

GPNTUG

GoPoint for i.MX Applications Processors User Guide

Rev. 14.0 — 8 January 2026

User guide

Document information

Information	Content
Keywords	GPNTUG, GoPoint, Linux demo, i.MX demos, MPU, ML, machine learning, multimedia, ELE, GoPoint for i.MX Applications Processors, i.MX Applications Processors
Abstract	This document explains how to run GoPoint for i.MX Applications Processors and details about the applications included in the launcher.



1 Introduction

GoPoint for i.MX Applications Processors is a user-friendly application that allows the user to launch preselected demonstrations included in the NXP provided Linux Board Support Package (BSP).

GoPoint for i.MX Applications Processors is for users who are interested in showcasing the various features and capabilities of NXP provided SoCs. The demos included in this application are meant to be easy to run for users of all skill levels, making complex use cases accessible to anyone. Users need some knowledge when setting up equipment on Evaluation Kits (EVKs), such as changing Device Tree Blob (DTB) files.

This user guide is intended for end users of GoPoint for i.MX Applications Processors. This document explains how to run GoPoint for i.MX Applications Processors and covers the applications included in the launcher.

2 Release information

GoPoint for i.MX Applications Processors is compatible with the i.MX family Linux BSP available at [IMXLINUX](#). GoPoint for i.MX Applications Processors and its included applications that are packaged alongside with it are included in binary demo files displayed on IMXLINUX.

Alternatively, users can include the GoPoint for i.MX Applications Processors and its applications, by including 'packagegroup-imx-gopoint' in their Yocto images. This package is included in the 'imx-full-image' package when the 'fsl-imx-xwayland' distribution is selected on supported devices.

This document only covers information that is related to the Linux lf-6.12.49_2.2.0 release. For other releases, see the respective user guide for that release.

2.1 Supported devices

GoPoint for i.MX Applications Processors is supported on the devices listed in [Table 1](#).

Table 1. Supported devices

i.MX 7 family	i.MX 8 family	i.MX 9 family
i.MX 7ULP EVK	i.MX 8MQ EVK	i.MX 93 EVK
	i.MX 8MM EVK	i.MX 95 EVK
	i.MX 8MN EVK	i.MX 91 EVK
	i.MX 8QXP C0 MEK	
	i.MX 8QM MEK	
	i.MX 8MP EVK	
	i.MX 8ULP EVK	

2.2 GoPoint applications release package

[Table 2](#) and [Table 3](#) list packages included in the GoPoint for i.MX Applications Processors release package. The specific applications vary between releases.

Table 2. GoPoint framework

Name	Branch
nxp-demo-experience	lf-6.12.49_2.2.0
nxp-demo-experience-assets	lf-6.12.49_2.2.0
meta-nxp-demo-experience	walnascar-6.12.49-2.2.0

Table 3. Application package dependencies

Name	Branch/Commit
nxp-demo-experience-demos-list	2300256578ed1834f2f38618771b09143ef9a851
imx-ebike-vit	721652143fd4d6fbc43c49617031b263e762c2d4
imx-ele-demo	2134feef0c7a89b02664c97b5083c6a47094b85
nxp-nnstreamer-examples	062ebd146f6519c437db6516f257f20d63dda1dd
imx-smart-fitness	5ac9a93c6c651e97278dff0e2b979b3a6e16475
smart-kitchen	1f42aceae2e79f4b5c7cd29c169cc3ebd1fce78a
imx-video-to-texture	ee77a45391994177934ce19b15c554be866a49ff
imx-voiceui	f2ff8703685b511371c3475f8c52c73dc1d21f32
imx-voiceplayer	ab1304afa7fa4ec4f839bbe0b9c06dadb2a21d25
gtec-demo-framework	e8840f58de1ebd0233391a663d15c4ca8a45d35c
imx-gpu-viv	Closed source
imx-camera-rotation	e8d7f8bf0629a1558d3e9853c20683f5d59afabd

2.3 Applications provided by application packages

For documentation on each application, follow the link related to the application of interest.

