

# FUKUSHIMA

## Capability Statement

**AI-Powered UAV Systems | Custom Flight Controllers | Browser-Based Ground Control Stations**

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## Company Overview

FUKUSHIMA LLC develops advanced UAV technologies including browser-based Ground Control Stations (GCS), custom STM32H743 flight controllers, ArduPilot integration, MAVLink systems, mission planning software, and AI-powered UAV applications.

Our focus is to provide practical, deployable solutions for aerospace companies, UAV manufacturers, system integrators, and advanced drone operations.

### Headquarters

Sakatani Building 5F  
3-9-4 Akasaka, Minato-ku  
Tokyo 107-0052, Japan

### Website

<https://fukushima-gk.com>

### Contact

info@fukushima-gk.com

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## Core Capabilities

### Custom Flight Controller Development

- STM32H743-based hardware design
- ArduPilot integration
- PX4-compatible hardware development
- UAV electronics design
- Sensor integration
- Custom interface development
- Hardware validation

### Browser-Based Ground Control Stations

- Real-time telemetry monitoring
- Mission planning systems
- Fleet management dashboards
- Video wall operations
- Browser-based UAV control interfaces
- Multi-aircraft monitoring

## **UAV Software Development**

- MAVLink integration
- Mission planning tools
- Fleet management systems
- Airspace risk assessment
- Weather risk assessment
- Operational decision-support tools

## **AI-Powered UAV Applications**

- ONNX Runtime integration
  - Real-time object detection
  - Tracking systems
  - Tactical visualization systems
  - AI-assisted mission operations
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# **Technical Expertise**

## **UAV Technologies**

- ArduPilot
- PX4
- MAVLink
- UAV Telemetry Systems
- BVLOS Mission Planning
- Ground Control Station Architecture

## **Embedded Systems**

- STM32H743
- ARM Cortex-M7
- PCB Design
- Hardware Integration
- Sensor Fusion

## **Software Technologies**

- Python
- Flask
- Linux
- Ubuntu
- REST APIs
- WebSocket Communication

## **AI Technologies**

- ONNX Runtime
  - Computer Vision
  - Object Detection
  - Tracking Systems
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## **Project Experience**

### **Fixed-Wing UAV Flight Controller Development**

- STM32H743-based flight controller architecture
- ArduPilot integration
- Custom hardware design
- PCB design and validation

### **Browser-Based Ground Control Station Development**

- Mission planning
- Fleet management
- MAVLink telemetry
- Browser-based operational interfaces

### **Custom UAV Electronics Development**

- UAV electronics architecture
  - Interface development
  - Embedded hardware systems
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## **Current Solutions**

### **Custom Flight Controller Development**

<https://fukushima-gk.com/custom-fc/>

## Custom Ground Control Station Development

<https://fukushima-gk.com/custom-gcs/>

## UAV Technology Library

<https://fukushima-gk.com/technology/>

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## Why FUKUSHIMA UAV

- Complete UAV system development capability
  - Hardware and software integration expertise
  - Browser-based operational platforms
  - Custom STM32 flight controller development
  - MAVLink and ArduPilot specialization
  - Rapid engineering and prototype development
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## Contact

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Website: <https://fukushima-gk.com>

GitHub: <https://github.com/FUKUSHIMA-UAV>