



## Features

- 1. Dust Measurement** : Accurately measures PM2.5 levels.
- 2. Weather Monitoring** : Supports measurement of temperature and humidity.
- 3. Automatic Alerts** : Sends notifications via LINE or other display systems.
- 4. Power Supply** : Operates on both electricity and solar power
- 5. Online Connectivity** : Transmits data to a database and displays it on a website or LINE Official Account.

## Installation

- Install in open areas free of obstructions like trees or tall buildings.
- Keep away from pollution sources such as factories or vehicle exhaust.
- Use a stable base or stand to prevent tipping.
- Connect the power cable to an electrical outlet or a solar panel.
- Turn on the device and check the display or status lights to ensure proper operation.

## Operation

### Starting the Device

- Switch the breaker inside the device to the "ON" position.
- Wait approximately 30 seconds for the system to initialize.

### Checking Data

- View PM2.5, temperature, and humidity data on the display or application.

### Notifications

- If PM2.5 levels exceed the standard, the system will alert via LINE or the PM2.5 display system.

### Shutting Down the Device

- Switch the breaker inside the device to the "OFF" position.

## Precautions

- 1.** Do not operate the device in wet or highly humid areas.
- 2.** Avoid direct contact with sensors to prevent damage.
- 3.** Do not install in areas with temperatures exceeding 50°C or humidity over 90%.
- 4.** Do not modify the device without guidance from a specialist.

## Maintenance

- Use a dry cloth to gently wipe the device and sensors.
- Check monthly to ensure sensors are free of dust or debris.
- Disconnect the power source and store in a dry place if not in use for an extended period.
- Connect the system to update the firmware to the latest version.

## PM2.5 Display Device

This device provides real-time PM2.5 readings on a display, complemented by LED color indicators that represent air quality levels :

**Level 0 - 25 (Excellent) : Green**

**Level 26 - 37 (Good) : Yellow**

**Level 38 - 50 (Moderate) : Orange**

**Level 51 - 90 (Unhealthy) : Red**

**Level > 91 (Very Unhealthy) : Blue**

When the PM2.5 concentration exceeds the specified limit, a yellow siren light on top of the device activates, indicating high dust levels. If the red siren light is triggered, it alerts the community of severe health impacts.



# DUFOON



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LINE Dufoon Official

## User Manual

*Air pollution crisis warning stations in community area*

*สถานีเตือนภัยวิกฤตฝุ่นละอองในอากาศ  
ในพื้นที่ชุมชน*



*This invention focuses on developing an air pollution warning system for communities and leveraging NB-IoT technology for efficient cloud data transmission. Real-time alerts are sent via the official LINE OA account and displayed on the website [Dufoon.cm.in.th](http://Dufoon.cm.in.th).*