



# Aerobatics Black Box

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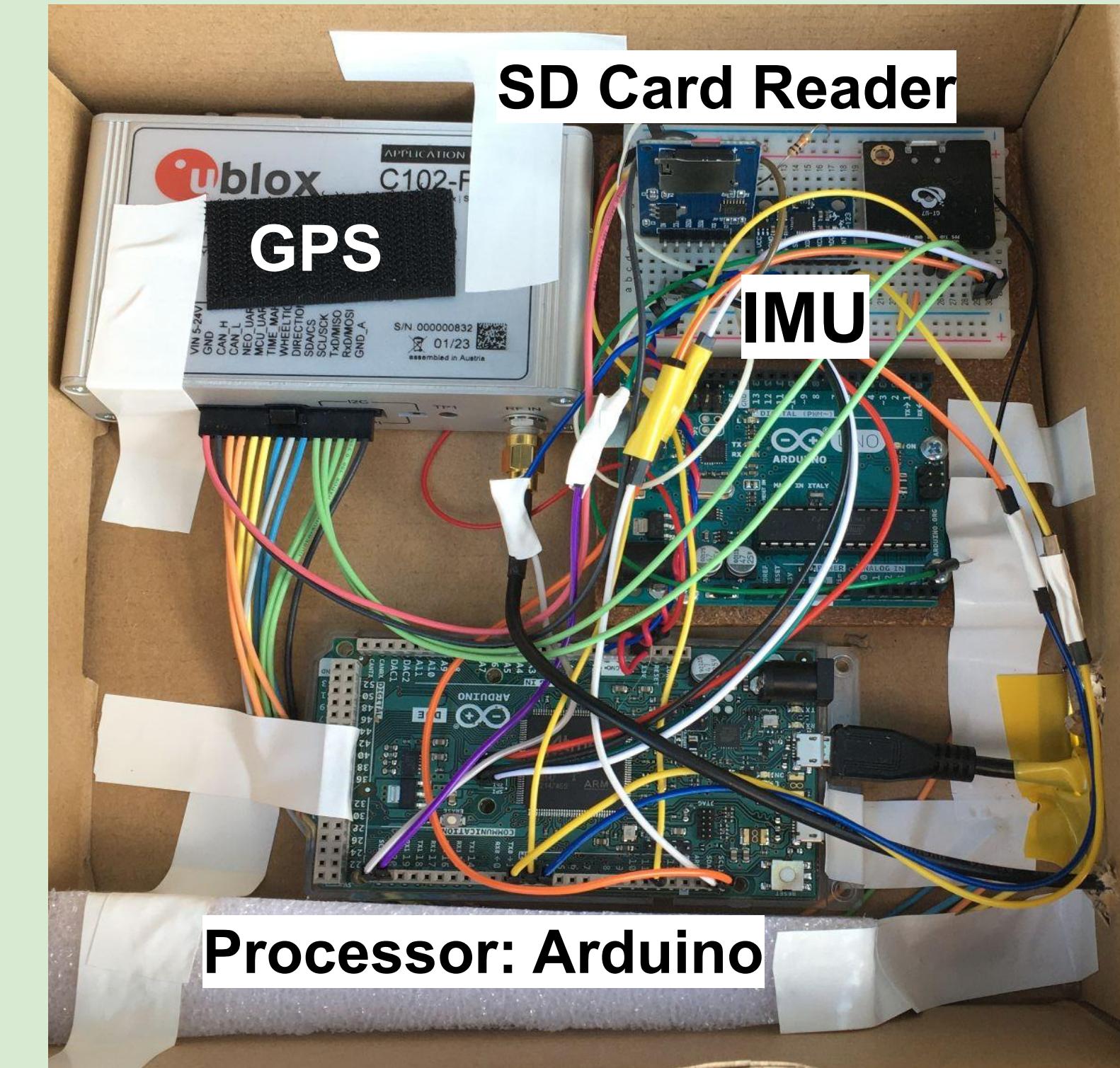
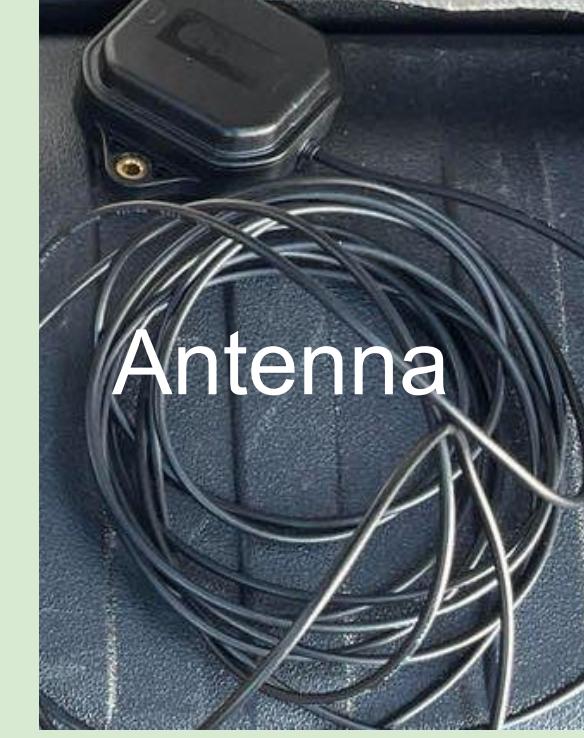
## Problem

It is difficult for aerobatics pilots to visualize how their performances look to spectators on the ground.