Table 4. nxp-demo-experience-demos-list

Demo	Supported SoCs
2Way Video Streaming	i.MX 8MM, i.MX 8MP
Audio Record	i.MX 7ULP
Audio Play	i.MX 7ULP
Camera using VPU	i.MX 8MP
CAN Demo	i.MX 8MP, i.MX 93
DMS	i.MX 8MP, i.MX 93, i.MX 95
Face Recognition	i.MX 8MP
i.MX Gesture Recognition	i.MX 8MP, i.MX 93
i.MX 91 Snoring Detection	i.MX 91
ISP Control	i.MX 8MP
LP Baby Cry Detection	i.MX 93
LP KWS Detection	i.MX 93
ML Gateway	i.MX 8MM, i.MX 8MP, i.MX 93, i.MX 95

Table 4. nxp-demo-experience-demos-list...continued

Demo	Supported SoCs
ML Benchmark	i.MX 8MP, i.MX 93, i.MX 95
Multi Cameras Preview	i.MX 8MP
Selfie Segmenter	i.MX 8MP, i.MX 93
TSN 802.1Qbv	i.MX 8MM, i.MX 8MP
Video Dump	i.MX 8MP
Video Test	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 93

Table 5. imx-ebike-vit

Demo	Supported SoCs
E-Bike VIT	i.MX 8MM, i.MX 8MP, i.MX 93

Table 6. imx-ele-demo

Demo	Supported SoCs
EdgeLock Secure Enclave	i.MX 93

Table 7. nxp-nnstreamer-examples

Demo	Supported SoCs
Face Detection	i.MX 8MP, i.MX 93, i.MX 95
Classification/Detection	i.MX 8MP, i.MX 93, i.MX 95
Dual Classification	i.MX 8MP, i.MX 93, i.MX 95
Emotion Detection	i.MX 8MP, i.MX 93, i.MX 95
Image Classification	i.MX 8MM, i.MX 8MP, i.MX 8QM MEK, i.MX 93, i.MX 95
Object Detection	i.MX 8MM, i.MX 8MP, i.MX 8QM MEK, i.MX 93, i.MX 95
Pose/Face	i.MX 8MP, i.MX 93
Pose Estimation	i.MX 8MM, i.MX 8MP, i.MX 8QM MEK, i.MX 93, i.MX 95
Semantic Segmentation	i.MX 8MP, i.MX 93, i.MX 95

Table 8. imx-smart-fitness

Demo	Supported SoCs
i.MX Smart Fitness	i.MX 8MP, i.MX 93

Table 9. smart-kitchen

Demo	Supported SoCs
Smart Kitchen	i.MX 8MM, i.MX 8MP, i.MX 93

Table 10. imx-video-to-texture

Demo	Supported SoCs
Video To Texture Demo	i.MX 8QM MEK, i.MX 95

Table 11. imx-voiceui

Demo	Supported SoCs
i.MX Voice Player	i.MX 8MM, i.MX 8MP

Table 12. imx-voiceplayer

Demo	Supported SoCs
i.MX Multimedia Player	i.MX 8MM, i.MX 8MP, i.MX 93

Table 13. gtec-demo-framework

Demo	Supported SoCs
Bloom	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 95
Blur	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
EightLayerBlend	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
FractalShader	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
LineBuilder101	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
Mapping	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
Mapping Refraction	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
Model Loader	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
S03_Transform	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
S04_Projection	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95
S06_Texturing	i.MX 7ULP, i.MX 8MQ, i.MX 8MM, i.MX 8MN, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP, i.MX 95

Table 14. imx-gpu-viv

Demo	Supported SoCs
Cover Flow	i.MX 7ULP, i.MX 8ULP
Vivante Launcher	i.MX 7ULP, i.MX 8QXP C0 MEK, i.MX 8QM MEK, i.MX 8MP, i.MX 8ULP
Vivante Tutorial	i.MX 7ULP, i.MX 8ULP

Table 15. imx-camera-rotation

Demo	Supported SoCs
Video Rotation	i.MX 8MM, i.MX 8MP, i.MX 8ULP, i.MX 95

2.4 Changes in this release

The changes in the If-6.12.49_2.2.0 release are as follows:

- Added Video Rotation application
- DMS and ML Gateway updated for i.MX 95
- Added LibCam support for NNStreamer Demos
- Bug fixes

2.5 Known issues and workarounds

This release has the following issues and workarounds:

- MIPI-CSI cameras do not work by default. For more information on how to start, see 'chapter 7.3.8' in *i.MX Linux User's Guide* (document [IMXLUG](#)).
- The Face Recognition demo with some cameras can encounter issues.
- Pose detection with the AR0144 camera does not work.
- MIPI cameras with Multi-Camera Preview and Camera using VPU do not work.

3 Launching applications

Applications that are included in GoPoint for i.MX Applications Processors can be launched via various interfaces.

