# ✈️ Live Aircraft Tracker Dashboard

A local web-based dashboard that displays **live aircraft flying overhead or nearby your home**, using real-time data from **OpenSky Network** and **ADS-B.lol** as a fallback.

Built using Python, Flask, HTML/CSS/JS — designed as something cool to run on your spare screen! Specifically, one of those flip chart/rolodex, old school airport displays.

## 🧠 Features

* 🔁 **Auto-refresh** (15s / 30s / 1m / 2m selectable)
* 🛫 Shows **aircraft model**, **route**, **callsign**, **distance**, and **altitude**
* 🌍 Displays **airline logos** (automatically loaded by callsign)
* 🔄 **Fallback to ADS-B.lol** when OpenSky is rate-limited or down
* 🕒 Timestamp for last data refresh
* 📦 Runs entirely on localhost, with no cloud dependencies
* 📱 Responsive enough to be viewed from your phone (same network)

## 🛠️ Tech Stack

* Python 3.x
* Flask
* OpenSky Network API
* ADS-B.lol API
* HTML5 + CSS + basic JavaScript

## 🚀 Quick Start

### 1. Clone the repo

git clone https://github.com/yourusername/aircraft-tracker-dashboard.git  
cd aircraft-tracker-dashboard

### 2. Install dependencies

pip install -r requirements.txt

### 3. Set your coordinates

Edit flights.py and update this section:

MY\_LAT = 3.1088  
MY\_LON = 101.666  
RADIUS\_KM = 100

### 4. Run the app

python app.py

Then open your browser to: http://localhost:5000

## 🔑 Optional: OpenSky Credentials

If you have an OpenSky account, edit the USERNAME and PASSWORD in flights.py to avoid rate limits.

## 📁 Project Structure

├── app.py  
├── flights.py  
├── requirements.txt  
├── templates/  
│ └── dashboard.html  
├── static/  
│ └── logos/ (optional if using Airhex)  
└── docs/  
 └── demo.gif

## 💡 Ideas for Future Features

* Live ATC-style map overlay
* Weather integration (METAR/TAF)
* Flight filters (altitude, speed, direction)
* SMS/email alert when a rare aircraft is overhead
* Offline caching for aircraft types/models

## 🙌 Acknowledgements

* [OpenSky Network](https://opensky-network.org)
* [ADS-B.lol](https://api.adsb.lol/docs)
* [Airhex](https://www.airhex.com/) for dynamic airline logos
* [Geopy](https://pypi.org/project/geopy/) for accurate distance calculations

## 📜 License

MIT License — free to use, build on, remix, and fly further!

Made with by Siva, built for the endless skies above.