

## **Development Project Proposal**

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## **Abstract**

In this document I propose to design an arial robot that will have a mission capability of observing marine species and habitats with its onboard sensors and control systems that will solve the problem of interference between machine/man and the daily life of the animal species. The operational domain for my project will be a Fixed-wing or rotor based aerial platform capable of carrying payloads. This will allow the end user to carry sensors for imagery capture technology. The subsystems and critical elements for my design will include a power plant, Command and Control, some form of a mobile ground control, Sensor Package with a Launch and recovery explanation for the unmanned system. Embedded in these subsystems I will research what new technology is being developed that could potentially benefit from deep learning technology to improve upon the existing autonomous control system.

*Keywords:* Marine Conservation, robot, aerial vehicles, drones, UAS platforms, operations, launch and recovery, fixed wing, deep learning, autonomous control system