

# Development of small, low-cost Doppler LiDARs and accuracy verification methods for mass production. (Metroweather Co.,Ltd.)



City	Year of Establishment	Founder	Website
Uji City, Kyoto	2015	Junichi Furumoto	<a href="https://www.metroweather.jp">https://www.metroweather.jp</a>

Partner VC	Latest round of Fundraising	Valuation
Drone Fund	Series A	JPY 1,300 million

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## ○ Business Plan

We aim to develop a service to provide 3D wind information to enable us to find the most suitable flight pass for safe UAV(unmanned aerial vehicle) and AAM (Advanced Air Mobility) to monitor the detailed wind information near the drone-port and verti-port. This service will provide the important information to continue or stop their operation for the operators of UAV and AAM.

In order to obtain the comprehensive wind map even at the complex terrestrial region such as urban area, we will develop a compact-sized and low-cost Doppler LiDAR. The data validation method is also established to improve the value and reliability of our product.

Our new product is provided to the potential users in the United States and obtained the important feedback to improve our product.

## ○ Research Outline

This research and development will achieve the downsized, light-weight, maintenance-free, and cost-effective Doppler LiDAR. We will release line-up of the multi product to suit the needs of customers. The cost reduction of Doppler lidar is very important to start the business to the first look customer and useful to construct the wide lidar network. The certificate of data precision is also very important tool to expand our business. The data verification method will be established in this research.

Business Area/Field	Research Period	Research Grant Amount	International collaborative technology demonstration
Energy & Infrastructure	PCA FY2023~2025	JPY 676 million	United States (Scheduled in Texas).

## ○ International collaborative technology demonstration

- Commissioned and collaborative research with overseas business companies/universities, etc.
- Establishing or planning to establish company branches overseas.
- Partnering or planning to partner with local partners for research and development, business development, etc.

We will provide the prototype of new product to the oversea (mainly in United States) potential customer to obtain the important feedback to improve our product.

To establish this framework, we will establish a maintenance base in the United States and hire engineers and customer service staff for the quality control and maintenance.