# Minutes

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## Summary

- 10 Minute Meeting

  - Found that the quadcopter interfaces with a ground station via MAVLink.

  - A new command sent as a part of the flight plan might work, there are some python scripts available, or we could break the code apart and see where that gets us.

- Lab time

  - PROBLEM: Zac will tell you that testing the quadcopter is not going to be easy. We're still trying to find a good way to test this thing.

  - Mission Planner 2 has been released. This seems to be the MP software we want to use.

  - All GPS and autopilot software works well. We probably *should not* modify code any more than we have to, instead preferring a "black box" approach

  - Two solutions have been proposed:

    - *RC Controller Automation Using Python:* The quadcopter will fly on a normal flight plan. The final command of the ArduPilot should leave the aircraft in a neutral, predictable position, say 5-10 in the air near a GPS coordinate, then turn over the control to a python automation script that simply mimics the commands necessary to land using the infrared control loop.

      - Pros: Less software implementation difficulty

      - Cons: Additional hardware or telemetry knowledge required

    - *GPS Coordinate Spoofing with Existing Control Systems:* The quadcopter will have another flight mode that was cloned from the LOITER command. False GPS longitudes and latitudes will be generated from the camera information, and passed into the existing LOITER control system.

      - Pros: More elegant, No extra Python hardware

      - Cons: Difficult to implement, accuracy concerns

- **Action Plan: Hunter, Hugh to Python, Rick, Ben, Zac to GPS Spoofing. Pursue each solution path until a clear solution emerges**

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