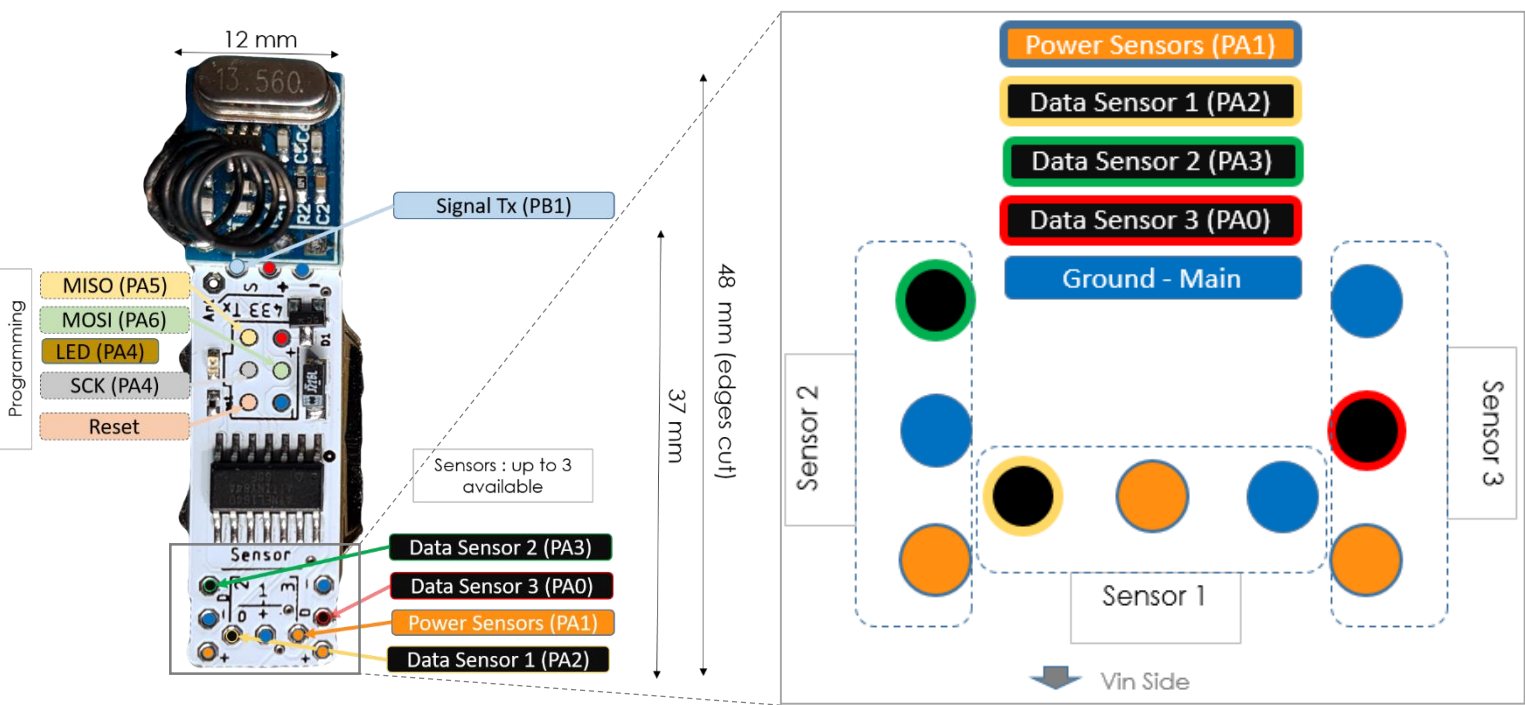


Temperature Sensor

Zoom on the sensors



The antenna should be straighten for better range.

Green LED

Usually, you need a 4,7kOhms resistor between Vdd and Gnd. But it can be replaced with proper input pullup in the library.

DS18B20

Preparing the board to send data

1. Straighten the antenna

The antenna was folded for shipment and to take less space. If space is not a problem, consider straightening the antenna for better range.

2. Power it

14500

If rechargeable batteries are provided, you may want to check their voltage : 4.1V= 100% charged, 3.8V= charge it, 3.5V= 0%.

CR2016 -> CR2032

Do not try to charge them. >3V = nearly full.

The case can handle CR2016 battery but you may need to bend the contacts to put sufficient pressure on it.

Protection: The board is protected with a diode on the main power (not the ICSP !). So inverting the battery will simply won't work, it will not fry anything.

3. Receive data

Once powered, the LED will light up for 3 seconds. Then it sends battery voltage over X10RF protocol, then send data every X minutes. All theses messages are recognized and received by the [RFLink](#).

Set up the RFLink on Domoticz for receiving sensor data: <https://www.youtube.com/watch?v=Oq-hN-RJ2sA>

Different protocols are flashed on the boards

Oregon protocol

DHT22

DS18B20 (waterproof also)

Capacitive soil moisture sensor

X10RF protocol

Resistive level sensor

Pressure sensor

Water flow sensor

Raw analogic sensor

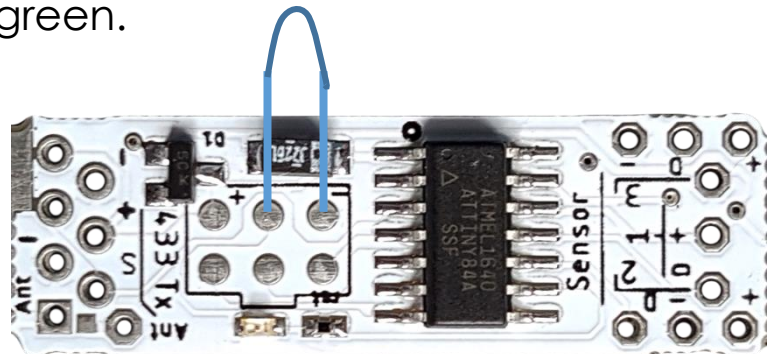
For X10RF a conversion rate may be necessary to display a readable value.

4. Change the ID [optionnal]

The ID is randomly set during first boot. It can be set new during the boot process if the MOSI (PA6) pin on the ICSP connector is set to Gnd before the LED shuts off.

When setting up the ID, the LED blinks 5 times.

Short it with a tweezers, dupont cable or pogo pins while the LED is green.



5. Reset the board

You can reset either by shorting Reset and Gnd, or by pulling the battery. If you remove the battery, you have to wait at least 30 seconds because to be sure the board is powered off.

