



STM32 development boards

Helping you accelerate your design



STM32 hardware evaluation tools

Easy prototyping, accurate evaluation, and board design references



STM32 Nucleo boards

www.st.com/stm32nucleo

Flexible prototyping

70 references



Discovery kits

www.st.com/stm32discovery

Key feature prototyping

40 references

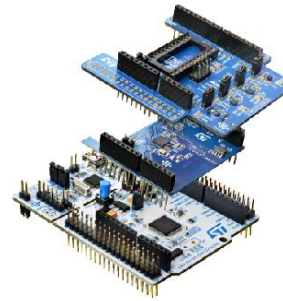


Evaluation boards

www.st.com/stm32evaltools

Full feature evaluation

25 references



Expansion boards

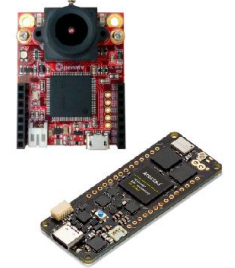
www.st.com/x-nucleo

Add-on functionalities

100+ references



Accessories



Partner boards

From full evaluation to open hardware

20+ references



Move & actuate



Connect



Power drive

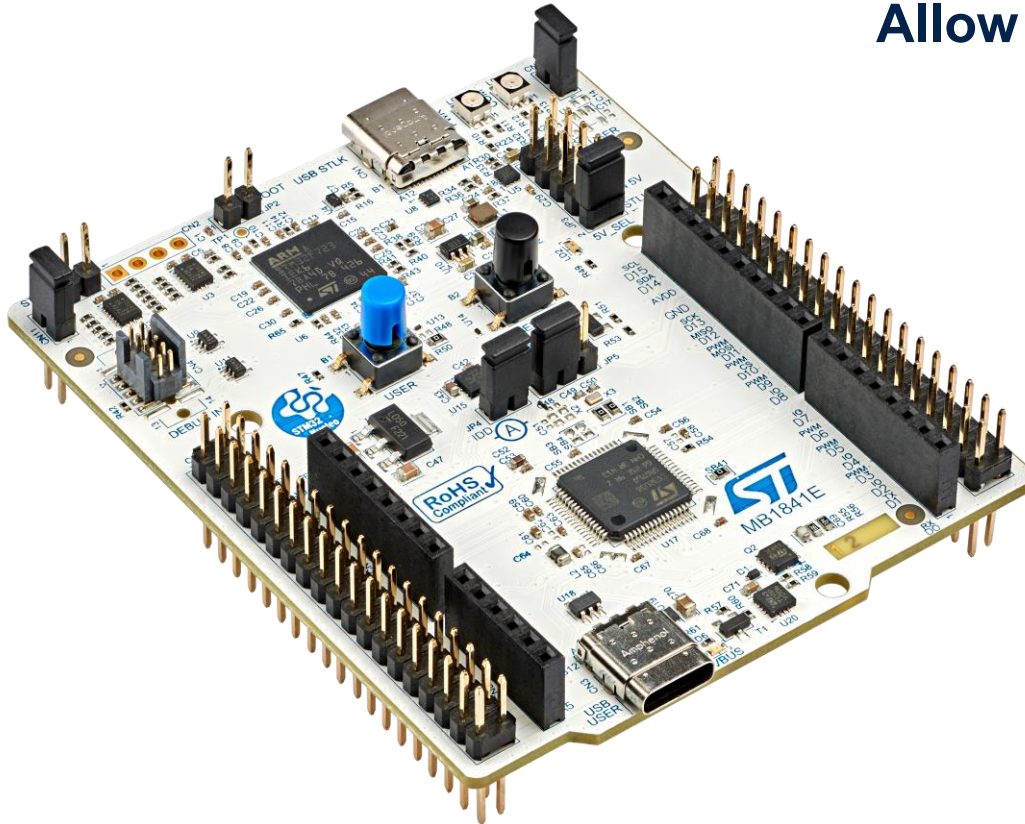


Sense



STM32 Nucleo key assets

Allow STM32 communities to **explore the potential of the STM32 portfolio** for their design