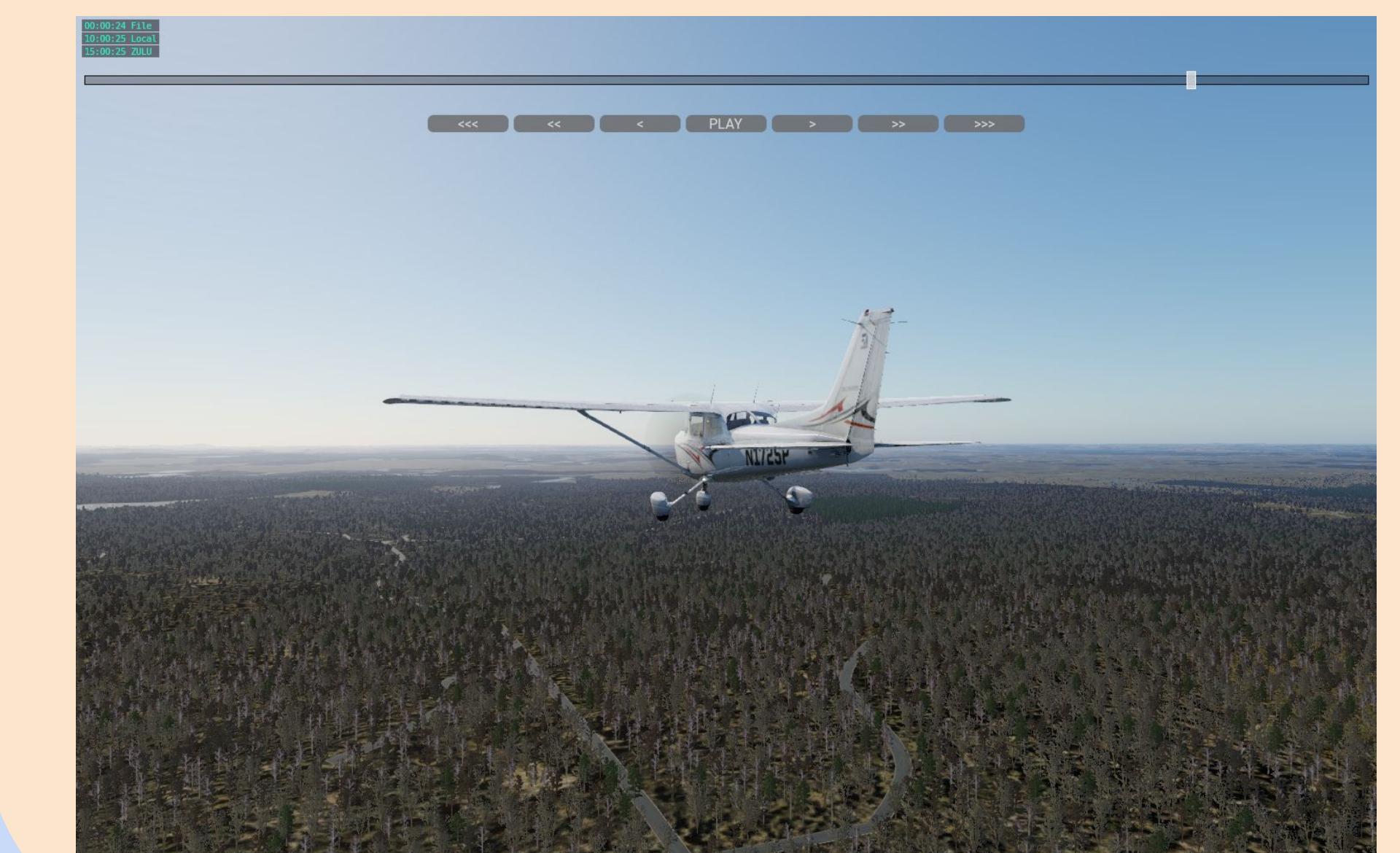
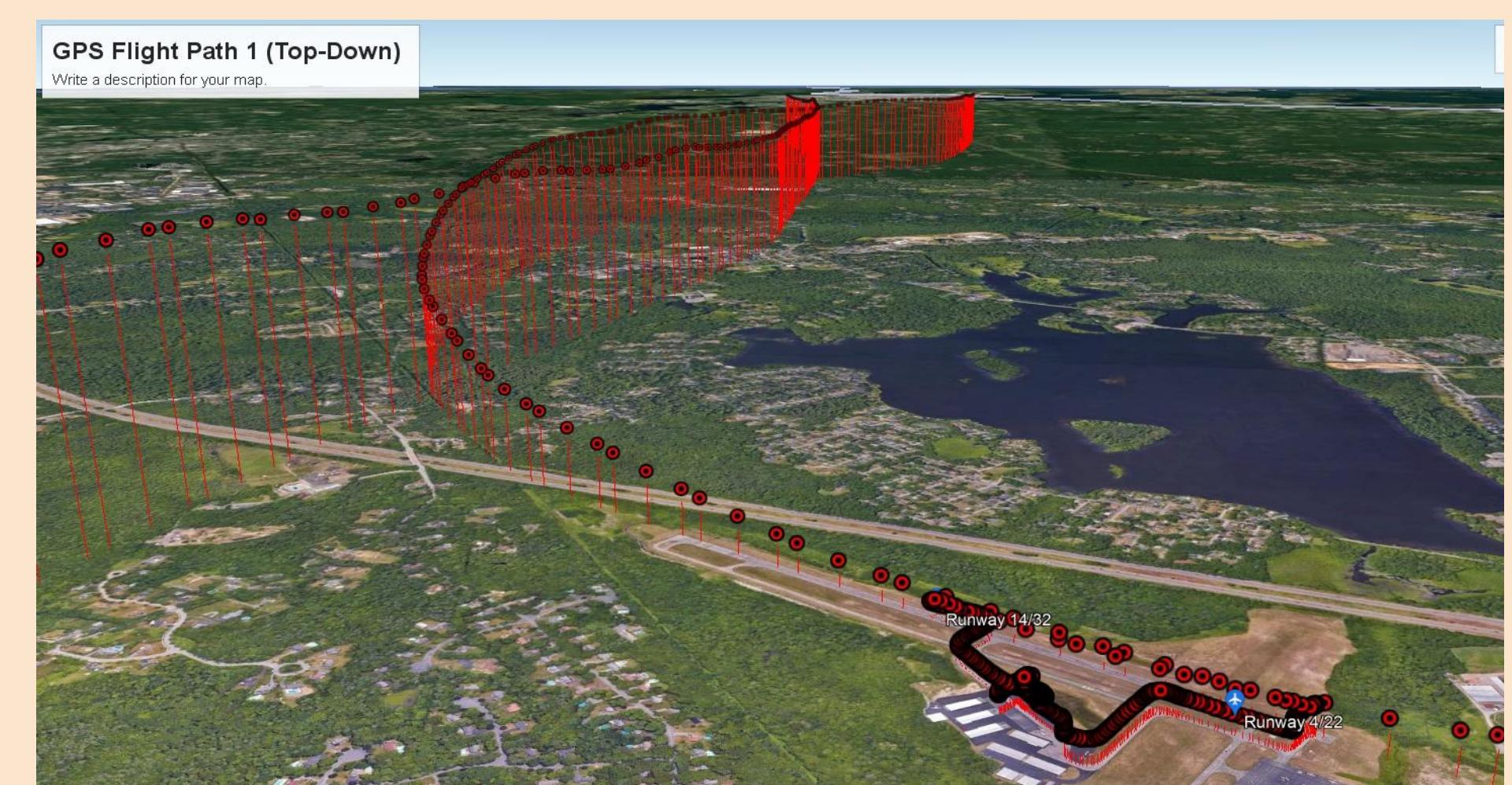
## Location & Motion Recording

