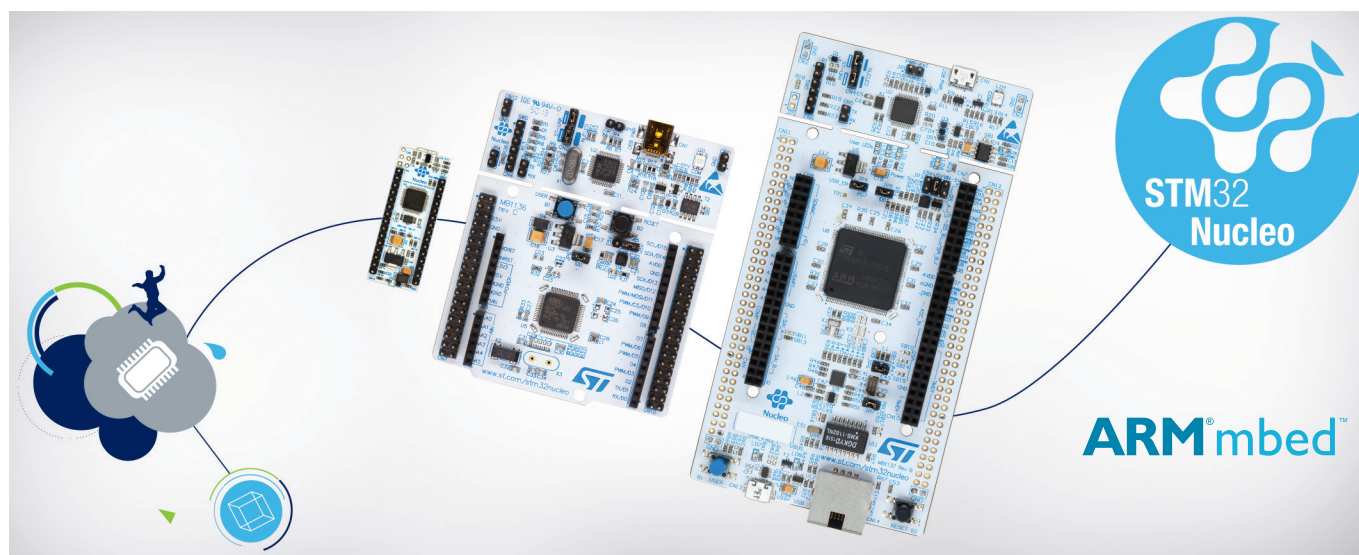


# STM32 Nucleo boards



## Open STM32 development platform for flexible prototyping

The highly affordable STM32 Nucleo boards allow anyone to try out new ideas and to quickly create prototypes with any STM32 MCU.

STM32 Nucleo boards can easily be extended with a large number of specialized application hardware add-ons (Arduino Uno Rev3 and ST morpho connectors on Nucleo-144 and Nucleo-64, ST Zio connectors on Nucleo-144, Arduino Nano connectors on Nucleo-32).

The STM32 Nucleo boards integrate an ST-Link debugger/programmer, so there is no need for a separate probe.

A comprehensive STM32 software HAL library together with various software examples are provided with STM32 Nucleo boards, and seamlessly work with a wide range of development environments including IAR EWARM, Keil MDK-ARM, mbed and GCC/LLVM-based IDEs.

All STM32 Nucleo users have free access to the mbed online resources (compiler, C/C++ SDK, and developer community) at [www.mbed.org](http://www.mbed.org) allowing to build a complete application in only a few minutes.



