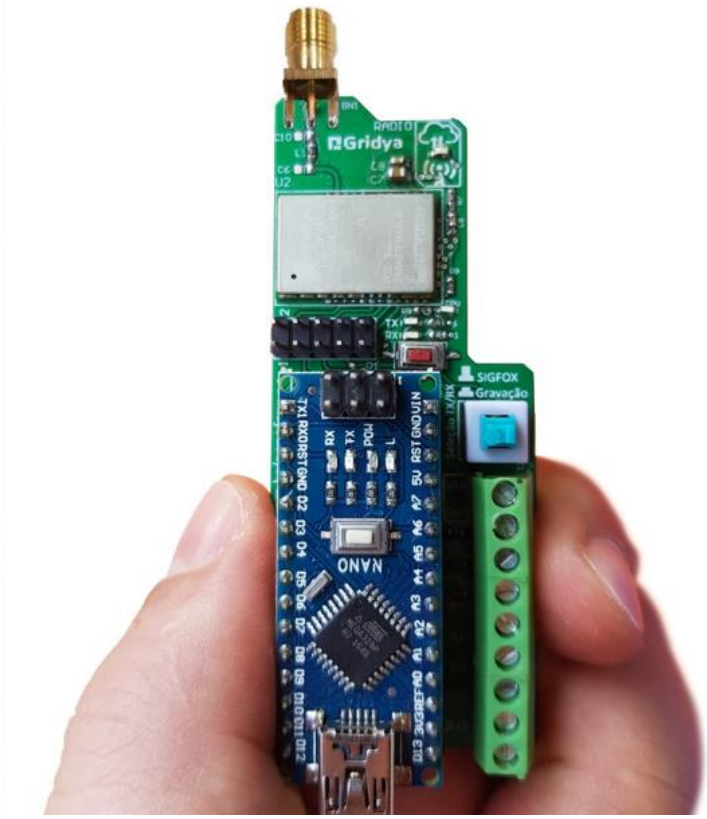
NANOFOX IoT Kit

Internet of Things with Sigfox + Arduino



Discover the Sigfox connectivity technology for Internet of Things.

Learn, create, explore and validate your ideas with NANOFOX IoT kit.

Wide coverage and expanding. 1 year of Sigfox connection included.

Flexible. Develop with your HW/SW favorite platform.

Simple integration with main IoT platforms in the market.

Complete documentation. Schematics, user manual and SW examples.

Ultra low power.

Sigfox allows operation for many years with batteries. (1)

3D case available to evaluate your prototype in the field.

