

# Dissertation Weekly Report

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Supervisor: Lus Filipe Teixeira

Thesis: *Visual-Inertial based autonomous navigation of an Unmanned Aerial Vehicle in GPS-Denied environments*

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## 1 Accomplishments

- Vanishing point detection in a video feed was improved with kalman filters and is almost concluded.
- Video stabilization method implementation was concluded.
- Started merging the two previous algorithms in order to obtain a more robust detection of the vanishing point.

## 2 Difficulties

- The stabilization module that was developed works fairly good with dataset that is being used but is yet to be tested with a video feed from the drone.
- The Kalman filters matrices were chosen based on a trial and error approach in order to determine the best values for the dataset that is being used.

## 3 Notes

- A meeting with the supervisor was scheduled for the 6th of April at 16:00 PM.