3.1 Graphical user interface

On boards where GoPoint for i.MX Applications Processors is available, an NXP logo is displayed on the top left-hand corner of the screen. Users can start the demo launcher by clicking this logo.

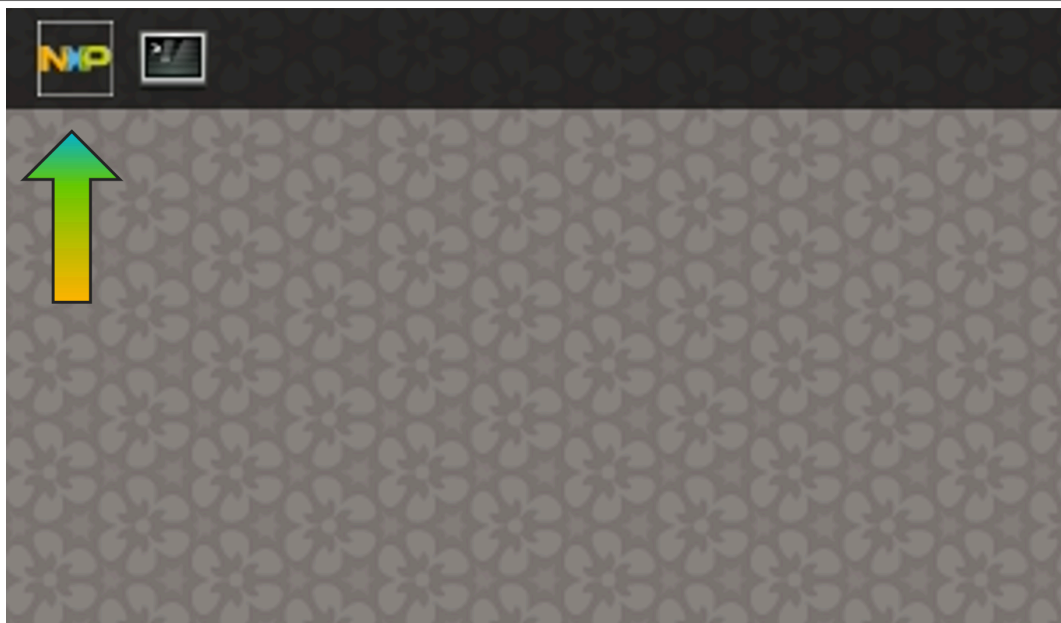


Figure 1. GoPoint for i.MX Applications Processors logo

After opening the program, users can launch demos using the following options shown in [Figure 2](#):

1. To filter the list, select the icon on the left to expand the filter menu. From this menu, users can select a category or subcategory that filters the demos displayed in the launcher.
2. A scrollable list of all the demos supported on that EVK appears in this area with any filters applied. Clicking a demo in the launcher brings up information about the demo.
3. This area displays the names, categories, and description of the demos.
4. Clicking **Launch Demo** launches the currently selected demo. A demo can then be force-quit by clicking the **Stop current demo** button in the launcher (appears once a demo is started).

Note: Only one demo can be launched at a time.

