

Important Information on the External Activation Device safety concept

Dear Research Panda User,

With the update to our latest software version, please expect some changes in the usage. This document shall help you by explaining the new improved handling.

Having worked on the industrial CE-out-of-the-box solutions we also ameliorated the user interface and usage of user stop within our safety concept.

Our safety concept is designed in these **three steps**:

- Teach panda what to do
- Step back to watch and check the programmed task
- Let panda execute the programmed task automatically.

To ensure that this concept is also reflected in our user interface, we integrated the use of an additional activation device (External Activation Device). The intention of this device is that after having programmed the robot, one can take a step back use the activation device and test the programmed task before running it on full automization mode. In case the user made a mistake in the programming the robot will stop automatically when the activation device is pushed. The use of such devices is common in industrial automization and improves the safety of people working with robots.

This means that when using the latest software version, you will experience a change in the usage of the robot.

Please do not worry, you are still able to use the user stop that you received with the research version, you just need to adjust to the new the usage.

For further explanation of the improvements, please see below.

1) Difference in using the user stop

Due to safety requirements in place in industry settings, versions 2.0.0

or higher include a difference concerning the use of the external

activation button. While with versions prior to 2.0.0 the hand guiding of the robot and task execution could only be possible by switching the state of the user stop / activation device to "up", versions higher than 2.0.0 will require turning the activation button to state "down" to enable hand guiding, and to state "up" to enable task execution. This means that when using the research apps, the button needs to be pressed "down" to teach the robot and pulled "up" to let the task run automatically. When using the FCI the robot will execute the programmed task. For this the user stop needs to be pulled "up".

Usage is illustrated in the APPENDIX of this document.

2) User Manual

The user manual from the research version which you have received upon arrival of the robot is still applicable for your robot. Please see the instruction above under 1) as an addition to this user manual. Please note that with the latest software update, it is possible to access a user manual for the industrial version by clicking the correspondent icon that you can find on the user interface "Desk". It will prompt you with the version of the Manual dedicated to the Industry version. However, the Research User must still only refer to the Manual related to the Research version.

3) No downgrade

As it is the case with most systems, once upgraded, the system cannot be downgraded to previous versions thereafter.

With the latest software version you will be able to install industry apps on your robot. Please note that your robot will not convert to a full industry version and thus will NOT be allowed for commercial use i.e. within the production. The purchasing contract is still applicable.

Please also understand that our industrial CE-out-of-the-box-solutions may run on the upgraded version now for research purposes but our CE checklists will not be applicable for these upgraded robots

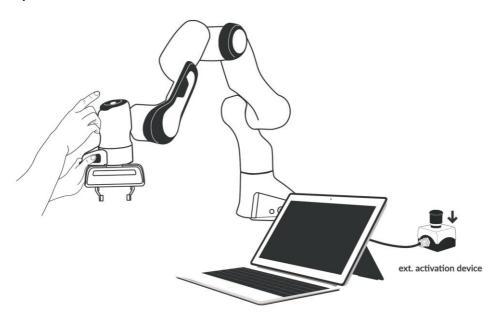
Thanks a lot for your time and attention as you went through this document. Should anything remain unclear, please do not hesitate to contact us for further clarification at **support@franka.de** and we will be happy to support you.

Yours sincerely, Franka Emika's Sales team

APPENDIX

This Appendix describes how the teaching, testing and automatic execution phases concerning the use of Panda over the "Desk" interface are affected if the **Research User** upgrades to software versions 2.0.0 or higher.

1.)



Your **External Activation Device** shown in the figure above will have to be connected to the port X4 of the base of the Arm. The activation device will have to be switched to the state "**down**" **to enable hand guiding** (teaching).



To test a program, before automatic execution is launched, the user needs to change the **External Activation Device** to the "**up**" position. Afterwards the user steps back and remains outside the safety area to run the test. Please make sure that the External Activation Device is positioned outside of the safety area and in immediate reach of the user.



Once the user has verified that the robotic task is ready to be executed automatically, the **External Activation Device** remains in the "**up**" position (see figure above). By doing so, the user acknowledges that no one is or can enter the safety area around Panda during automatic execution. Please make sure that the External Activation Device is positioned outside of the safety area and in immediate reach of the user.