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Click Shield for Nucleo-32

PID: MIKROE-5177

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MIKROE

Time-saving embedded tools

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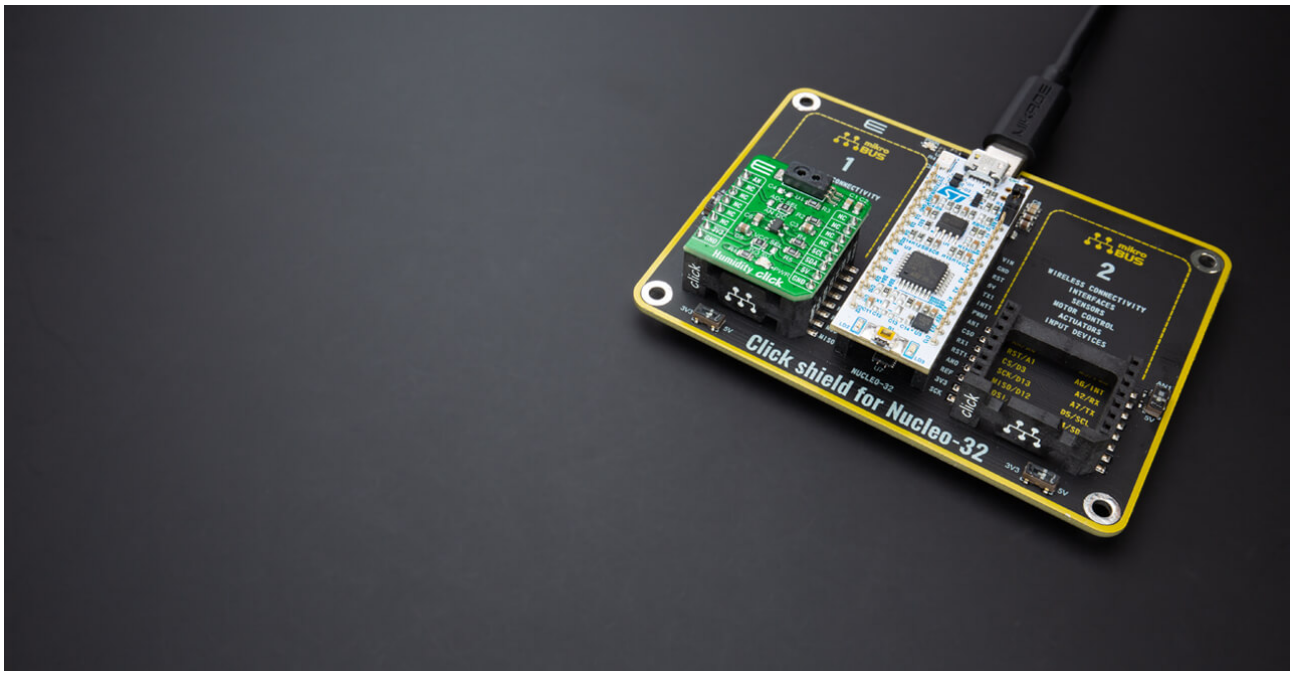

Mikroe produces entire development toolchains for all major microcontroller architectures.
Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.

ISO 27001: 2013 certification of informational security management system.
ISO 14001: 2015 certification of environmental management system.
OHSAS 18001: 2008 certification of occupational health and safety management system.

ISO 9001: 2015 certification of quality management system (QMS).

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Overview

Click Shield for Nucleo-32 is the perfect way to expand your development board's functionalities with STM32 Nucleo-32 pinout. The Click Shield for Nucleo-32 provides two mikroBUS™ sockets to add any functionality from our ever-growing range of Click boards™. We are fully stocked with everything, from sensors and WiFi transceivers to motor control and audio amplifiers.

The Click Shield for Nucleo-32 is compatible with the STM32 Nucleo-32 board, providing an affordable and flexible way for users to try out new ideas and quickly create prototypes with any STM32 microcontrollers, choosing from the various combinations of performance, power consumption, and features. The STM32 Nucleo-32 boards do not require any separate probe as they integrate the ST-LINK/V2-1 debugger/programmer and come with the STM32 comprehensive software HAL library and various packaged software examples.

This development platform provides users with an effortless and common way to combine the STM32 Nucleo-32 footprint compatible board with their favorite Click boards™ in their upcoming projects.

Note: STM32 Nucleo-32 board is not included in the package.