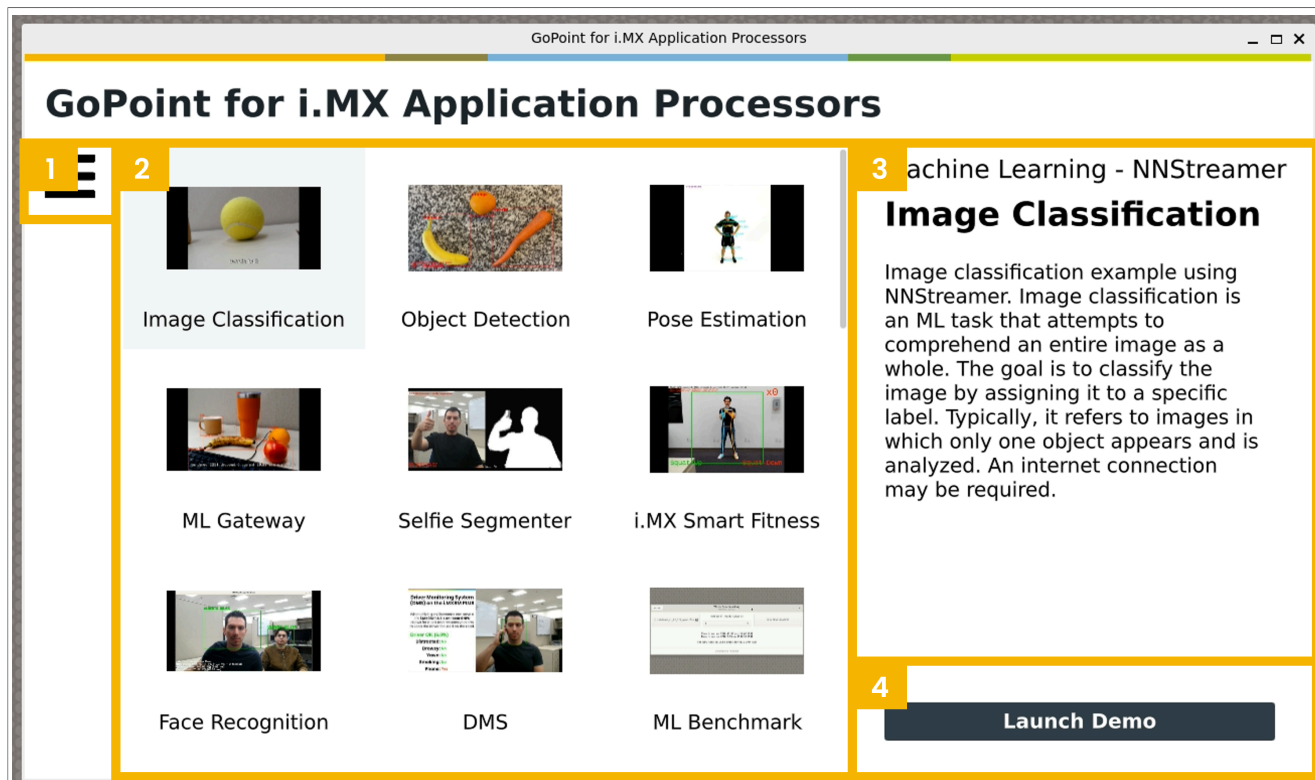


Figure 2. GoPoint for i.MX Applications Processors

3.2 Text user interface

Demos can also be launched from the command line through log-in into the board remotely or using the onboard serial debug console. Remember that most demos still require a display to run successfully.

Note: If prompted for a login, the default user name is "root" and no password is required.

To start the text user interface (TUI), type the following command into the command line:

```
# gopoint tui
```

The interface can be navigated using the following keyboard inputs:

- **Up and down arrow keys:** Select a demo from the list on the left
- **Enter key:** Runs the selected demo
- **Q key or Ctrl+C keys:** Quit the interface
- **H key:** Opens the help menu

Demos can be closed by closing the demo onscreen or pressing the "Ctrl" and "C" keys at the same time.

