

Can UnaShield use on all Arduino platforms?

UnaShield is a shield, designed by UnaBiz, for Arduino platform with Atmel MCU equipped. It's well-suited for the Arduino UNO R3 to communicate with the on-board SIGFOX module, which is controlled by the generic UART interface, declared PIN4 & PIN5 as UART-TX & UART-RX respectively.



UnaShield is fully-tested on Arduino UNO R3; however, it's not compatible with all the variants of Arduino platform, because of the pin definition/function difference. Here are two series platforms suffered from the incompatibility

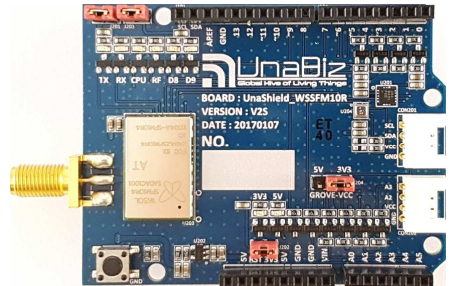
(1) Mega & Mega2560

Only the following pins can be used for RX : 10, 11, 12, 13, 50, 51, 52, 53, 62, 63, 64, 65, 66, 67, 68, 69

(2) Leonardo & Micro

Only the following pins can be used for RX : 8, 9, 10, 11, 14, 15, 16

For the users of these Arduino platforms mentioned above, it's recommended to switch the UART-RX from PIN5 to another pin with RX function to fix this incompatibility.



Step1 : Declare the unused PIN5 (UART-RX) as an input pin according to the setting table shown below, even though leave the PIN5 unused is fine on Arduino UNO R3.

Step2 : Connect PIN5 (UART-RX) to one of the pins with RX function to be the UART-RX by a external metal wire.

DDxn	PORTxn	PUD (in MCUCR)	I/O	Pull-Up	Comment
0	0	X	INPUT	NO	HI-Z
0	1	0	INPUT	YES	
0	1	1	INPUT	NO	HI-Z
1	0	X	OUTPUT	NO	Output Low
1	1	X	OUTPUT	NO	Output High