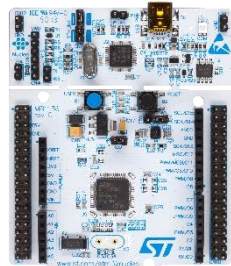



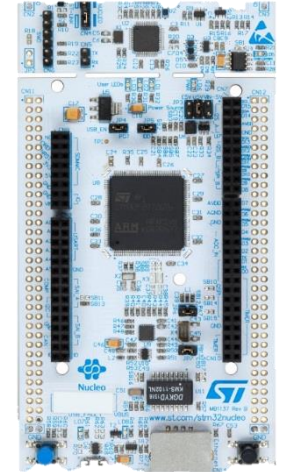
Flexible prototyping

Unlimited expansion capabilities

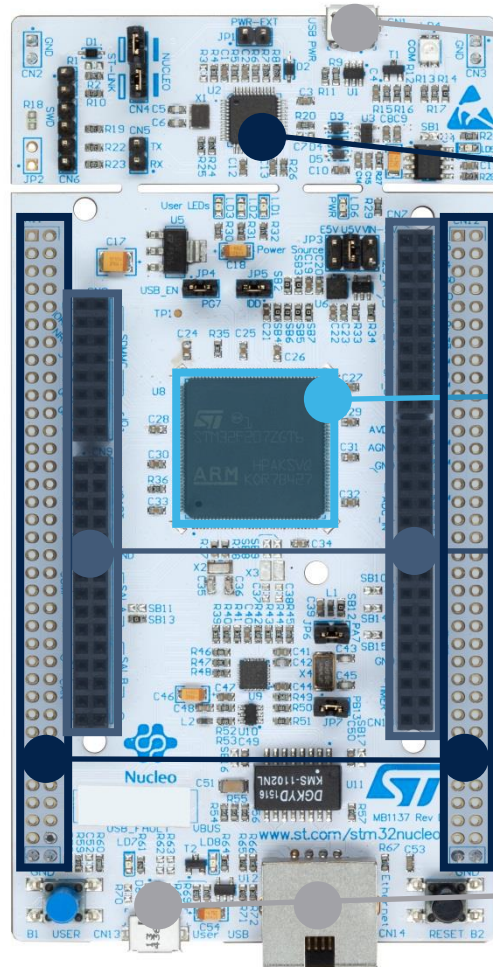


STM32 Nucleo form-factors available

Ethernet	***		
USB	***		
ST Zio (Uno extended)	***		
Arduino® Uno ST morpho	**		**
Arduino® Nano	*		
Nucleo-32 32-pin MCU		Nucleo-64 64-pin MCU	
		Nucleo-144 144-pin MCU	



STM32 Nucleo-144 overview



Flexible board power supply:
through USB or external source

Integrated STLINK:
drag & drop device flash programming

One STM32 MCU flavor with 144 pins

Arduino® Uno & ST Zio connectors:
easy access to add-ons

ST morpho extension pins:
direct access to all MCU I/Os

Ethernet & USB OTG (optional)