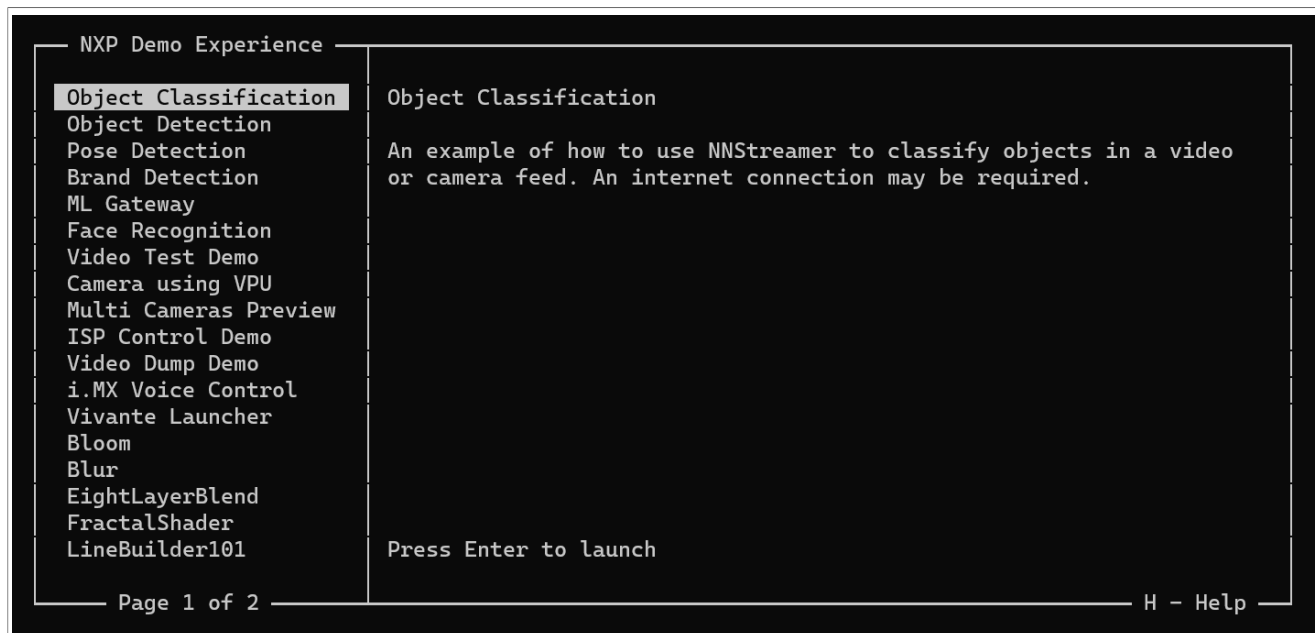


Figure 3. Text user interface

4 References

[Table 16](#) lists the references used to supplement this document.

Table 16. References

Reference	Link/how to obtain
8-microphone array board	8MIC-RPI-MX8
Embedded Linux for i.MX Applications Processors	IMXLINUX
<i>i.MX Yocto Project User Guide</i> <i>i.MX Yocto Project User's Guide</i> (document UG10164)	https://www.nxp.com/doc/UG10164
<i>i.MX Linux User's Guide</i> (document UG10163)	https://www.nxp.com/docs/en/user-guide/UG10163.pdf
i.MX 8MIC-RPI-MX8 Board Quick Start Guide	https://www.nxp.com/webapp/Download?colCode=IMX-8MIC-QSG
<i>i.MX 8M Plus Gateway for Machine Learning Inference Acceleration</i> (document AN13650)	https://www.nxp.com/webapp/sps/download/preDownload.jsp?render=true
<i>TSN 802.1Qbv Demonstration using i.MX 8M Plus</i> (document AN13995)	http://www.nxp.com/doc/AN13995

5 Revision history

[Table 17](#) summarizes the revisions to this document.

Table 17. Revision history

Document ID	Release date	Description
GPNTUG v.14.0	8 January 2026	- Updated the document for the If-6.12.49_2.2.0 release - Updated Section 2.1 "Supported devices" - Updated Section 2.2 "GoPoint applications release package"

Table 17. Revision history...continued

Document ID	Release date	Description
		- Added "imx-camera-rotation" to Table 3 "Application package dependencies" - Updated Table 4 "nxp-demo-experience-demos-list" - Added Table 15 "imx-camera-rotation" - Updated Section 2.4 "Changes in this release" - Updated Section 2.5 "Known issues and workarounds"
GPNTUG v.13.0	30 September 2025	- Updated the document for the 6.12.34_2.1.0 release - Updated Table 1 - Updated Section 2.2 "GoPoint applications release package" - Updated Table 4 - Updated Section 2.4 "Changes in this release" - Updated Section 2.5 "Known issues and workarounds"
GPNTUG v.12.0	01 July 2025	- Updated the document for the 6.12.20_2.0.0 release - Updated Section 2.2 "GoPoint applications release package" - Updated Table 4 and Table 7 in Section 2.3 "Applications provided by application packages" - Updated Section 2.4 "Changes in this release"
GPNTUG v.11.0	11 April 2025	- Updated Section 1 "Introduction" - Added Section 2 "Release information" - Updated Section 3 "Launching applications" - Updated Section 4 "References"
GPNTUG v.10.0	30 September 2024	- Added i.MX E-Bike VIT - Updated References
GPNTUG v.9.0	8 July 2024	Added Security
GPNTUG v.8.0	11 April 2024	- Updated NNStreamer demos - Updated Object classification - Updated Object detection - Removed section 'Brand detection' - Updated Machine learning gateway - Updated Driver monitoring system demo - Updated Selfie segmenter - Added i.MX smart fitness - Added Low-power machine learning demo
GPNTUG v.7.0	15 December 2023	- Updated for the 6.1.55_2.2.0 release - Rename from NXP Demo Experience to GoPoint for i.MX Applications Processors - Added 2Way video streaming
GPNTUG v.6.0	30 October 2023	Updated for the 6.1.36_2.1.0 release
GPNTUG v.5.0	22 August 2023	Added i.MX multimedia player
GPNTUG v.4.0	28 June 2023	Added TSN 802.1 Qbv demo
GPNTUG v.3.0	07 December 2022	Updated for 5.15.71 release
GPNTUG v.2.0	16 September 2022	Updated for 5.15.52 release
GPNTUG v.1.0	24 June 2022	Initial release

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