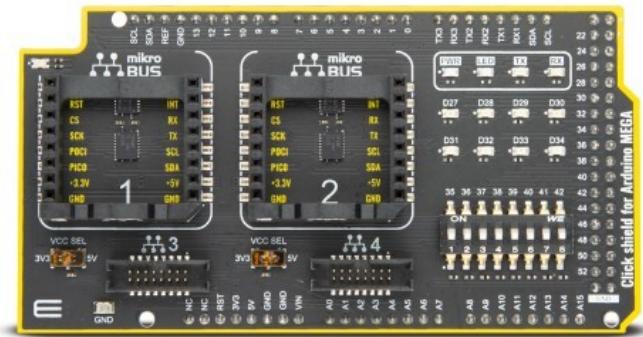


Click shield for Arduino MEGA



PID: MIKROE-5831

Click Shield for Arduino Mega

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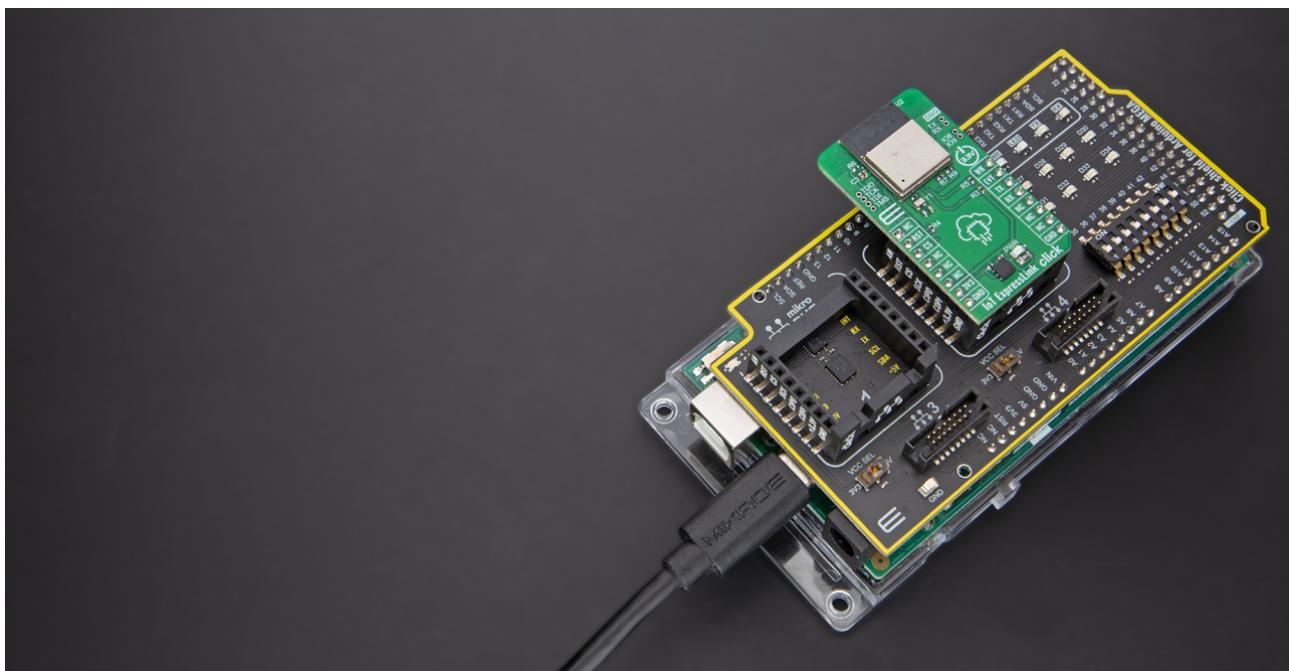
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Overview

Click Shield for Arduino Mega is the perfect way to expand your development board's functionalities with [Arduino Mega](#) pinout. The Click Shield for Arduino Mega provides four [mikroBUS™](#) sockets, with two in the form of a Shuttle connector, 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 Arduino Mega is compatible with the Arduino Mega board, providing an affordable and flexible way for users to try out new concepts and build prototypes with the Mega2560 microcontroller. The Arduino Mega board does not require any separate probe as it integrates a USB serial processor ATmega16U2, which acts as an interface between the USB input signals and the main processor. For this purpose, the ATmega16U2 is loaded with the DFU bootloader. The Arduino Mega also integrates the comprehensive free software libraries and examples available with the Arduino IDE Library packages, as well as on GitHub and other online resources.