Expanding design possibilities with a broad offer



STM32L4 Nucleo-32
NUCLEO-L412KB

Lower power

STM32L412
ULPMark-CP 447
ULPMark-PP 167



STM32H7 Nucleo-144
NUCLEO-H745ZI-Q

High performance

STM32H745 dual-core
CoreMark 3223

A broad range of
features

Performance

Peripherals

Power

Price

Discover them all



Sense



Power



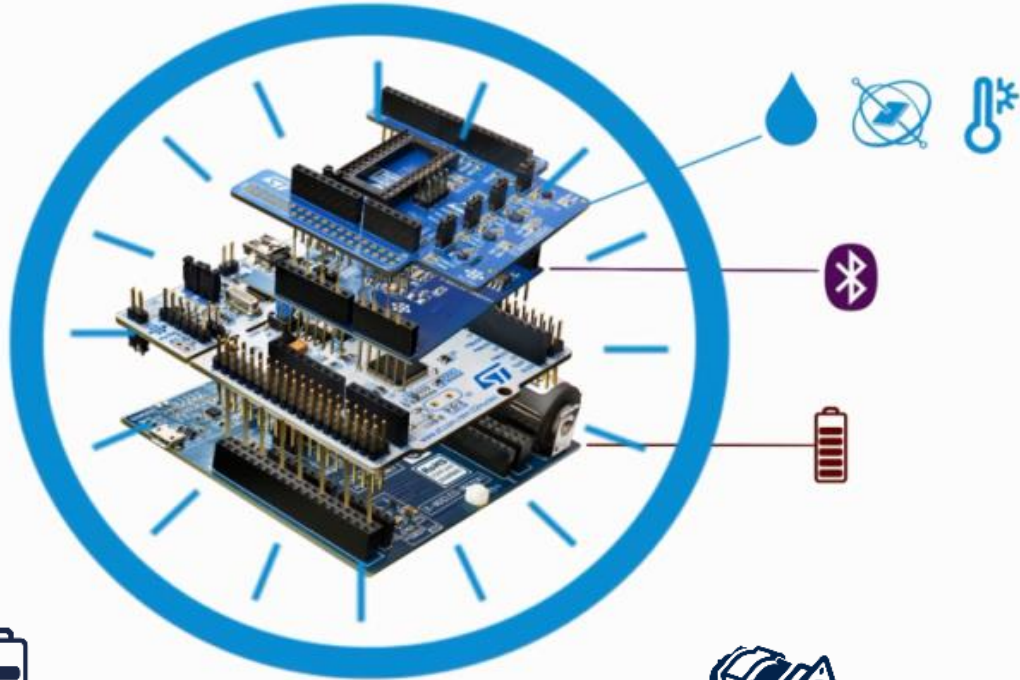
Interact



Connect



Move



Association with shields

Specialized functionality add-on

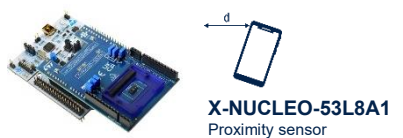
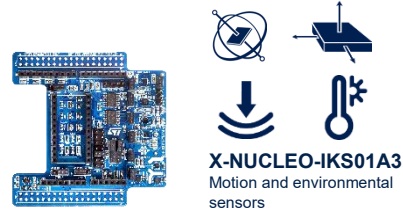
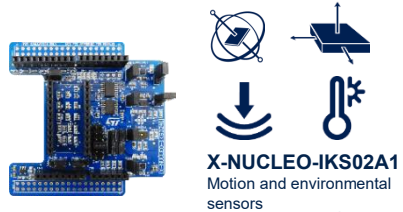
Smooth integration with STM32Cube
software library

Multiple IDEs
(STM32CubeIDE, IAR, Arm...)

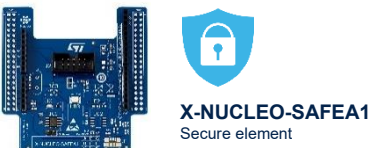


Nucleo expansion boards from ST

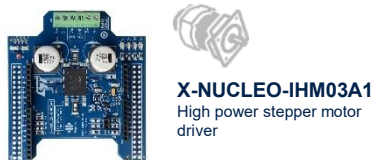
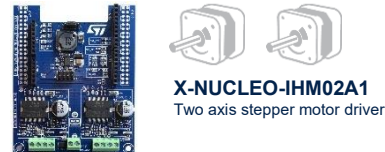
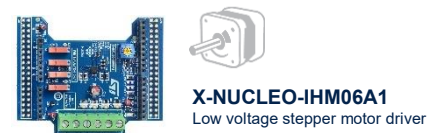
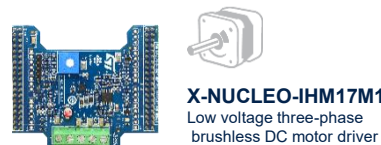
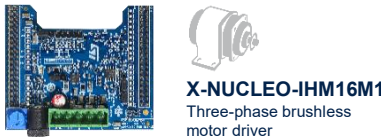
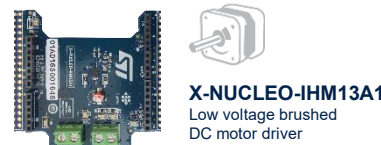
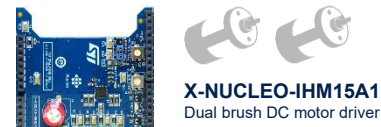
Sensors and analog