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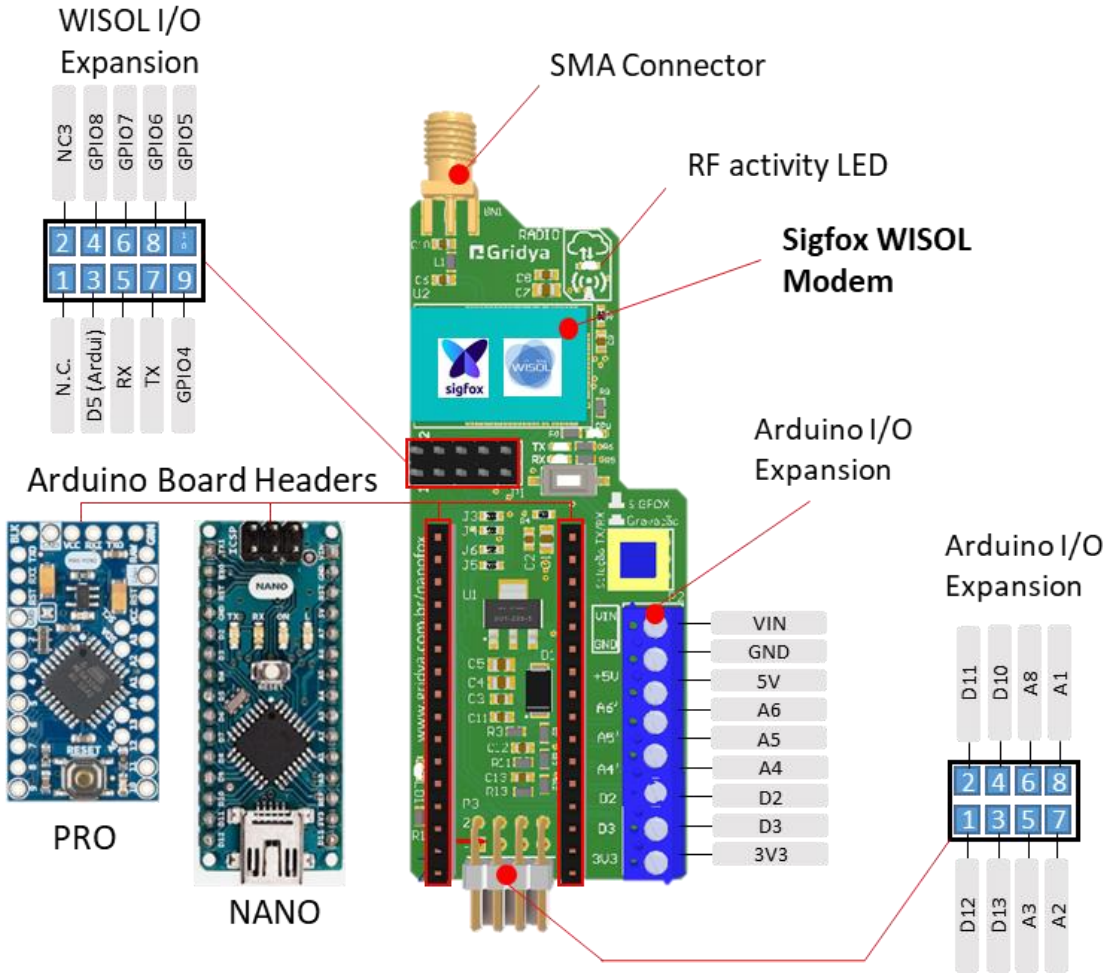
NANOFOX IoT Kit is an evaluation board for Sigfox connectivity using WISOL serial modem. It provides out of the box connection with Arduino NANO / PRO boards, accelerating the learning curve and validation of new ideas, business models and products concepts.



Main Features:

- ✓ Connector compatible with Arduino NANO and PRO boards
- ✓ I/Os for external use (i.e.: Shields interface, sensors, etc.).
- ✓ Ease integration with any hardware platform through UART and simple AT commands. (ESP8266, ESP32, Raspberry PI, PIC, AVR, Texas, STM32, PC, etc)
- ✓ Ultra-low power allows battery operation for long periods.
- ✓ WISOL Sigfox verified module for region **RC2** - USA/Mexico/Brazil/ and **RC4** - Australia, New Zealand, Singapore, Taiwan, Hong Kong, Colombia, Argentina, Costa Rica, Thailand, Malaysia, Ecuador, Panama, El Salvador.
- ✓ 1 year of Sigfox connection included with access to Sigfox Backend tools.

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Technical Specifications:

Radio Specs	
Sigfox Modem	WISOL WSSFM11R2DAT
Chipset	AX-SFUS-1-01/ ON Semiconductor
Tx Frequency	RC2 - 902,2MHz / RC4 - 920.8 MHz
Rx Frequency	RC2 - Rx 905,2MHz / RC4 Rx 922.3
Tx Output Power	+24dBm(max.)@600bps
Rx Sensitivity	-129dBm(min.)@600bps
Current : @+3.3V	Tx : 170mA(typ @ 22.5dBm), Rx : 32mA(typ)
Overall Specs	
Input voltage[2]	5 to 12 VDC (Powered from Arduino Board when USB connected)
Antenna	SMA connector for external antennas.
Outer Dimensions	79.2mm x 32.3mm
Arduino slot	Direct connection for Arduino NANO and PRO MINI or compatible boards
Expansion Connectors	Arduino pins (Screw terminal block) [3]
	Arduino pins (Header connector) [3]
	WISOL modem (Header conector) [3]
On board Led Indicators	1 General Purpose LED connect in Arduino I/O + Wisol modem status (TX, RX, Radio and CPU)
On Board Button	1 General Purpose Button connect in Arduino I/O

[1] Related to Sigfox technology. Battery duration will be highly dependent on usage cases, battery types and power supply design.

[2] Optional voltage regulator can be used for battery optimization, in this case with limited input voltage range I.e.: AP2111H-3.3 (Input voltage 3.6 to 6V – low quiescent current 55uA typical).

[3] See board schematics for detailed pinout information.

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