

**FY2024 STEP1**

**Noto Peninsula earthquake is the start of the project**



## Problem

- **Customer: Transporters of materials and supplies in harsh environments such as mountainous and depopulated areas**
  - Power line construction and maintenance: Electric Power Company, Power Distribution Company, Power line maintenance company, etc.
  - Transportation of supplies to mountain huts: Mountain hut operator, etc.
  - Disaster and Humanitarian Aid, Disaster Prevention and Defense: Government Contractors, etc.
- **Customer Issues: Labor shortage, high costs, safety risks**
  - ✓ **Shortage** of transport workers (Declining population, changing work styles, and tendency to avoid physical labor)
  - ✓ **High cost** of helicopter transport (Rising fuel costs, etc., Human-powered transportation to arrival and departure sites)
    - Difficulty securing land for loading (Not nearby due to the high cost of installation. Cost increase due to necessary coordination with landowners)
    - High dependence on those with transportation (Difficult to negotiate the amount of goods that can be transported and the delivery date, etc. on equal terms.)
  - ✓ Significant risk, including fatalities (Risk of slipping and heat stroke at work)



## Results of STEP1



**March 2025: Unit1 (50 Kg lifted)**



Prof. **AKASAKA Takeshi**  
College of Engineering,  
Kanazawa Institute of Technology

## Challenges through startup

### • VTOL-type winged electric drone “Drone 50/50”

◎ **Maximum payload of 50 kg and range of over 50 km**

- Travel short distances multiple times without charging
- Long-distance, heavy-cargo drones are rare

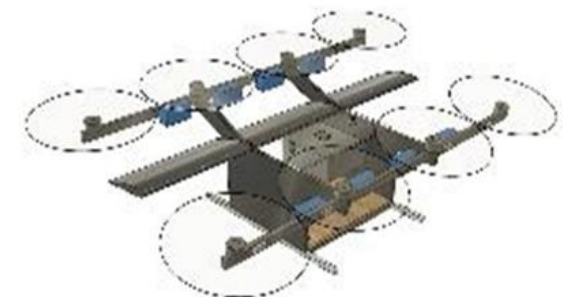
### ○ **Vertical take-off and landing**

- OK on uneven ground and in parking lots

### ○ **Electric**

- Easy to handle

• **To the global drone market**



**Drone 50/50 (image)**