

Issues based on the infrastructure and environment in Southeast Asia was picked up.

- 1. Necessary to correct LCS data using the reference level monitor.**
- 2. Necessary to prepare the blackout and internet connection lost.**
- 3. Prevent the fluctuation of electricity voltage.**

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I. Necessary to correct LCS data using the reference level monitor.



- To ensure the data accuracy of the LCS, periodic calibration is required every six months or at least once a year.
- For calibration, the reference machine and the LCS must be operated in parallel to value the LCS.
- Parallel operation of the reference machine and LCS is assumed to be performed by local staff, while the LCS valuing is handled by the manufacturer.

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2. Necessary to prepare the blackout and internet connection lost.



- **In GBiot's case, the data is stored locally on the SD card of the sensor device so that it is retained in the event of a power failure or loss of communication.**
- **It should be noted that after recovery from a power failure, sensors for gaseous substances such as O3 and NO2 require at least one day for normal operation.**

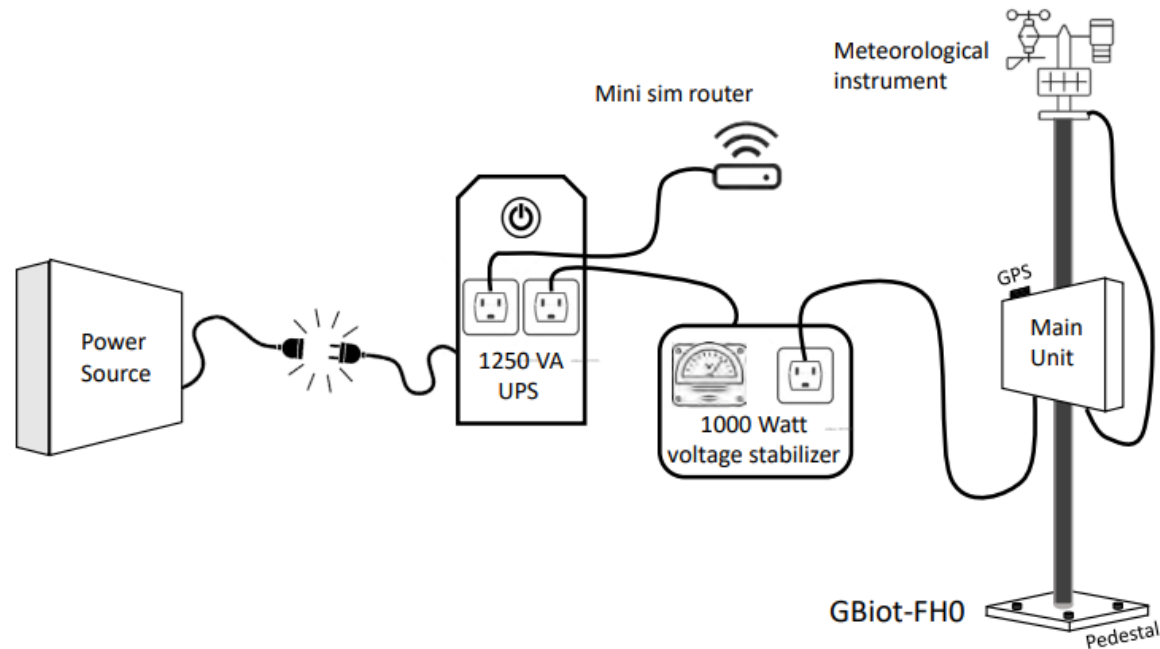
Although not applied in this case, the following methods are also available

- **Implement battery backup and energy storage systems. This will not only allow us to respond to temporary power outages, but also prevent data loss.**
- **Implement solar, wind, and other energy harvesting technologies to ensure a sustainable power supply for sensing devices. This reduces the impact of power supply interruptions.**

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3. Prevent the fluctuation of electricity voltage.

- Using UPS (uninterruptible power supply) and stabilizers to stabilize the power supply is effective.



Source: Nippon Koei Co., Ltd.

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(4) Effects of power disconnection on environmental sensing



- Frequent power disruptions can accelerate the wear and tear on sensing devices and associated electronic components.
- The cycling of power on and off can contribute to the degradation and earlier failure of these components.