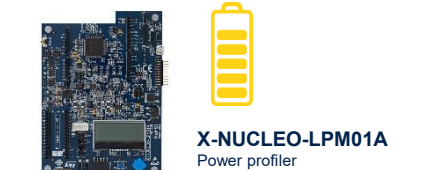
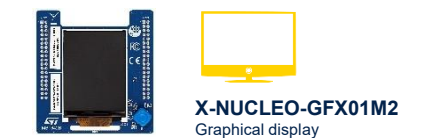
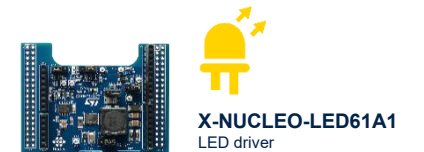
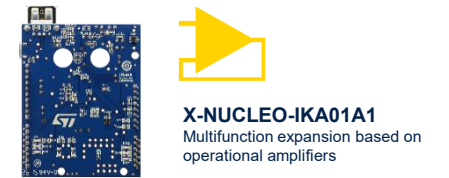
Communication



Motor drive



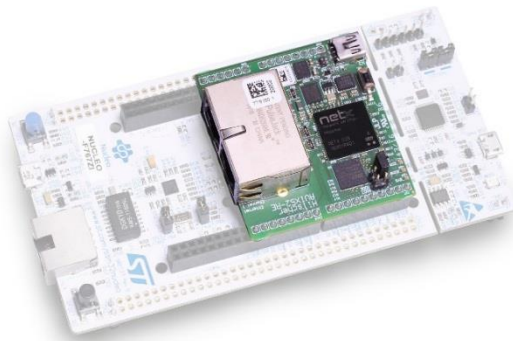
Translate



More references at:
www.st.com/x-nucleo



Nucleo expansion boards from third parties



I-NUCLEO-NETX
By Hilscher

Industrial Ethernet protocols
PROFINET®, Ethernet/IP™, EtherCAT,
POWERLINK, Sercos®, and Modbus®

Nucleo boards for wireless communication



NUCLEO-WB55RG
By ST

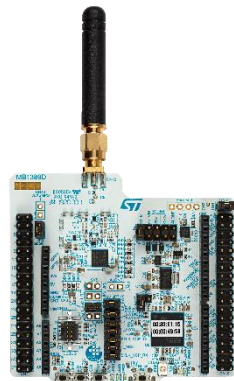


Multiprotocol RF transceiver
Bluetooth™ 5.3 and IEEE 802.15.4-2011
compliant

LoRaWAN® node & gateway
LRWAN3 frequency < 500 MHz,
LoRaWAN®-compliant protocol stack



P-NUCLEO-LRWAN3
By ST and RisingHF



NUCLEO-WL55JC
By ST



Long Range wireless node
Frequency range 150-960 MHz
LoRa, (G)FSK, (G)MSK, BPSK modulations
LoRaWAN®, Sigfox-compliant protocol stack

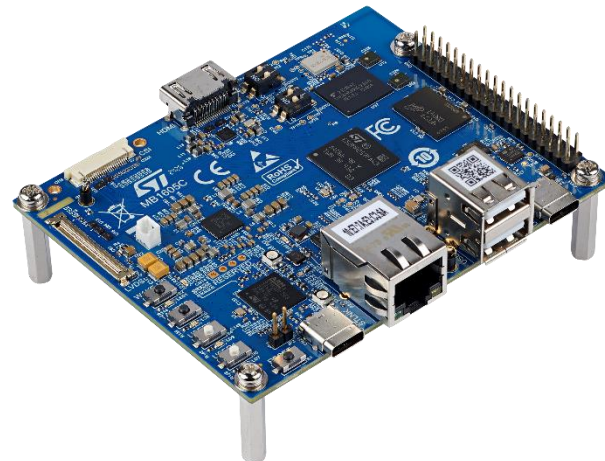
Our latest discovery kits with next-gen STM32



STM32U083C-DK



STM32H7S78-DK



STM32MP257F-DK



STM32N6570-DK

Discovery kit portfolio 1/6

	Part number	MCU	USB	Audio	Display	Connectivity	Expansion	STLINK
STM32C0	STM32C0116-DK	STM32C011						V2
STM32F0	STM32F0DISCOVERY	STM32F051					Proprietary	V2
	32F072BDISCOVERY	STM32F072	x				Proprietary	V2
STM32F1	STM32VLDISCOVERY	STM32F100					Proprietary	V2
	STM32F3DISCOVERY	STM32F303	x				Proprietary	V2
STM32F3	32F3348DISCOVERY	STM32F334					Proprietary	V2-1
	STM32G0316-DISCO	STM32G031						V2-1
STM32G0	STM32G071B-DISCO	STM32G071	Type-C		OLED 128x64		Proprietary	V2-1
	B-G431B-ESC1	STM32G431						V2-1
STM32G4	B-G474E-DPOW1	STM32G474	Type-C	x			Proprietary	V2-1



