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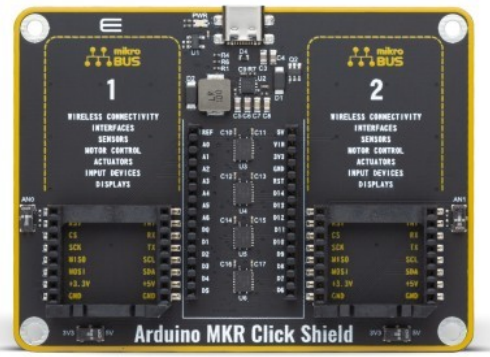
Arduino MKR Click Shield



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Overview

Arduino MKR Click Shield is the perfect way to expand the functionalities of your development board compatible with Arduino's MKR pinout. The Arduino MKR Click Shield 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 MKR boards come with various connectivity modules ranging from WiFi to GSM, making them the right solution for your next IoT project. Compared to the Arduino Uno's familiar form factor, MKR boards are much smaller. It combines a low-power ARM® Cortex® microcontroller with the possibility to be powered by a rechargeable LiPo battery using the built-in connector. Boards like Arduino MKR WiFi 1000, Arduino MKR ZERO, Arduino MKR WAN 1310, Arduino MKR FOX 1200, Arduino MKR NB 1500 are just some of the compatible development boards with the Arduino MKR footprint of this Click Shield.

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

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

CLICK BOARD
COMBINATIONS

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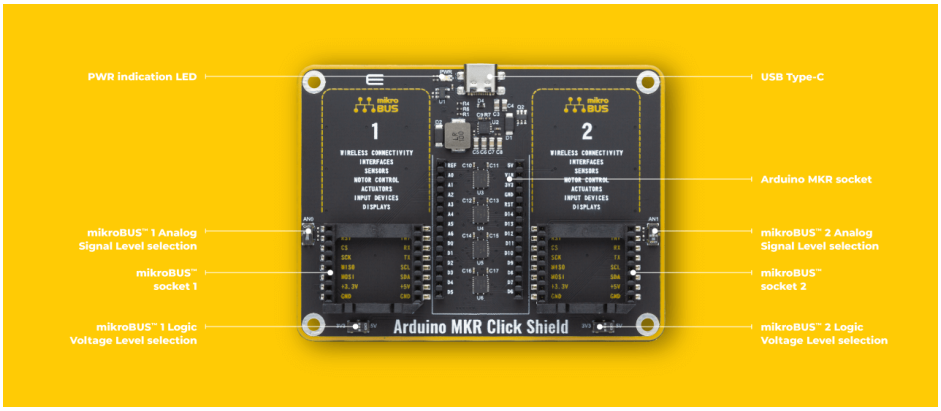
Main features



Arduino MKR Click Shield comes equipped with two proprietary mikroBUS™ sockets, allowing all the Click board™ devices to be interfaced with the Arduino MKR board with no effort at all. 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 975 Click boards™, which can be stacked and integrated simply, and conveniently, are at your disposal.

The Arduino MKR can be programmed with the Arduino Software (IDE), an Integrated Development Environment common to all Arduino boards, and runs both online and offline. The main IC on the Arduino MKR board comes pre-burned with a bootloader that allows you to upload new code to it without an external hardware programmer. The Arduino software includes a serial monitor that allows sending simple textual data to and from the Arduino board. In addition, the MKR boards also supports I2C and SPI communication and includes a Wire library to simplify the use of the I2C bus. For more information on how to get started with the Arduino Software, visit the Getting Started page.

This Click Shield also has several switches that perform functions such as selection of the logic level of analog signals on mikroBUS™ sockets, as well as a selection of logic voltage levels of the mikroBUS™ sockets themselves. Besides, with the help of existing bidirectional level-shifting voltage translators the user can combine Arduino MKR board with any Click board™, regardless of whether the Click board™ operates at 3.3V or 5V logic voltage level.

Once you plug Arduino MKR board into the Arduino MKR Click Shield, it will allow you access to hundreds of Click boards™ working with 3.3V or 5V logic voltage level. For checking which Click boards™ are compatible with Arduino MKR boards, please open our Click Shop filter. Our Click boards™ are equipped with a library that contains 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 Shield, the PWR diode will glow Blue, and at this setup, the connected Arduino MKR baseboard and two mikroBUS™ sockets will be powered from it.