CLICK BOARD
COMBINATIONS

Main features

Click Shield for Nucleo-32 comes equipped with two proprietary mikroBUS™ sockets, allowing all the Click board™ devices to be interfaced with the STM32 Nucleo-32 board with no effort. This way, Mikroe allows its users to add any functionality from our ever-growing range of Click

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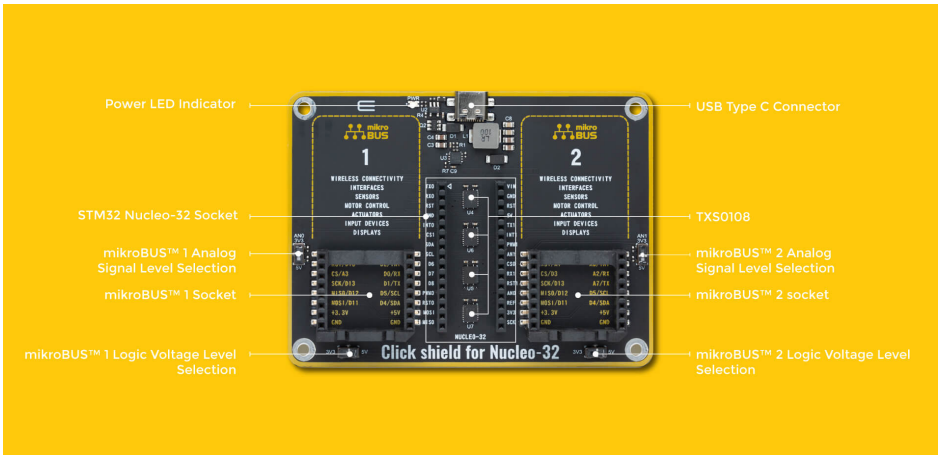
boards™, such as WiFi, GSM, GPS, Bluetooth, ZigBee, environmental sensors, LEDs, speech recognition, motor control, movement sensors, and many more. More than 1381 Click boards™, which can be stacked and integrated, are at your disposal.



The STM32 Nucleo-32 boards are based on the STM32 microcontrollers in 32-pin packages with an integrated debugger and programmer. These boards are controlled and powered conveniently through a USB connection. An ST-LINK debugger/programmer is integrated, saving using an external debug probe and allowing simple drag-and-drop Flash programming. Also, they are supported by powerful development toolchains, including IAR Embedded Workbench for STM8 and Cosmic CXSTM8. The majority of the STM32 microcontroller pins are brought to the IO pins on the left and right edge of the board, which are then connected to two existing mikroBUS™ sockets.

This Click Shield also has several switches that perform functions such as selecting the logic levels of analog signals on mikroBUS™ sockets and selecting logic voltage levels of the mikroBUS™ sockets themselves. Besides, the user is offered the possibility of using any Click board™ with the help of existing bidirectional level-shifting voltage translators, regardless of whether the Click board™ operates at a 3.3V or 5V logic voltage level.

Once you connect the STM32 Nucleo-32 board with our Click Shield for Nucleo-32, you can access hundreds of Click boards™ working with 3.3V or 5V logic voltage levels. Please open our Click Shop filter to check which Click boards™ is compatible with the STM32 Nucleo-32 board. Our Click boards™ is equipped with a library containing functions and example codes for Mikroe compilers available on LibStock, which can be used, as a reference, for further development.

Power your inventions

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When the USB type C connector is connected to the Click Shield, the PWR diode will glow Blue, and at this setup, the connected STM32 Nucleo-32 baseboard and two mikroBUS™ sockets will be powered from it.

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When the USB is connected to the STM32 Nucleo-32 board, the PWR diode will glow Green, and at this setup, the STM32 Nucleo-32 baseboard itself will be supplied, and it will provide power to the Click Shield, including two mikroBUS™ sockets.

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When the USB type C connector is connected to the Click Shield, and the other USB is connected to the STM32 Nucleo-32 board, the PWR diode will glow Cyan, and at this setup, the mikroBUS™ sockets are powered from the Type C connector.

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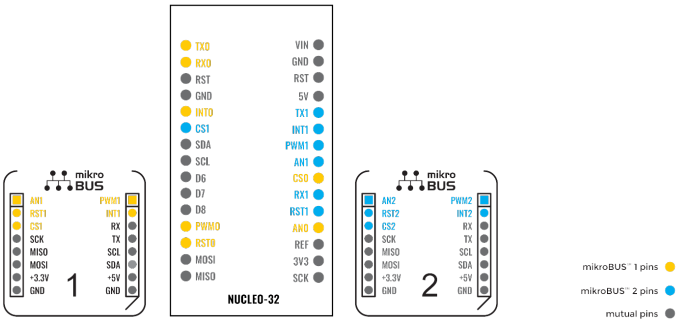
STM32 NUCLEO-32 TO MIKROBUS™ PINOUT



Specifications

Type	Adapter,Shield
Applications	Click Shield for Nucleo-32 allows you to use Click boards™ on your STM32 Nucleo-32 board.
On-board modules	2x mikroBUS™ sockets, connector for connecting compatible STM32 Nucleo-32 board, four TXS0108E level-shifting voltage translators, power part for converting 5V USB to the 3.3V
Interface	Analog,GPIO,I2C,PWM,SPI,UART
Compatibility	mikroBUS™,STM32 Nucleo
Supply Voltage	3.3V,5V

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

Downloads

Click Shield for Nucleo-32 2D and 3D files

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Click Shield for Nucleo-32 schematic