screen without changing the robot disk.



1.4. Erase Robot

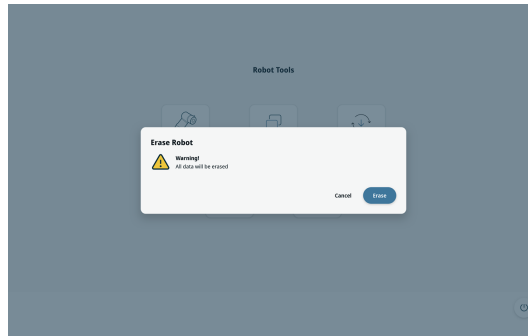
Description

Use **Erase Robot** to erase all data from the robot disk. Erase the disk when decommissioning the Control Box or before returning a compatible Control Box to removable-storage operation.



WARNING

All data will be erased. The robot cannot start from the robot disk after the erase operation.



Erase Robot Screen

Erase Robot

1. On the main screen, select **Erase Robot**.
2. Under **Chose type of format**, select one of the following options:
 - **Fast**: Removes the existing disk layout quickly.
 - **Secure**: Uses the secure erase function supported by the eMMC device.
3. Select **Erase**.
4. If prompted, confirm that you want to erase the robot disk.
5. Wait until the erase operation is complete. You cannot cancel the operation after it starts.
6. When the operation is complete, return to the main screen or turn off the robot.

Before erasing starts, select **Cancel** to return to the main screen without changing the robot disk.



NOTICE

If you start the robot again with the USB drive inserted while the robot disk is blank, automatic installation may start.