More information at:
www.st.com/stm32discovery

Discovery kit portfolio 2/6

	Part number	MCU	USB	Audio	Display	Connectivity	Expansion	STLINK
STM32U0	STM32U083C-DK	STM32U083	Type-C		4x24 segment LCD		Arduino® Uno, Click, Proprietary	V2-1
STM32L0	32L0538DISCOVERY	STM32L053	x		E-paper 172x72		Proprietary	V2-1
STM32L1	32L152CDISCOVERY	STM32L152			LCD		Proprietary	V2
	B-L475E-IOT01A	STM32L475	OTG	Digital mics		Bluetooth® LE, sub-GHz, NFC, Wi-Fi	Arduino® Uno, Pmod	V2-1
STM32L4	32L496GDISCOVERY	STM32L496	OTG	x	Color LCD 240x240	Add-on (optional)	Arduino® Uno, Pmod, STMod+, MikroBus, Grove	V2-1
	STM32L4P5G-DK	STM32L4P5	OTG	x	Color LCD 240x240	Add-on (optional)	Arduino® Uno, STMod+, MikroBus, Grove	V3
STM32L4+	32L4R9IDISCOVERY	STM32L4R9	OTG	x	Color AMOLED 390x390	Add-on (optional)	Arduino® Uno, Pmod, STMod+, MikroBus, Grove	V2-1
	B-L4S5I-IOT01A	STM32L4S5	OTG	Digital mics		Bluetooth® LE, NFC, Wi-Fi	Arduino® Uno, Pmod	V2-1
STM32L5	STM32L562E-DK	STM32L562	Type-C	x	Color LCD 240x240	Bluetooth® LE	Arduino® Uno, Pmod, STMod+, MikroBus, Grove	V3
STM32U5	B-U585-IOT02A	STM32U585	Type-C	x		Bluetooth® LE, Wi-Fi	Arduino® Uno, Pmod, STMod+, MikroBus, Grove	V3
	STM32U5G9J-DK2	STM32U5G9	Type-C		800x400 Color LCD 5"		Arduino®	V3



More information at:
www.st.com/stm32discovery

Discovery kit portfolio 3/6

STM32F4

Part number	MCU	USB	Audio	Display	Connectivity	Expansion	STLINK
<u>STM32F4DISCOVERY</u>	STM32F407	OTG	x			Proprietary	V2
<u>32F411EDISCOVERY</u>	STM32F411	OTG	x			Proprietary	V2
<u>32F412GDISCOVERY</u>	STM32F412	OTG	x	Color LCD 240x240	Add-on (optional)	Arduino® Uno	V2-1
<u>32F413HDISCOVERY</u>	STM32F413	OTG	x	Color LCD 240x240	Wi-Fi	Arduino® Uno	V2-1
<u>32F429IDISCOVERY</u>	STM32F429	OTG		Color LCD QVGA	Add-on (optional)	Arduino® Uno	V2
<u>32F469IDISCOVERY</u>	STM32F469	OTG	x	Color LCD 800x480	Add-on (optional)	Arduino® Uno	V2-1
<u>32F723EDISCOVERY</u>	STM32F723	OTG HS	x	Color LCD 240x240	Add-on (optional)	Arduino® Uno, Pmod, STMod+, MikroBus, Grove	V2-1
<u>32F746GDISCOVERY</u>	STM32F746	OTG HS	x	Color LCD 480x272	Ethernet	Arduino® Uno	V2-1
<u>STM32F7508-DK</u>	STM32F750	OTG HS	x	Color LCD 480x272	Ethernet	Arduino® Uno	V2-1
<u>32F769IDISCOVERY</u>	STM32F769	OTG HS	x	Color LCD 800x480	Ethernet	Arduino® Uno	V2-1

