Get ready for the largest IoT development ecosystem

4000 possible combinations of STM32/STM8 MCUs and SX127x radios

THE BRAIN
Choose from basic, ultra-low-power or high-performance with STM8 (8-bit) or STM32 (32-bit) MCUs. Pick from a portfolio that offers from 2 Kbytes up to 2 Mbytes of Flash memory with 14 up to 216 pins with tiny form factor packages, and a rich set of analog and connectivity peripherals.

COMMUNICATION
Choose the appropriate LoRa radio which best matches your application needs. Add short range connectivity with NFC and Bluetooth.

SECURITY
STSAFE-A is a turnkey solution for the IoT. Optimized for small platforms and providing state-of-the-art security relying on CC EAL5+ hardware, the STSAFE-A allows easy integration using libraries compatible with standard MCUs.

SENSING
Add sensing capabilities to your application with environmental, motion and proximity sensors.

www.st.com/stm32-lrwan
STM32 RELEASING YOUR CREATIVITY

High-performance Mainstream Ultra-low-power

Cortex-M0/M0+  Cortex-M3  Cortex-M4  Cortex-M33  Cortex-M7

STM32 F2  STM32 F1  STM32 F0  STM32 F3  STM32 F0

STM32 F7  STM32 H7  STM32 L4  STM32 L4+  STM32 L4

Wireless

STM32 L0  STM32 L1  STM32 L4  STM32 L4+  STM32 L4

STM32 F0  STM32 G0  STM32 F4  STM32 F3

STM32WB

Dual core (Cortex-M0/M0+)

MORE THAN 50 PRODUCT LINES

With 14 product series, the STM32 portfolio offers an extraordinary variety of options including Arm® Cortex®-M cores (M0, M0+, M3, M4, and M7), giving developers flexibility to find the perfect match for their application. Particular attention is paid to make it easy to migrate from one device to another. The compatibility of binaries combined with the similar pinout assignment, proliferation of hardware IPs and higher-level programming languages greatly facilitates the work of developers.

HARDWARE TOOLS AND EMBEDDED SOFTWARE

Up to three dedicated HW tools to play and develop with STM32™ around LoRa® technology

STM32 NUCLEO PACK
P/N: P-NUCLEO-LRWAN1
(ST and Semtech)

DISCOVERY KIT
P/N: B-L07Z2-LRWAN1
(ST and Murata®)

EXPANSION BOARD
P/N: I-NUCLEO-LRWAN1
(ST and USI®)

A LoRaWAN stack (I-CUBE-LRWAN) is now available from www.st.com/i-cube-lrwan

STM32 OPEN DEVELOPMENT ENVIRONMENT (STM32 ODE)

Additional ST expansion boards available

X-NUCLEO-IKS01A2
Motion and environmental sensors

X-NUCLEO-NCF01A1
M24SR-based NFC tag expansion board

X-NUCLEO-IDB05A1
BlueNRG-based Bluetooth Smart expansion board

SOFTWARE TOOL

STM32 CubeMX enables fast development thanks to its MCU clock configurator, power consumption calculator and code generation tools.