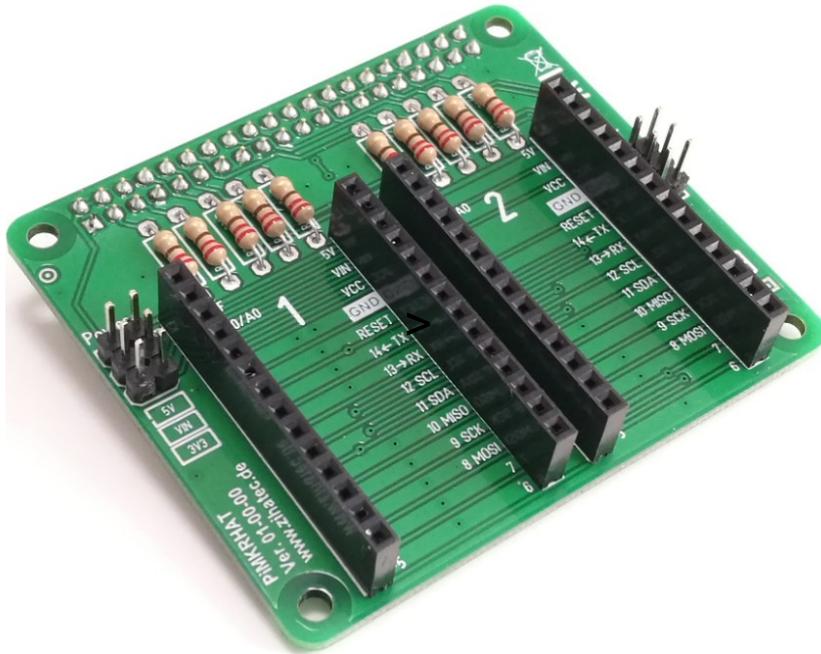


PiMKRHAT



Arduino MKR bridge HAT for Raspberry Pi



Features:

- 2 independent slots for Arduino MKR boards or shields
- 2x20 Header for Raspberry Pi
- PCB Shape suitable for Pi4
- Protection resistors
- Jumper bank to configure the power supply of MKR boards
- Jumper bank to configure the UART for MKR boards and shields
- Holes for optional spacers
- Comes in kit form

Arduino MKR bridge HAT for Raspberry Pi

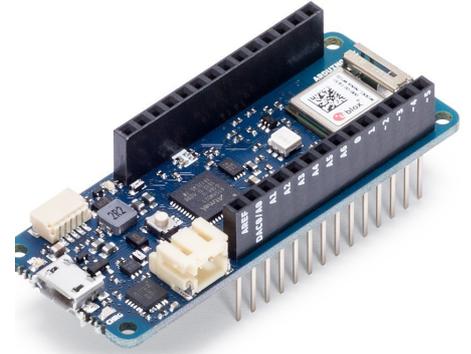
Compatible Arduino MKR Boards:



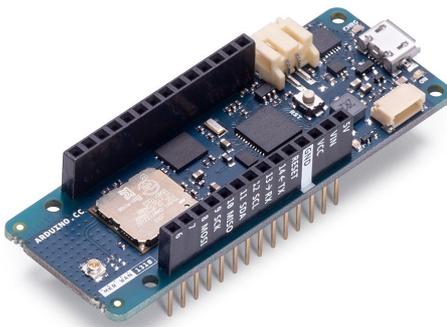
Arduino MKR ZERO



Arduino MKR1000



Arduino MKR WiFi 1010



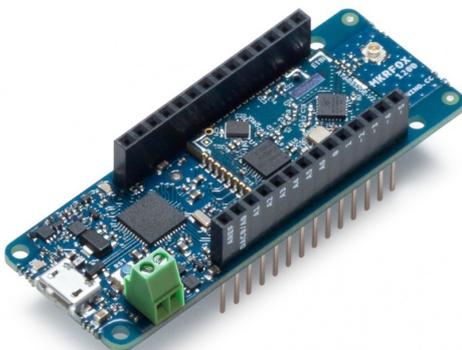
Arduino MKR WAN 1300/1310



Arduino MKR GSM 1400

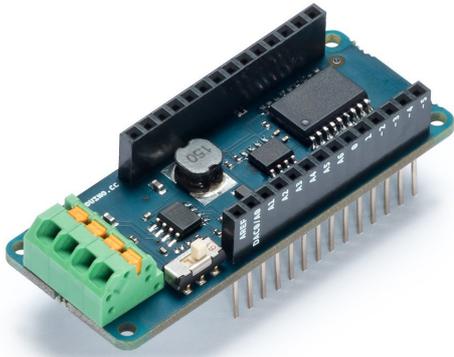


Arduino MKR NB 1500

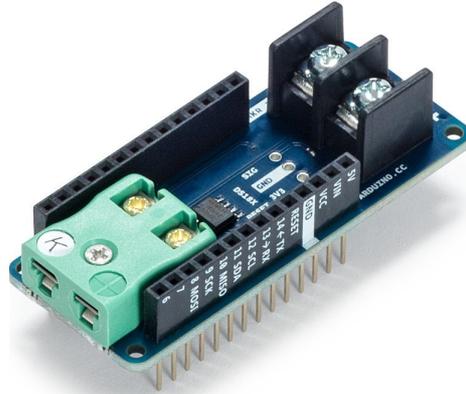


Arduino MKR FOX 1200

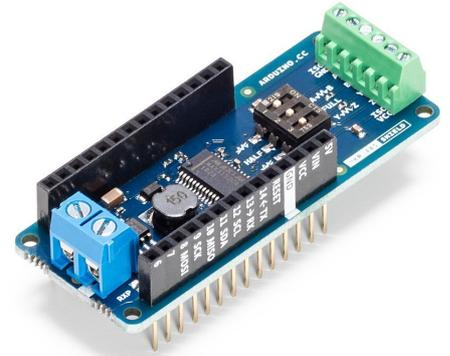
Compatible Arduino MKR Shields:



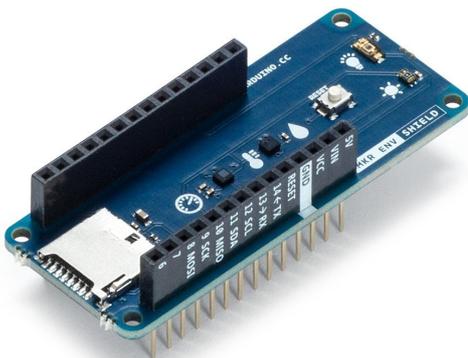
Arduino MKR CAN Shield



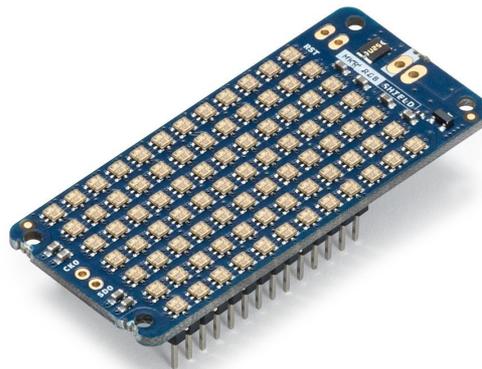
Arduino MKR Therm Shield



Arduino MKR 485 Shield



Arduino MKR ENV Shield



Arduino MKR RGB Shield

Please note:

MKR IMU Shield, MKR MEM Shield, MKR ETH Shield and MKR GPS Shield are probably compatible but not tested until now.

In any case you can use these shields together with an Arduino MKR board of your choice and the PiMKRHAT (communication with Rpi via UART of the MKR board).

