Drone AI

Problem Statement:
Augment a drone with AI.

Overview

In this project, you and your team will explore the world of autonomous drones! You should aim to create algorithms that will enable Tello drones to make intelligent decisions in-flight. The problem statement is intentionally brief because there's loads of ways to go about this - feel free to be creative and build something novel!

We'll be looking for functionality and novelty in projects, as well as the quality of the presentation's explanation of the challenges the team overcame in designing and building their algorithms.

Some Inspiration

Here's an example setup for a functional autonomous drone AI:

1. **Video Stream Input**: Capture live video feed from the Tello drone.
2. **Image Processing and Feature Extraction**: Use OpenCV to identify features in the video feed (e.g., detecting objects or edges).
3. **Decision Logic**: Develop decision rules for the drone's navigation based on detected features, guiding it to move, avoid obstacles, or follow specific objects.
4. **Testing and Iteration**: Deploy the algorithm on the drone, test in real scenarios, and refine based on observed performance.

Resources

There are some great resources out there for helping you get started with the Tello drones. In general, you can control them over wifi using the Tello app, or with a python library.

- [Tello SDK 2.0 User Guide.pdf](#)
- https://github.com/dji-sdk/Tello-Python
- https://github.com/damiafuentes/DJITelloPy <- this is my favourite

For help contact:
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