- 📍 Record location & time → GPS
- ↔ Record acceleration → Accelerometer (IMU)
- 🔄 Record orientation → Gyroscope (IMU)
- 🎛️ Read & record dials → Image Processing



## 3D Simulation

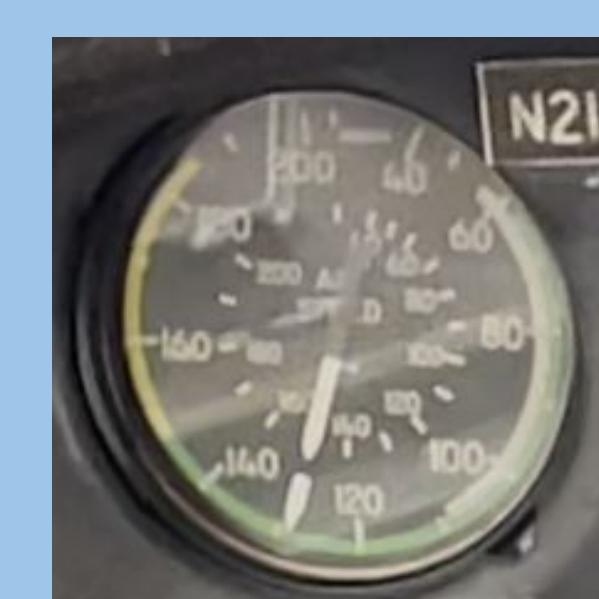
Google Earth & X-Plane



## Goals

- Fully functional in-flight recording system, including all the data that pilots are interested in
- Pilots can review a 3D simulation of their flights

## Dial Detection & Reading



200°