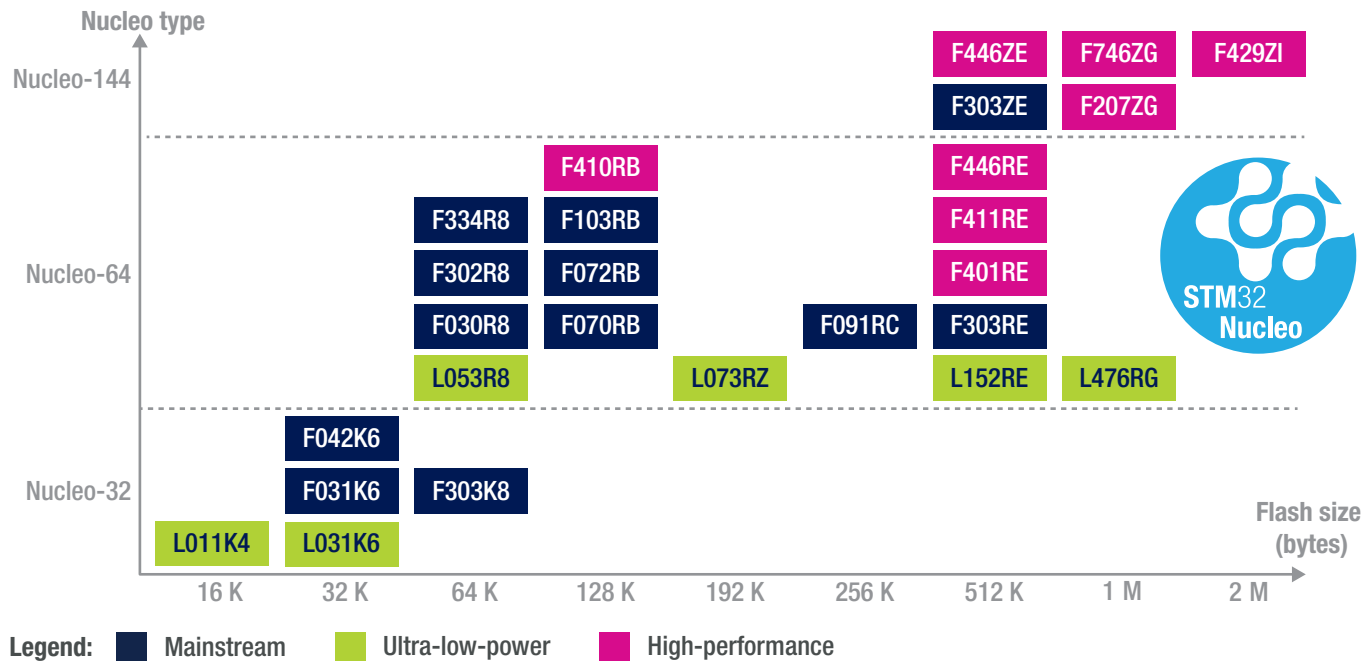
### KEY FEATURES

- Includes one STM32 microcontroller in 32-pin, 64-pin or 144-pin package
- On-board ST-LINK/V2-1 debugger/programmer:
  - Virtual com port
  - Mass storage
- Wide extension capabilities with specialized shields:
  - Arduino Uno rev3 connectors on Nucleo-64 and Nucleo-144,
  - Access to a wider range of peripherals through Zio connectors on Nucleo-144
  - Access to all MCU pins through ST morpho connectors on Nucleo-64 and Nucleo-144,
  - Arduino Nano connectors on Nucleo-32
- Direct access to mbed online resources
- Supported by IAR, Keil, ARM mbed online, and GCC/LLVM-based IDEs (AC6, Atollic, Coocox, Emprog, Keolabs, Rowley, Segger, Tasking...)

## STM32 NUCLEO BOARD PORTFOLIO

Unified offering with scalable performance/features/power mix

[www.st.com/stm32nucleo](http://www.st.com/stm32nucleo)



## STM32 NUCLEO EXPANSION BOARDS

Unlimited possibilities

[www.st.com/x-nucleo](http://www.st.com/x-nucleo)

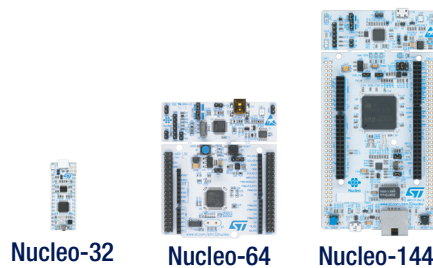
STM32 Nucleo development boards can easily be expanded through a variety of add-on boards. These expansion boards open the door to any type of application leveraging the appropriate mix of performance/peripherals/power within the comprehensive STM32 family.

Each expansion board integrates the necessary components to implement specialized features of a chosen application, and comes with complementary STM32 software modules.



### Hardware

STM32 Nucleo development boards



Nucleo-32 Nucleo-64 Nucleo-144

[www.st.com/stm32nucleo](http://www.st.com/stm32nucleo)

### Expansion

STM32 Nucleo expansion boards from ST and third parties



[www.st.com/x-nucleo](http://www.st.com/x-nucleo)

### LoRa networking



SX1276MB1xAS  
(by ST partner: Semtech)



### Software

STM32Cube software library

STM32Cube expansion software

[www.st.com/stm32cube](http://www.st.com/stm32cube)

Multiple IDE support



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Order code: FLSTM32NUCLEO0116

For more information on ST products and solutions, visit [www.st.com/stm32nucleo](http://www.st.com/stm32nucleo)