

Getting started in 5 minutes

Congratulations with your purchase, thank you for choosing Quantified!

This is a quick guide to getting started, please go to <https://www.quantified.eu/our-products> for all our manuals and product catalog with specifications.

1 Gateway installation

When connecting to a company network ask your IT-department to open "port 1700"
(For IT-department, connect to: router.eu.thethings.network with upd protocol)

For optimal functionality the gateway must be placed as high as possible:

- Higher then 6 meters and above the canopy
- Antenna vertically positioned, in line of sight with the sensors
- No metal or concrete obstacles within 1 meter from antenna

Indication range and FireFly battery life

Growing system	Antenna	Battery FireFly	Range (Gateway - Firefly)	Remarks
High wire	6 meters and above canopy	+/- 9 months	+/- 150 meter	Always reset FireFly sensor on final location
Tables	6 meters and above canopy	+/- 11 months	+/- 250 meter	Always reset FireFly sensor on final location
Floor	6 meters and above canopy	+/- 13 months	+/- 350 meter	Always reset FireFly sensor on final location
Open field	6 meters and above canopy	+/- 13 months	500-1000 meter	Always reset FireFly sensor on final location

1.1 Instructions for outdoor gateway Gout

Install the antenna vertically, 6 meters or higher, above the canopy and free standing!

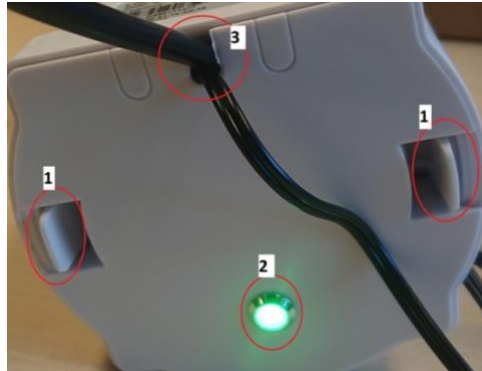


Figure 1: Underside of the gateway

1. Squeeze and pull the tabs (1) to gain access to the antenna, power and ethernet ports.
2. LED status light:
 - a. SOLID GREEN: Gateway has a LoRaWAN server connection.
 - b. BLINKING GREEN: a) Device has internet connection but no LoRaWAN Connection. Or b) Device is in booting stage, in this stage, it will be BLINKING GREEN for several seconds and then RED and YELLOW will blink together.
 - c. SOLID RED: Device doesn't have Internet connection.
3. Cable passthrough ports (break out if needed)
4. Install the antenna vertically, 6 meters or higher, above the canopy and free standing!



Figure 2: Mounting hardware and antenna

The gateway can be screwed onto the plastic block which has holes for the metal straps. This way the gateway can be mounted onto almost any pole. The fixing material in the plastic bag can be used to mount the antenna.

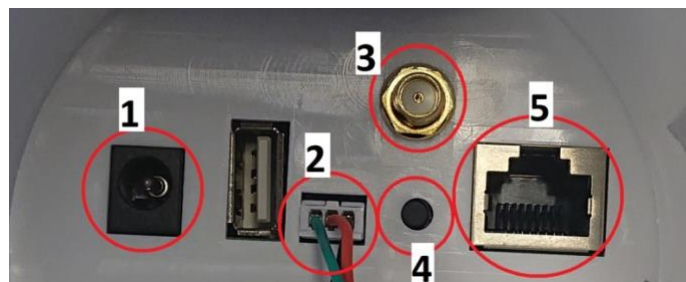


Figure 5. (1) Power supply, (2) LED connector, (3) Lora antenna connector, (4) Hard reset button. **Do not use!**, (5) Ethernet port

2 Installing the Firefly sensor (first install the Gateway!)

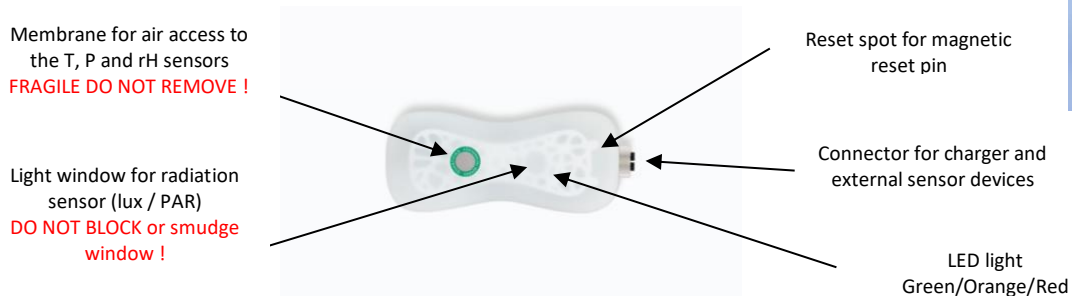


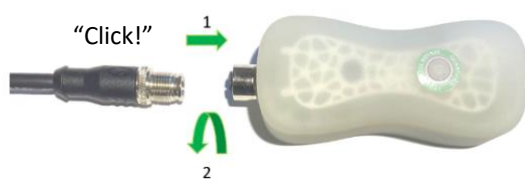
Figure 6. Firefly sensor (sensor configuration as an example, your configuration may differ)

The Firefly sensor nodes are shipped in “safe mode” to preserve battery life and prevent transmission during airfreight. First charge the battery to 100% (red indicator lamp on the charger will turn green when fully charged).

Reset the Firefly by swiping the Quantified reset magnet over the indicated spot just above the connector. The LED-indicator will flash red. After some time the LED will flash green, the Firefly is online! Ensure that the M12 connector is always shielded with a cap to prevent corrosion and internal damage.

It is important to reset the Firefly when in its final location, this will optimize the wireless connection. Also after moving the Firefly to another location later on. Each additional magnetic reset will result in a reset of counters or taring of scales.

3 Connecting external sensor devices to the FireFly sensor



External sensor devices use the transmission module and power source of the Firefly platform sensor. The connector only fits in one position. Carefully rotate the connector until it clicks into place. Then screw the chrome ring tight (firm but only by hand), this is important to keep any moisture out! When the external sensor is connected, activate the combination by using the magnetic reset pin. This reset also

resets counters in sensors like the scale, pluviometer and drainsensor.

Please consult the relevant installation guide or manual for your external sensor on our website.

It is important to reset the Firefly when in its final location, this will optimize the wireless connection. Also after moving the Firefly to another location later on. Each additional magnetic reset will result in a reset of counters or taring of scales.