## BOM to realize the prototype V1.0 of transponder lora32u4

Last update: 2019/08/10

Element	Ref.	Price Euro
LoRa32u4 II Lora LiPo Atmega32u4	https://bsfrance.fr/lora-long-range/ 1345-LoRa32u4-II-Lora-LiPo- Atmega32u4-SX1276-HPD13-868MHZ-EU- Antenna.html	13,12
Antenna 5dBi 868Mhz LoRa with pigtail uFl to SMA antenne 868Mhz LoRa	https://bsfrance.fr/lora-long-range/ 1350-Antenna-5dBi-868Mhz-LoRa-with- pigtail-uFl-to-SMA-antenne-868Mhz- LoRa.html	3,68
RXB6 433Mhz	https://www.amazon.it/DollaTek- receptor-inal%C3%Almbrico- Superheterodyne-Arduino/dp/ B07DK6VF3W/ref=sr_1_cc_2? s=aps&ie=UTF8&qid=1551871715&sr=1-2- catcorr&keywords=rxb6 2,60 / each	2,60
Grove- Barometer_Sen sor-BMP180	<pre>http://wiki.seeedstudio.com/Grove- Barometer_Sensor-BMP180/</pre>	5,22
Breadboard	https://www.amazon.com/BB400- Solderless-Plug-BreadBoard-tie- points/dp/B0040Z1ERO BB400 Solderless Plug-in BreadBoard, 400 tie-Points, 4 Power Rails, (84 x 55 x 9mm)	5,40
Breadboard Jumper Wires	https://www.amazon.com/Breadboard- Jumper-Wire-75pcs-pack/dp/B0040DEI9M	5,90
3.7V LiPo battery	Example: <a href="https://www.adafruit.com/product/2011">https://www.adafruit.com/product/2011</a> Lithium Ion Battery - 3.7v 2000mAh Important: see Note01	11,37
waterproof container for the system, including batteries.	Example: https://www.amazon.com/LeMotech- Dustproof-Waterproof-Electrical- 200mmx155mmx80mm/dp/B075DKNQSM/ ref=sr_1_4?	12,00

	keywords=electric+box&qid=1567328680& s=gateway&sr=8-4	
Total		59,29

## Note01:

check that the supplied battery does not have the connectors reversed from those provided for in Lora32u4II (unfortunately there are two standards that use the same type of connector). See the module documentation on the BsFrance site. If it is inverted, using a needle, remove the terminals from the connector and invert the poles.

## Accessories used for firmware development and device program with Arduino tools

Micro USB to USB Cable.

Example:

https://www.amazon.com/Micro-USB-to-Cable/dp/B004GETLY2

Price: 2,40 Euro