**OCUFLY**

Presented by:

Team Deku

Members:

James Faber, Matthew Hale, Ernest Jackson, Jordan Shellhorse, Joshua Stalvey, Tyler Vance, Tianna Vazquez

**Summary:**

Ocufly will be a software that will be offered to government agencies such as fire departments and police departments. The software will allow compatible drones with cameras to be able to survey a scene and detect what objects are there and potential hazards associated with those objects.

**Narrative:**

We wish to use this software so that public servants can remain safe and still gather critical information about a scene that they are approaching and they are unsure if there are unknown safety hazards such as physical threats that may have a weapon on them. It could also be used in areas that have limited access such as mountainous terrain to search for individuals near reported crash sites. The size of the drone will allow it to get much closer and the software will be able to aid in recognizing if there are people in the area of the wreck. We plan to use open source python object recognition software that will act as a base for us to get started. We will then train the software to recognize certain objects such as guns and knives and potentially even be able to differentiate between civilians, firefighters, and police. The software will then be able to determine if it is viewing a hostile scene, a wreck scene, etc. This software will help increase safety for public servants as well as well as decrease search times for people in hazardous terrain.

**Budget:**

Total Cost: $233,300.00

Which includes $126,000 distributed between 5 mid-level developers, $30,000 for the senior developer/scrum master, and $26,000 for the product owner. The total cost also includes hardware priced at $1300 (Done: DJI Mavic Pro Platinum – 4k video, 30-minute flight time). With the final $50,000 coming from overtime, possible replacement drones, unforeseen software costs, and service fees.

**Personnel:**

Product Owner: Joshua Stalvey

Scrum Master: Matthew Hale

Software Developers: James Faber, Tyler Vance, Jordan Shellhorse, Tianna Vazquez, Ernest Jackson

**Hours to complete:**

60 workdays with 6 developers and 1 Product Owner

60\*8\*7 = 3,360 manhours

**Software:**

Python object recognition library

Opensource = free