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

Note: Arduino Mega board is not included in the package.

CLICK BOARD COMBINATIONS

Main features

Click Shield for Arduino Mega comes equipped with four mikroBUS™ sockets, with two in the

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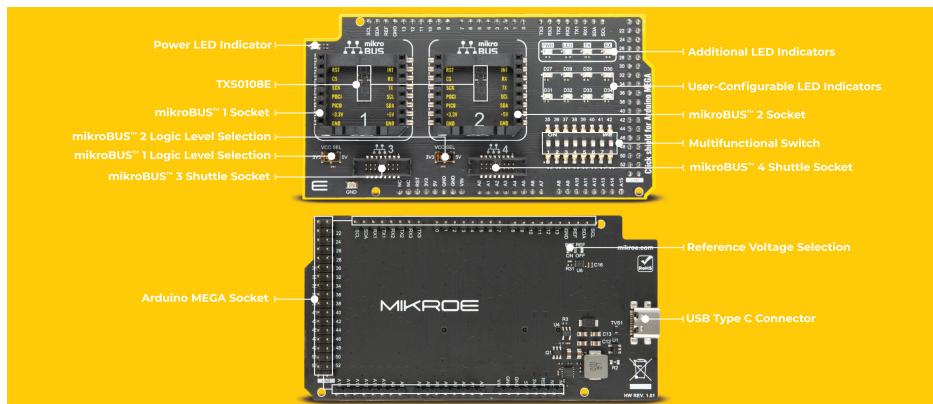


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form of a Shuttle connector, allowing all the Click board™ devices to be interfaced with the Arduino Mega board with no effort. This way, MIKROE allows its users to add any functionality from our ever-growing range of Click boards™, such as WiFi, GSM, GPS, Bluetooth, ZigBee, environmental sensors, LEDs, speech recognition, motor control, movement sensors, and many more. More than 1500+ Click boards™, which can be stacked and integrated, are now available.



Featuring an AVR 8-bit microcontroller with advanced RISC architecture, 54 digital I/O pins, and Arduino™ compatibility, the Arduino Mega board offers limitless possibilities for prototyping and creating diverse applications. This board is controlled and powered conveniently through a USB connection to program and debug the Arduino Mega board efficiently out of the box, with an additional USB cable connected to the USB B port on the board. Simplify your project development with the integrated ATmega16U2 programmer and unleash creativity using the extensive I/O options and expansion capabilities.

There are eight switches, which you can use as inputs, and eight LEDs, which can be used as outputs of the MEGA2560. In addition, the shield features the MCP1501, a high-precision buffered voltage reference from Microchip. This reference is selected by default over the EXT REF jumper at the bottom of the board. You can choose an external one, as you would usually do with an Arduino Mega board. There is also a GND hook for testing purposes. Four additional LEDs are PWR, LED (standard pin D13), RX, and TX LEDs connected to UART1 (mikroBUS™ 1 socket).

This Click Shield also has two additional switches that perform 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 Arduino Mega board with our Click Shield for Arduino Mega, you can access hundreds of Click boards™, working with 3.3V or 5V logic voltage levels. Our Click boards™ are 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 is connected to the Click Shield, the PWR diode will glow Blue, and at this setup, the connected Arduino Mega baseboard and all mikroBUS™ sockets will be powered from it.

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When the USB is connected to the Arduino Mega board, the PWR diode will glow Green, and at this setup, the Arduino Mega baseboard itself will be supplied, and it will provide power to the Click Shield, including all mikroBUS™ sockets.

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When the USB type C is connected to the Click Shield and the other USB is connected to the Arduino Mega board, the PWR diode will glow Cyan, and at this setup, the mikroBUS™ sockets are powered from the Click Shield.

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Specifications

Type	Adapter,Shield
Applications	Click Shield for Arduino Mega allows you to use Click boards™ on your Arduino Mega board
Key Features	2x mikroBUS™ sockets, two in the form of a Shuttle connector, a connector for connecting compatible Arduino Mega board, four TXS0108 level-shifting voltage translators, power part for converting 5V USB to the 3.3V
Interface	Analog,GPIO,I2C,PWM,SPI,UART
Compatibility	Arduino,mikroBUS™ ,Shuttle
Input Voltage	3.3V or 5V,External

Resources

[mikroBUS™](#)[mikroSDK](#)[Click board™ Catalog](#)[Click boards™](#)

Downloads

[Click shield for Arduino MEGA 2D and 3D files](#)[Click shield for Arduino MEGA schematic](#)

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