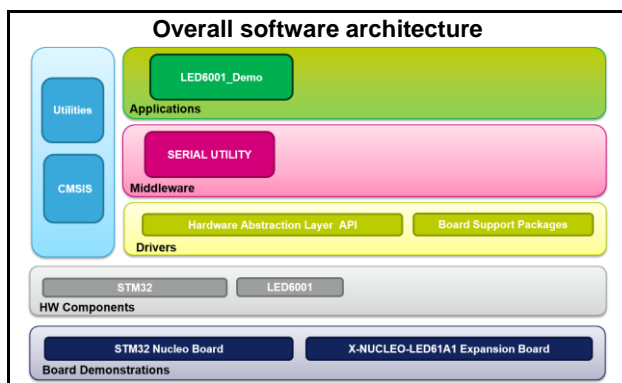


## DC-DC LED driver software expansion for STM32Cube

Data brief

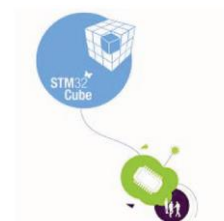


### Description

X-CUBE-LED1 is an expansion software package for STM32Cube. The software runs on the STM32 microcontroller and includes drivers for controlling a string of high-brightness LEDs. The expansion is built on STM32Cube software technology to ease portability across different STM32 microcontrollers. The software comes with sample implementations of drivers running on the X-NUCLEO-LED61A1 plugged on a NUCLEO-F401RE or NUCLEO-L053R8.

### Features

- Complete middleware package to build applications using LED driver (LED6001) and hardware expansion board (X-NUCLEO-LED61A1) for STM32 Nucleo.
- Example demo status information on PC serial utilities like HyperTerminal.
- Sample implementation available on X-NUCLEO-LED61A1 board plugged to a NUCLEO-F401RE or NUCLEO-L053R8 board.
- Easy portability across different MCU families thanks to STM32Cube.
- Free, user-friendly license terms.



**What is STM32Cube?**

STM32Cube™ represents the STMicroelectronics initiative to make developers' lives easier by reducing development effort, time and cost. STM32Cube covers the STM32 portfolio.

STM32Cube version 1.x includes:

- STM32CubeMX, a graphical software configuration tool that allows the generation of C initialization code using graphical wizards.
- A comprehensive embedded software platform specific to each series (such as the STM32CubeF4 for the STM32F4 series), which includes:
  - the STM32Cube HAL embedded abstraction-layer software, ensuring maximized portability across the STM32 portfolio
  - a consistent set of middleware components such as RTOS, USB, TCP/IP and graphics
  - all embedded software utilities with a full set of examples

**How does this software complement STM32Cube?**

The proposed software is based on the STM32CubeHAL hardware abstraction layer for the STM32 microcontroller. The package extends STM32Cube by providing a board support package (BSP) for the X-NUCLEO-LED61A1 expansion board and serial communication connectivity with PCs (demo status information can be viewed on serial utilities like HyperTerminal). The drivers abstract low-level hardware details so middleware components can function without requiring this information.

## Revision history

Table 1: Document revision history

Date	Version	Changes
11-Dec-2015	1	Initial release.

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