

## 6 Repository File Guide

A description of the various files contained in the repository and any modules they implement is documented in [2](#), [3](#), and [4](#).

Table 2: Description of each written code file in the repository that are run on the drone.

Folder	Filename	Description/Modules Implemented
src\DroneApp\src\algo_app\src	TopicInterface.py	Implements <a href="#">Algorithm Topic Interface</a>
src\DroneApp\src\algo_app\src	AlgorithmApp.py	Implements <a href="#">Algorithm Manager App</a>
src\DroneApp\src\algo_app\src	MainPI.py	Implements <a href="#">Main Algorithm Module</a> for the Raspberry Pi platform. This module is run on the physical drone.
src\DroneApp\src\algo_app\src	MainSITL.py	Implements <a href="#">Main Algorithm Module</a> for the SITL platform. Used for testing.
src\DroneApp\src\algo_app\src	MapperApp.py	Implements <a href="#">Mapper App</a> .
src\DroneApp\src\algo_app\src	PathPlanApp.py	Implements <a href="#">Path Plan App</a> .
src\DroneApp\src\fsm_app\src	ServiceInterface.py	Implements <a href="#">DDC Service Interface</a> .
src\DroneApp\src\fsm_app\src	TopicInterface.py	Implements <a href="#">DDC Topic Interface</a> .
src\DroneApp\src\fsm_app\src	AbstractState.py	Contains an abstract base class with the interface of <a href="#">Operation States</a> .
src\DroneApp\src\fsm_app\src	BasicStates.py	Implements of all operation states specified in the SRS, inheriting and the interface specified in <a href="#">Operation States</a> .
src\DroneApp\src\fsm_app\src	MainPI.py	Implements <a href="#">Main DDC Module</a> for the Raspberry Pi platform.
src\DroneApp\src\fsm_app\src	MainSITL.py	Implements <a href="#">Main DDC Module</a> for the SITL platform. This module is used for testing.
src\DroneApp\src\fsm_app\src	OperationManager.py	Implements <a href="#">Operations Manager</a> .
src\DroneApp\src\fsm_app\src	Params.json	Stores height parameters for reload during reboot.

Table 3: Description of each written code file in the repository that is run on both the drone and Operator’s PC.

Folder	Filename	Description/Modules Implemented
src\Utils	Common.py	Contains the implementation of the enumerated types <code>c_UserError</code> and <code>c_HealthStatus</code> .
src\Utils	MessageSocket.py	Implements <a href="#">Message Socket</a> .
src\Utils	VisionApp.py	Implements <a href="#">Vision App</a> for both the Raspberry PI and PC platforms.
src\Utils	Segmenters.py, Classifier.py	Contain routines used by VisionApp.py.
src\Utils	Camera.py, Classifier.py	Implements <a href="#">Drone Camera Operator Camera</a> .
test	-	This folder contains files that were used for conducting the unit tests.

Table 4: Description of each written code file in the repository that are run on the Operator’s PC.

Folder	Filename	Description/Modules Implemented
src\OperatorApp	MainUserInterface.py	Implements <a href="#">Main Interface Module</a> .
src\OperatorApp	UserInterface.py	Implements <a href="#">User Interface</a> .
src\OperatorApp	MapWindow.py, Stitch.py, DroneApp.ui	Contains routines used by UserInterface.py.