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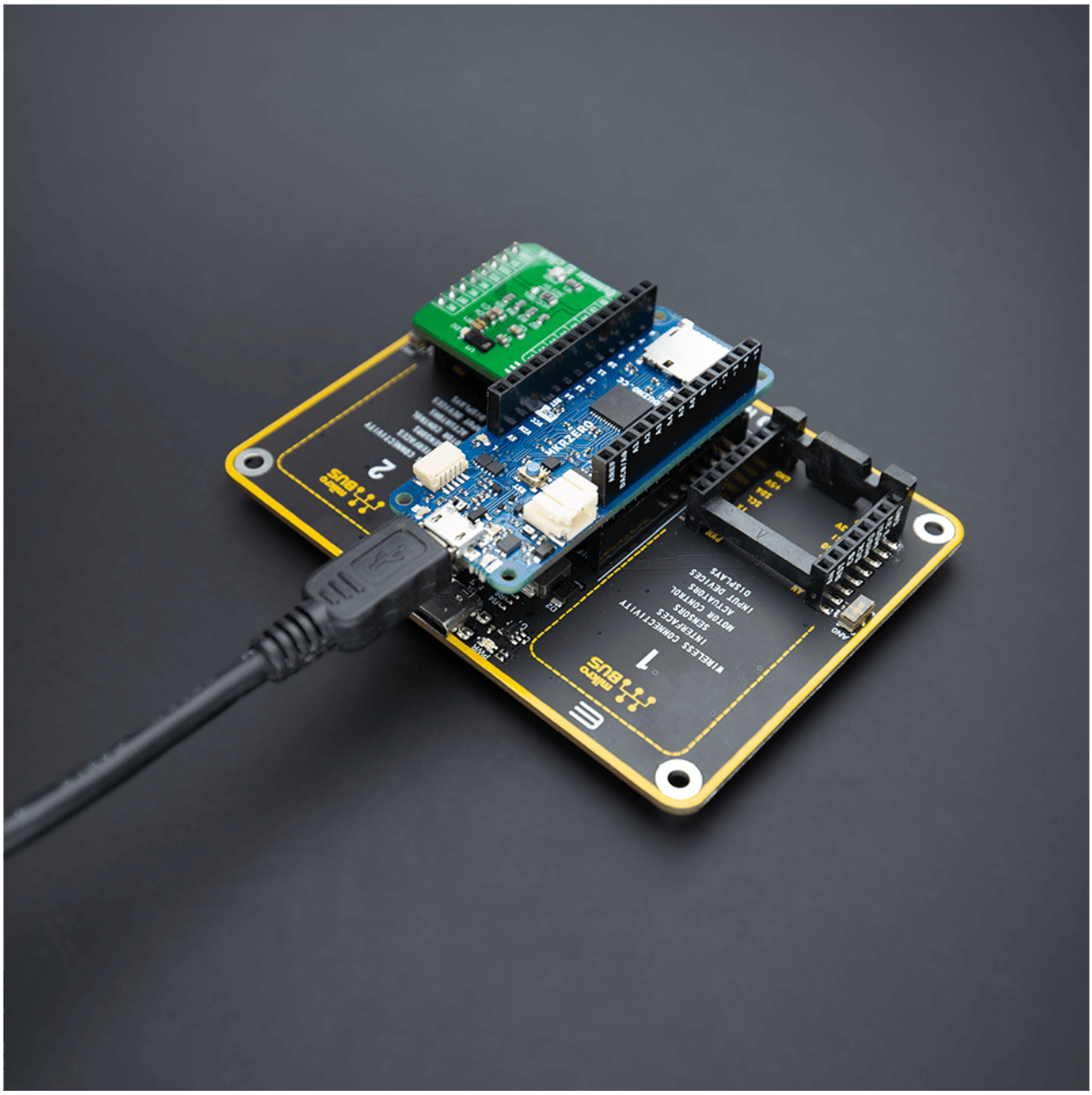

When the USB is connected to the Arduino MKR board, the PWR diode will glow Green, and at this setup, the Arduino MKR baseboard itself will be powered and will provide power to the Shield including two mikroBUS™ sockets.

