

Dissertation Weekly Report

May 1, 2015

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Supervisor: Lus Filipe Teixeira

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

1 Accomplishments

- The development of the navigation algorithm was initiated.
- A new drone was ordered due to an malfunction in the one that was being used up to this point.

2 Difficulties

- An additional control module was developed in order to stabilize the orientation of the drone. This was accomplished by adjusting the yaw of the drone based on whether the detected vanishing point was in the middle of the frame or not.
- The drone started malfunctioning due to a hardware problem in the ultrasound sensor.

3 Notes

- A meeting with the supervisor was scheduled for the 4th of May at 16:00 PM.