Compatible Raspberry Pi boards



Raspberry Pi B+, 2 B, 3 B, 3 B+



Raspberry Pi 4 B



Raspberry Pi A+, 3 A+

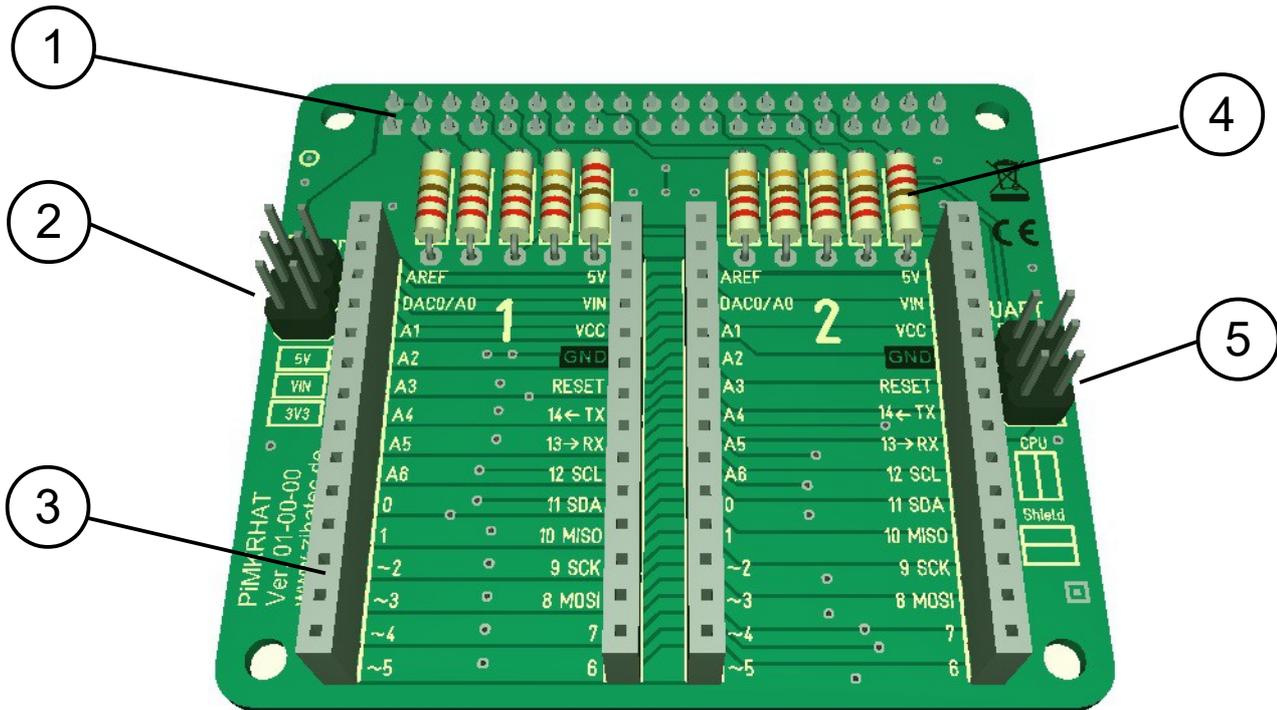


Raspberry Pi Zero (w)

Part number table:

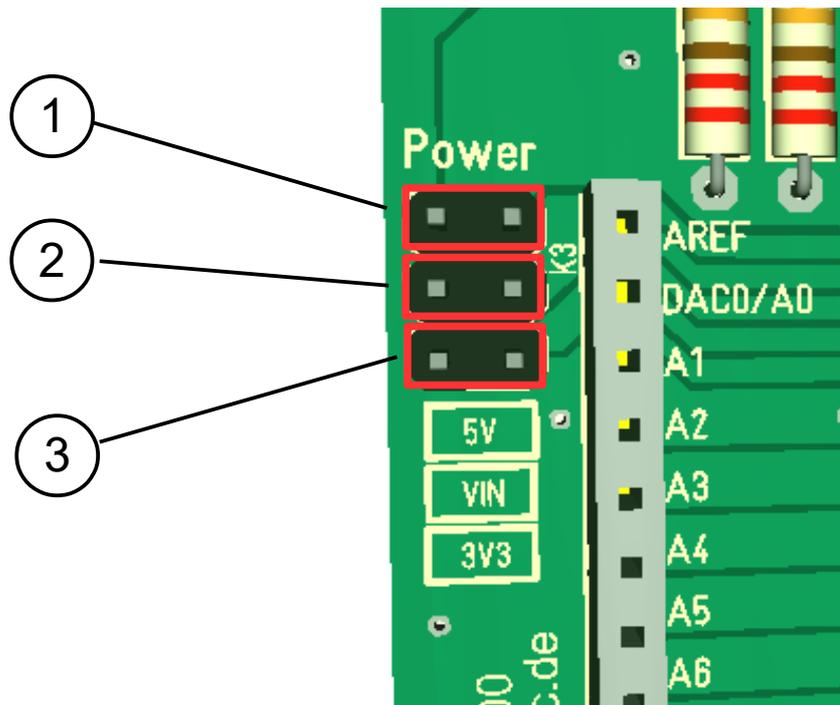
Part-No.	EAN	Version
RPMKRHT	676424951176	PiMKRHAT Kit

Control Elements:



- ① female header for Raspberry Pi connection
- ② jumper bank power supply
- ③ headers for Arduino MKR boards
- ④ protection resistors
- ⑤ jumper bank UART

Jumper bank for power supply:



① Jumper 5V

Set this jumper for stand-alone use of Arduino MKR shields only.
If you want to use an Arduino MKR board (MKR WiFi 1010, MKR NB 1500 etc.) together with an optional Arduino MKR shield leave this jumper open.

