

Drone Log Management System - High Level Design

Overview

This system provides a platform to track drones, incidents, logs, and pre/post-flight checks.

Architecture

- Backend: Node.js, Express, TypeScript, MongoDB
- Frontend: React, TypeScript, Vite, Tailwind CSS
- Database: MongoDB with Mongoose ODM

Features

- Drone management: CRUD operations for aircraft
- Log upload and parsing: MAVLink .tlog files
- Incident tracking: Create, update, delete incidents
- Pre/Post flight checks: Automated and manual checks

Technologies

- Backend: Express, Mongoose, node-mavlink
- Frontend: React Router, Radix UI, TanStack Table
- Testing: Jest, Supertest