

Libelium-Thing+ LoRaWAN Smart Fish Farming Solution Kit

Quick Start Guide



The IoT Marketplace
— Make it real —



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1. Identify the products



2. MultiConnect® Conduit™ IP67 Base Station

To know how to install the MultiConnect® Conduit™ IP67 Base Station please, visit [Multitech website](#).



3. Open the box



4. Recharge Plug & Sense!



5. Antennas set up



6. Check connection diagram

Libelium Thing+ Smart Fish Farming Solution Kit Get started in the IoT!

Plug & Sense!

- (1) Plug & Sense! Smart Water LoRaWAN x1
- (2) Plug & Sense! Smart Water Ions LoRaWAN x1

Sensor Probes

- (3) Conductivity Sensor Probe x1
- (4) pH Sensor Probe x1
- (5) Dissolved Oxygen Sensor Probe x1
- (6) Soil/Water temperature (Pt-1000) Probe x1
- (7) Ammonium Ion (NH₄⁺) Sensor Probe [PRO] x2
- (8) Nitrite Ion (NO₂⁻) Sensor Probe [PRO] x1
- (9) Smart Water Ions Reference Sensor Probe [PRO] x1

Calibration

- (10) Conductivity Calibration Kit, K=0,1 x1
- (11) Conductivity Calibration Kit, K=1 x1
- (12) Conductivity Calibration Kit, K=10 x1
- (13) pH Calibration Kit x1
- (14) DO Calibration Kit x1

Power Options

- (15) 6600mAh Rechargeable Battery + External Solar Panel x2

Meshlium

- (16) Multitech LoRaWAN BS, 4G x1

Training

- (17) Technical Consultancy 2 hours x1

- Show a working demo to your customers within days
- Create an IoT laboratory for your students
- Test and discover the most suitable technology for your project

Connection Diagram



*Pictures are for representation purpose only.

7. Sensors setup



8. Connect sensors



9. Connect Solar Panel

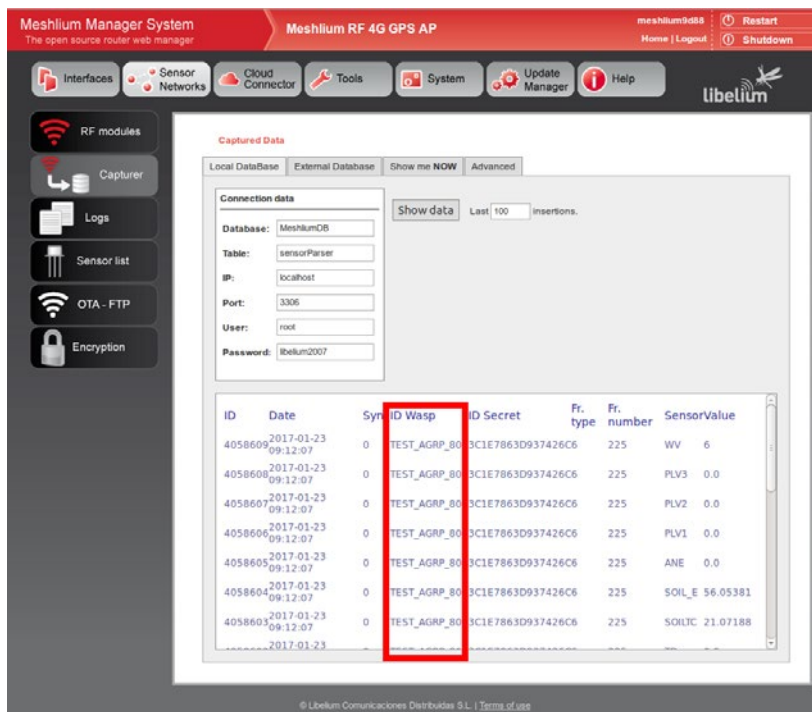


10. Turn ON Plug & Sense!



11. Checking if data is received

- Access to Meshlium as explained before in page 5-6.
- To check that your Plug & Sense! is sending data, see the ID_Wasp. The ID_Wasp of each Plug & Sense! can be found in the details sticker.



Meshlium Manager System
The open source router web manager

Meshlium RF 4G GPS AP

meshlium@db Restart
Home / Logout Shutdown

Interfaces Sensor Networks Cloud Connector Tools System Update Manager Help

libelium

RF modules
Capturer
Logs
Sensor list
OTA - FTP
Encryption

Captured Data

Local DataBase External Database Show me NOW Advanced

Connection data

Show data Last 100 Insertions.

Database: MeshliumDB
Table: sensorParser
IP: localhost
Port: 3306
User: root
Password: libelium2007

ID	Date	Sym	ID Wasp	ID Secret	Fr. type	Fr. number	SensorValue
4058609	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	WV	6
4058608	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	PLV3	0.0
4058607	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	PLV2	0.0
4058606	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	PLV1	0.0
4058605	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	ANE	0.0
4058604	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	SOIL_E	56.05381
4058603	2017-01-23 09:12:07	0	TEST_AGRP_80	3C1E7863D937426C6	225	SOILC	21.07188

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12. Next Steps

- Your Key Account Manager will put you in contact with the person in charge of the software services provider.