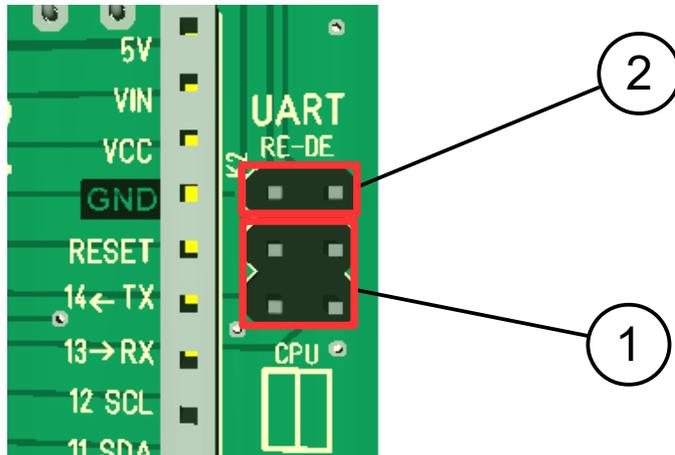
② Jumper Vin

Set this jumper for use with Arduino MKR boards (MKR WiFi 1010, MKR NB 1500 etc.) only.
For stand-alone use of MKR Shields leave this jumper open.

③ Jumper 3V3

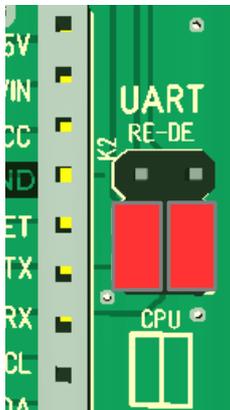
Set this jumper for stand-alone use of Arduino MKR shields only.
If you want to use an Arduino MKR board (MKR WiFi 1010, MKR NB 1500 etc.) together with an optional Arduino MKR shield leave this jumper open.

Jumper bank for UART:

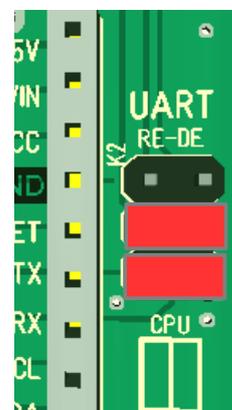


For use with an Arduino MKR board (MKR WiFi 1010, MKR NB 1500 etc.) or MKR 485 Shield only. In all other cases leave these jumpers open!

① Jumpers for UART connection



For use with an **Arduino MKR board**:
GPIO15 is connected with TX (D14)
GPIO 14 is connected with RX (D13)



For use with an **MKR 485 shield**:
GPIO15 is connected with RX (D13)
GPIO 14 is connected with TX (D14)

② Jumper for RE-DE control (MKR 485 shield only)

Usually A5 (RE) is connected with GPIO23 and A6 (DE) is connected with GPIO18. Some software stacks for Raspberry Pi requires the control of the transmission/receive mode via a single pin only. This jumper will make a short circuit between A5 and A6. GPIO23 or GPIO18 can be used to switch the mode. The unused GPIO pin should be configured as input.

Usage of Ports:

Ports Arduino:	A0	A1	A2	A3	A4	A5	A6	0	1	~2	~3	~4	~5	6	7	8	9	10	11	12	13	14	
MKR ZERO																					x	x	
MKR 1000																						x	x
MKR WiFi 1010																						x	x
MKR FOX 1200																						x	x
MKR WAN 13x0																						x	x
MKR GSM 1400																						x	x
MKR NB 1500																						x	x
MKR CAN Shield											x				x	x	x	x					
MKR 485 Shield						x	x															x	x
MKR THERM								x										x	x				
MKR ENV Shield			x									x		x	x	x	x	x	x	x			
MKR RGB				x	x																		
Ports Raspberry:				GPIO17	GPIO12	GPIO23	GPIO18	GPIO4	GPIO5	GPIO6	GPIO13	GPIO7	GPIO8	GPIO19	GPIO26	GPIO10	GPIO11	GPIO9	GPIO2	GPIO3	GPIO15	GPIO14	