STM32F7



More information at:
www.st.com/stm32discovery

Discovery kit portfolio 4/6

Part number	MCU	USB	Audio	Display	Connectivity	Expansion	STLINK
<u>STM32H7B3I-DK</u>	STM32H7B3	OTG	x	Color LCD 480x272	Add-on (optional)	Arduino® Uno, STMod+, Mikrobus, Grove	V3
<u>STM32H735G-DK</u>	STM32H735	OTG	x	Color LCD 480x272	Ethernet	Arduino® Uno, Pmod, STMod+, Mikrobus, Grove	V3
<u>STM32H745I-DISCO</u>	STM32H745	OTG	x	Color LCD 480x272	Ethernet	Arduino® Uno, STMod+, Mikrobus, Grove	V3
<u>STM32H747I-DISCO</u>	STM32H747	OTG HS	x	Color LCD 800x480	Ethernet	Arduino® Uno, Pmod, STMod+, Mikrobus, Grove	V3
<u>STM32H750B-DK</u>	STM32H750	OTG	x	Color LCD 480x272	Ethernet	Arduino® Uno, STMod+, Mikrobus, Grove	V3
<u>STM32H7S78-DK</u>	STM32H7S7	Type-C	x	5" LCD w/ capacitive touch	Ethernet	Arduino® Uno, Camera, Audio Jack, STMod+, PMOD	V3
<u>STM32H573I-DK</u>	STM32H573	Type-C	x	TFT LCD 1.54"	Ethernet	Arduino® Uno, STMod+, Pmod™	V3
<u>STM32N6570-DK</u>	STM32N657	Type-C	x	5" LCD with capacitive touch	Ethernet	Arduino® Uno, Camera, Audio Jack, STMod+	V3

STM32H7

STM32H5

STM32N6



More information at:
www.st.com/stm32discovery

Discovery kit portfolio 5/6

STM32Wx

Part number	MCU	USB	Audio	Display	Connectivity	Expansion	STLINK
<u>STM32WB5MM-DK</u>	STM32WB5MM	OTG	x	OLED 128x64	Bluetooth® LE v5.2, Zigbee, Thread	Arduino® Uno, STMod+, Mikrobus, Grove	V2-1
<u>STM32WBA55G-DK1</u>	STM32WBA55CG	Type-C	x	OLED	Bluetooth® LE v5.4, Zigbee	Arduino® Uno, STMod+, Grove, Battery, Jack In & Out	V3
<u>STM32WBA65I-DK1</u>	STM32WBA65RI	Type-C	x	OLED	Bluetooth® LE	Arduino® Uno, STMod+, Grove, Battery, Jack In & Out	V3

