



X-LINUX-SPN1 software package for OpenSTLinux



| Application | Python APIs | | UI Application | |
|-------------------------|-------------------------------------|--|----------------|--|
| MiddleWare | libgpiod | | | |
| Hardware Abstraction | Linux Kernel | | | |
| | OpenSTLinux BSP | | | |
| Hardware | X-NUCLEO-HHM15A1 / X-NUCLEO-HHM12A1 | | | |
| | STM32MP Development Board | | | |
| | | | | |

| Product summary | | | | |
|---|-------------------------------|--|--|--|
| X-LINUX-SPN1 software package for OpenSTLinux | X-LINUX-SPN1 | | | |
| Discovery kit with STM32MP157F MPU | STM32MP157F- DK2 | | | |
| Dual brush DC motor driver expansion board based on STSPIN840 for STM32 Nucleo | X-NUCLEO- IHM15A1 | | | |
| Low voltage dual brush DC motor driver expansion board based on STSPIN240 for STM32 Nucleo | X-NUCLEO- IHM12A1 | | | |
| | Point of Sales | | | |
| Applications | Robotic and Motorized Toys | | | |
| | Brushed DC Motor | | | |
| | Therapy Equipment | | | |

Features

- Linux application
- Python APIs for STSPIN motor drivers
- GTK-based UI application to control motors
- Runs on STM32MP157F-DK2
- Development environment: OpenSTLinux

Description

X-LINUX-SPN1 is an OpenSTLinux expansion software package that provides software support and APIs for the STSPIN family of motor drivers for the STM32MP

The software package provides a GTK-based UI app which extends the demo application that ships with MPU discovery boards.

Python APIs are provided to enable developers to create motor control applications.

Currently supports the X-NUCLEO-IHM15A1 and X-NUCLEO-IHM12A1 dual brush DC motor driver expansion boards based on STSPIN840 and STSPIN240, respectively, and other motor control boards will be supported in future releases.



1 Ecosystem description

Application
Frameworks

OP-TEE

Linux Kernel

U-Boot

U-Boot

U-Boot

yocto

Figure 1. Ecosystem block diagram

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Revision history

Table 1. Document revision history

| Date | Version | Changes |
|-------------|---------|------------------|
| 15-Nov-2023 | 1 | Initial release. |

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