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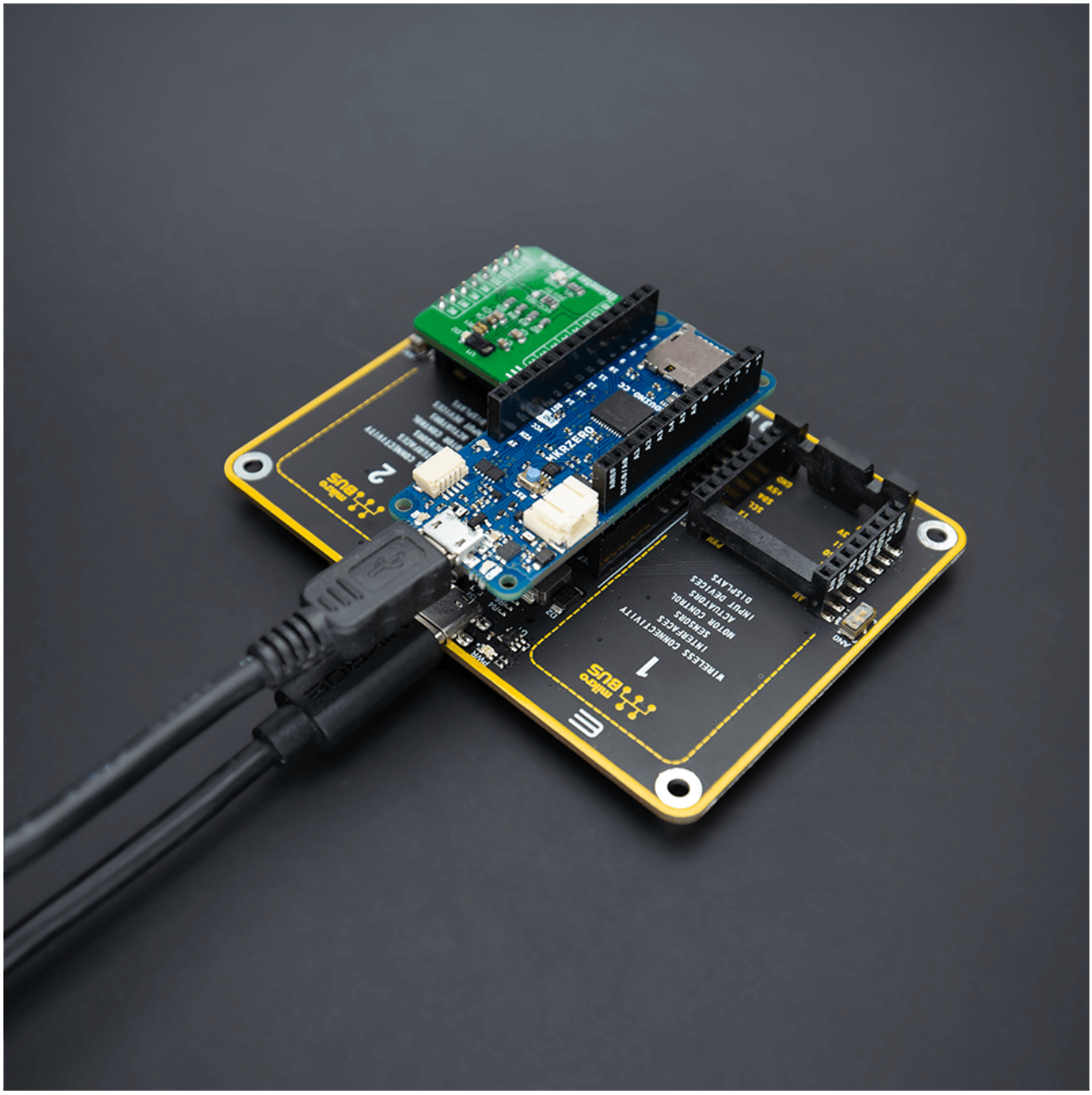

When the USB type C connector is connected to the Shield, and the other USB is connected to the Arduino MKR board, the PWR diode will glow Cyan, and at this setup, the mikroBUS™ sockets are powered from the Type C connector. The Arduino MKR board is unloaded from delivering power to them and is powered from its source (USB mini), over which you can also upload the program to your board.

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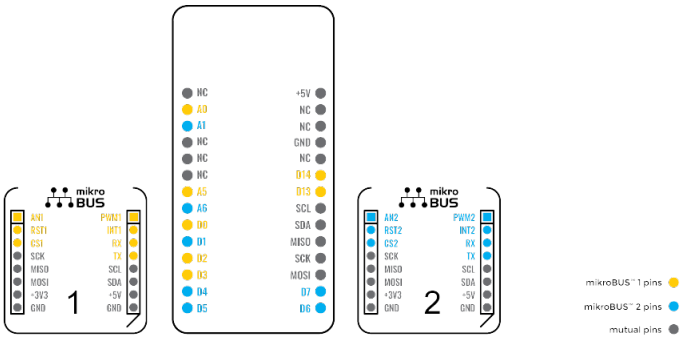
ARDUINO MKR TO mikroBUS™ PINOUT



Specifications

Type	Adapter,Shield
Applications	Arduino MKR Click Shield allows the combination of any development boards compatible with Arduino MKR pinout with Click boards™.
On-board modules	Two mikroBUS™ sockets, connector for connecting compatible Arduino MKR 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	Arduino,mikroBUS™
Input Voltage	3.3V,5V

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

Downloads

Arduino MKR Click Shield 2D and 3D files

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Arduino MKR Click Shield schematic

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