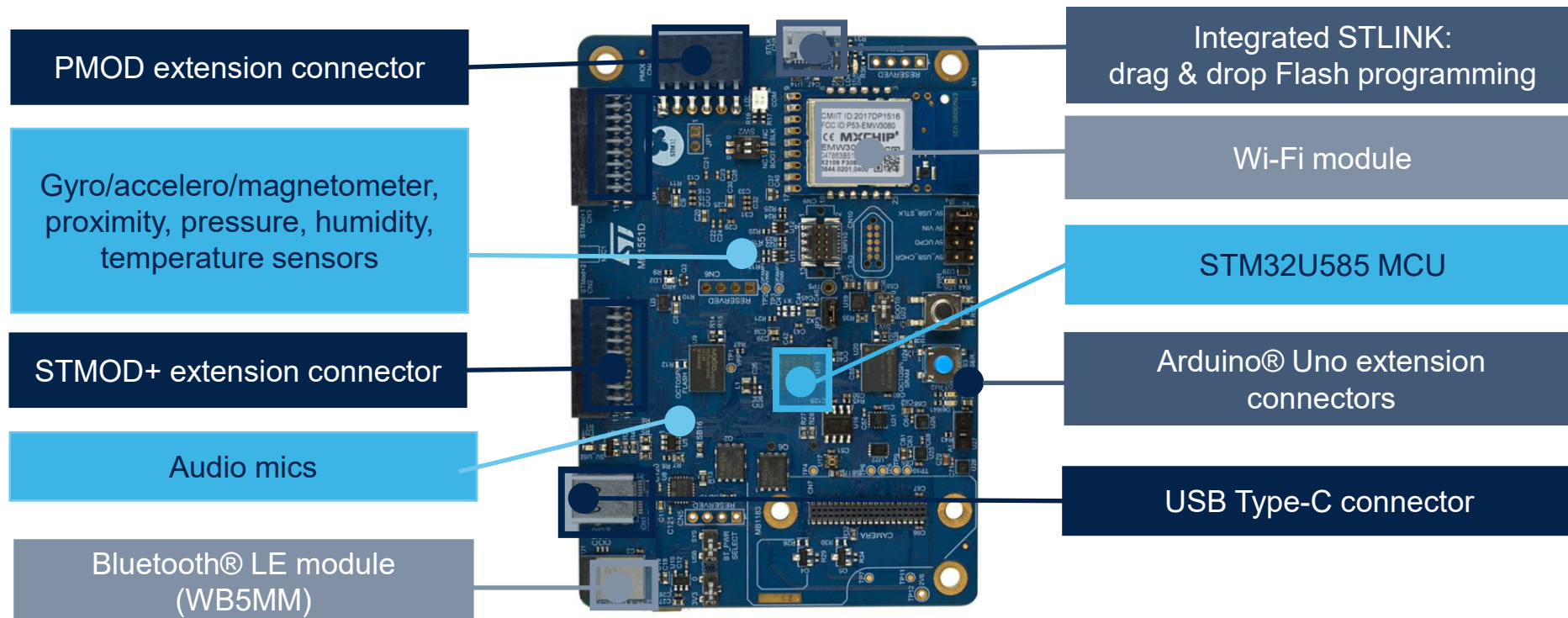
Discovery kit portfolio 6/6



Part number	MCU	Description	Key features	Expansion	STLINK
<u>B-L072Z-LRWAN1</u>	STM32L072	All-in-one low-power wireless node	LoRa, Sigfox, WMBus AAA-battery operation	Arduino® Uno, ST morpho	V2-1
<u>B-L4S5I-IOT01A</u>	STM32L4S5	All-in-one IoT node with low-power connectivity & multiway sensing	Bluetooth® LE, NFC, Wi-Fi, Sensors (digital microphone, 9-axis navigation, pressure, humidity, temperature, proximity / gesture detection)	Arduino® Uno, Pmod	V2-1
<u>B-U585I-IOT02A</u>	STM32U585	All-in-one IoT node with low-power connectivity & multiway sensing	Bluetooth® LE, Wi-Fi, Sensors (digital microphone, 9-axis navigation, pressure, humidity, temperature, proximity/gesture detection)	Arduino® Uno, Pmod, STMod+, MikroBus, Grove	V3
<u>STM32MP257F-DK</u>	STM32MP257F	MPU Discovery kit	Gbit Ethernet, USB3 Type C, Dual USB2 HS Type A	MicroSD, MIPI CSI2, HDMI, LVDS	V3

