Real-Time Embedded Project

SkyPulse UAV

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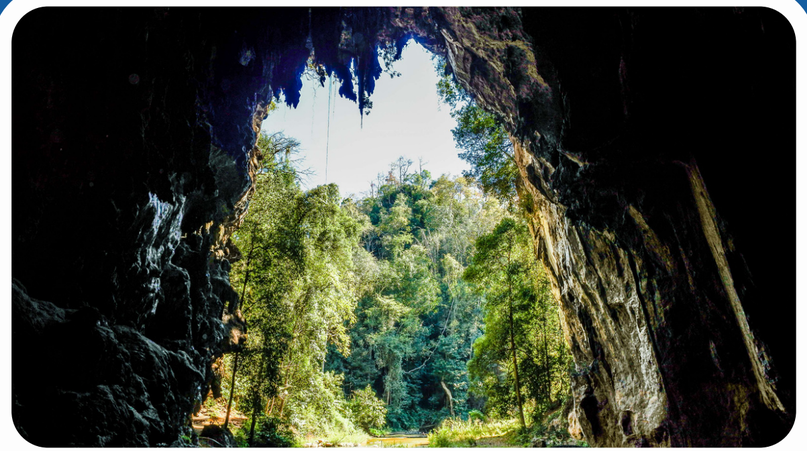
Areas of Application

Fire Detection

The drone system plays a crucial role in fire detection, especially in the timely identification of forest fires. This early detection and rapid communication mechanism significantly enhances the efficiency of fire response.

Post-disaster Search and Rescue

The efficiency of drones in search and rescue not only speeds up the rescue process but also enhances safety, making rescue operations more feasible in complex and hazardous environments.



Geological Prospecting

The drones can create accurate 3D maps of the caves. This capability is not only valuable for scientific research but also opens new possibilities for future geological exploration activities.

Project Statement

SkyPulse UAV is an innovative drone system project, specifically designed for emergency response and environment exploration. Combining advanced real-time data processing with intelligent navigation technologies, this system is adept at efficiently performing tasks like fire detection, terrain exploration, and post-disaster rescue.

Real-Time Data Collection

Equipped with thermal imaging cameras and LiDAR Detection Ranging Sensor. SkyPulse UVA captures and analyzes critical environmental data in real time and transmits information back to the control centre.

Autonomous Navigation

Its intelligent obstacle avoidance system allows it to navigate safely in complex environments. It processes data in real-time, enabling swift analysis and decision-making, and enhancing task efficiency.

Interactive User Interface

Provides a user interface with real-time data feedback, enabling operators to quickly adjust mission strategies and flight paths.

SkyPluse
UAV

THANK YOU!

Github Display

SkyPulse UVA Repository