

UAVSynch

Product Manual

Real Time Path Synchronization



TABLE OF CONTENTS

| | |
|-----------------------------|---|
| 1. About UAVSynch | 3 |
| 2. Modes of Operation | 4 |
| 3. Licensing the UAV | 5 |
| 4. Registering the UAV | 6 |
| 5. Adding Tasks for the UAV | 7 |
| 6. Tracking the UAV | 8 |

About UAVSynch

- - - - X

We bring forth for you the smartest app of the decade, which allows you to register your licensed UAVs in a few simple steps, and have you control your UAV for simple recurring tasks. Using our custom built advanced machine learning techniques, the app automatically creates a path for the UAV to follow.

It is possible to add time boundations to your UAV, and considering it to be feasible, we provide a real time solution to your daily problems. You no longer need to manually control your UAVS to achieve simplistic tasks.

This complex algorithms minimize energy consumption and generate only optimal paths. We also verify the UAV state, such as necessary amount of battery/fuel, as well as the weather conditions prior to the flight as well as during the flight.

The app has been licensed by the Government of India, and has proven to be extremely safe, and according to collected statistics, safer than manually controlled.

Modes of Operation

- - - - X

There are two modes of operation

1. Manual
2. Automated

Manual

For the manual mode of operation, the UAV will be controlled by the user itself. The controls will be available on the app itself, based on the UAV specifications.

For the manual mode, there is a visual range restriction, and is not suitable for large scale operation of the UAVs.

The app shows warnings in case of any mishandling, and also supports safe-landing where, in case of emergency, the UAV goes into automatic mode and lands to a safe spot.

Automatic

In the automatic mode, the app handles all decision makings, controls the UAV without any supervision of the user.

This is especially useful if the task to be completed does not involve complex decision making.

Changing the mode

To change the mode, go to the Settings panel from the bottom bar, and choose Choose Mode. After proper authorization, you will be redirected to the page where you can choose one of the two modes.

The mode when switched to manual will take at least 3 minutes to switch.

Licensing the UAV

- - - - X

The UAV licensing is handled by the Government of India, and is not controlled by our systems.

We, however offer a request portal wherein you can request for a licensing and the concerned authorities will contact you in due time.

To request for a new license, you first need to add a UAV

⇒ Settings Panel → Add a UAV → Fill the Form (Leave License ID) blank

When prompted for Add Unlicensed, Tab Yes

This will add the UAV and make it active. Then from the Top Bar, tab on the Add License button.

⇒ Add License Button → Request For New License

This will redirect you to the request form.

Note After this step, the app is not responsible for any communication between the parties

After licensing, our system will take 1 hour - 24 hours to verify the license, depending on the traffic on our servers as well as the Licensing Agency's servers.

Registering the UAV

- - - - X

It is possible to register a UAV only after it has been registered.

After verification of the license is complete, you will see an Register option in the top bar. Tap on this to register your UAV.

⇒ Register → Add all the Details → Submit

After this, if the details are appropriate, you will be redirected to a page wherein you need to synchronize your UAV with the app. For this, you will require to connect both your UAVs and your phone to the internet.

The app will automatically detect the UAV and will initiate sync.

The syncing will take around 15 minutes. After this, the app will prompt this to initiate a test flight for the UAV, in order to check for any faults in the system. You can either run this now by choosing Run Now, or do this later by choosing Later.

The registration will not be completed without the last step.

You can run the test flight any time by clicking on the Register button in the top bar.

Adding Tasks for the UAV

- - - - X

For any UAV, the home page is a schedule of the current tasks assigned for the UAV. You can go to the home from any screen by tapping the Home button in the top bar.

In order to switch, from the Settings Panel, add switch to another UAV. You can assign nicknames to your UAVs for easy reference.

For adding a task, simply tap on the Add Task in the left bottom of the home screen.

For this, you will need to specify coordinates to the UAV. The coordinates can be absolute or relative.

In order to detect the current coordinates, you can press on the Get coordinates in the top bar in the Add Task Panel.

The path must be accurate and will be validated through a test run (if the path is smaller than a threshold and the task is recurring). Again the task will be confirmed only after validation.

You can also view the path being drawn, which can give you an idea of the path the UAV will be following.

After completing the path specifications, you can save it by tapping the Save Task at the end of the form.

You can modify any task at any time, by long pressing a task, and then choosing Edit from the context menu.

Tracking the UAV

- - - - X

The tracking panel will automatically show up if the UAV is running. However, can be manually triggered from the bottom bar, by pressing the Track UAV button.

The tracking panel will show the path of the UAV in real time.

It will also show the predicted path for the next 1 minute. There are multiple views in which you can view the path.

To switch views, tap on the Switch View button the bottom bar, and choose the desired view. The 3D view is the most informative, and shows all the statistics of the UAV path.

In order to view the current stats of the UAV, you can tap on the Show Statistics on the bottom of the Tracking Panel.

This shows all the details of the UAV, like the distance travelled, current fuel, heat generated, etc.

FOR MORE INFORMATION ABOUT UAVSynch
Visit <http://www.uavsynch.com>