STM32U5 discovery IoT node overview

Multi-link communication, multiway sensing



B-U585I-IOT02A

STM32U5 discovery IoT node

User-friendly cloud access

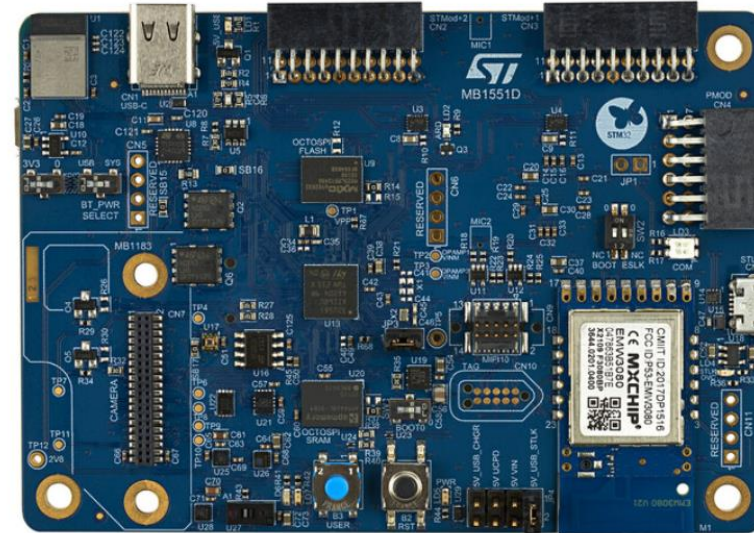
Direct connection to cloud services

Low-power communication

Environmental awareness: humidity, pressure, temp

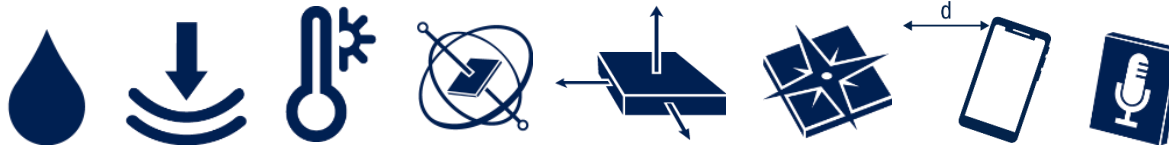
Detection hub: motion, proximity, audio

Direct support of communities



aws

Azure



Cloud STM32Cube
Expansion Packages

Our latest evaluation boards with next-gen STM32



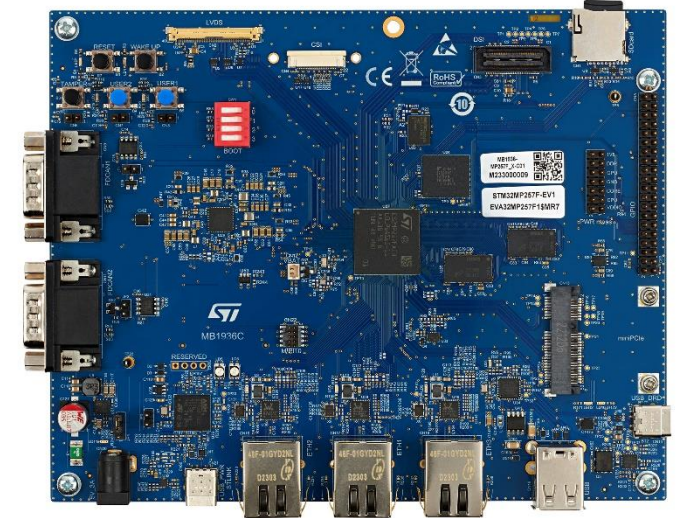
STM32G081B-EVAL



STM32H757I-EVAL



STM32U575I-EV



STM32MP257F-EV1

Evaluation board portfolio

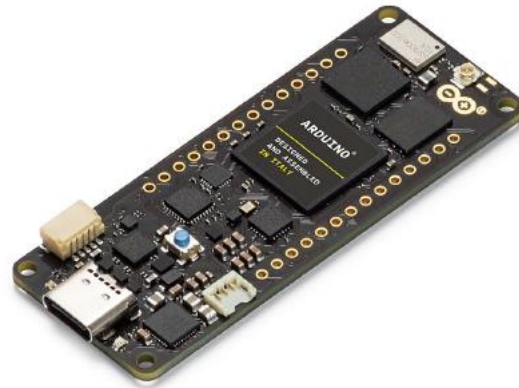
Mainstream		Ultra-low-power		High-performance		Microprocessors	
Part number	MCU	Part number	MCU	Part number	MCU	Part number	MPU
STM32072B-EVAL	STM32F072	STM32L073Z-EVAL	STM32L073	STM3220G-EVAL	STM32F207	STM32MP257F-EV1	STM32MP257
STM3210E-EVAL	STM32F103	STM32L476G-EVAL	STM32L476	STM32429I-EVAL	STM32F429	STM32MP157D-EV1	STM32MP157
STM32303E-EVAL	STM32F303	STM32L4R9I-EVAL	STM32L4R9	STM32F769I-EVAL	STM32F769		
STM32373C-EVAL	STM32F373	STM32L552E-EV	STM32L552	STM32H7B3I-EVAL	STM32H7B3		
STM32G081B-EVAL	STM32G081	STM32U575I-EV	STM32U575	STM32H743I-EVAL	STM32H743		
STM32G0C1E-EV	STM32G0C1			STM32H757I-EVAL	STM32H757		
STM32G474E-EVAL	STM32G474						

STM32 boards contribute to communities

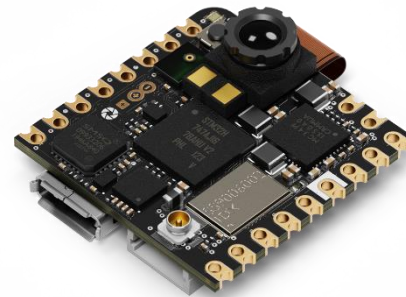


59
Boards
([full list here](#))
([libraries](#))

30
Expansion
Boards
([libraries](#))



Portenta H7



Nicla Vision

Our technology starts with You



Find out more at www.st.com/stm32

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