**What has been achieved?**

Problem niche.

Tentative solution.

Open-loop tests using ICLOCS for trajectory planning (single UAV agent transport, minimal actuator effort, obstacle avoidance).

Completed O/L tests: reduced runtime delays by supplying ICLOCS with analytical derivatives.

**What is yet to be done?**

Complete C/L Simulink tests with inbuilt agent model.

Complete C/L Simulink tests with ROS agent model.

Draft interim report (problem context, problem statement, literature review, proposed solution, completed work, next steps).

**What should be done for the interim report?**

Project Specification: what will the project deliver, motivations

Background: problem context, problem statement, literature survey.

Implementation: completed work, future work. State milestones, provide realistic estimate of completion dates, detail contingency plans

Evaluation Plan: details of tests for project deliverables, details of experiments for evaluating work with respect to literature results

Ethical, Legal, Safety Plan: detail any issues relating to the project

**Topics that can be discussed further in the interim report:**

Problem context: study aims and objectives, describe field of problem to study, state aims and objectives

Problem statement: describe niche of problem to study, maths formulation, state problem

Literature review: review new paper, draft survey findings

Proposed solution: study proposed solution(s) from November and fill in gaps, state solution

Completed Work: complete O/L tests, link to proposed solution. Complete C/L Simulink tests with inbuilt agent model - MPC controller connected to Simulink model of single UAV agent moving from A to B, minimizing actuator effort. Complete C/L Simulink with ROS tests - MPC controller connected to ROS-Pixhawk model of single UAV agent moving from A to B, minimizing actuator effort; end products: code for interface between MATLAB and ROS, documentation for using the interface.

Future work: *after proposed solution is established, review completed work; state work deficit and short/mid-term areas for investigation – 5-10 tasks between now and end of project*

**What needs to be done by this week?**

Day-by-day breakdown of deadlines.

Monday: Review new paper.

Tuesday: Draft this document. Type up review of new paper. Push through O/L tests. Push through C/L Simulink tests with inbuilt agent model. Update Markdown document.

Wednesday: Study aims and objectives. Draft problem context. Begin C/L Simulink tests with ROS.

Thursday: Study proposed solutions. Finalize the solutions. Push thru C/L Simulink tests with ROS.

Friday: Push thru C/L Simulink tests with ROS. Reflect on future work. Meeting with Eric and Ian – query project specification section of interim report*, safety and legal aspects of using ICLOCS IP*

Saturday: Push thru C/L Simulink tests with ROS. Do maths formulation for problem statement. Draft problem statement.

Sunday: Push thru C/L Simulink tests with ROS. Draft survey findings.

**What needs to be done by next week?**

Monday: Draft solution statement. Possibly Wednesday’s work.

Tuesday: Draft completed work. Draft future work and project plan. Discuss evaluation plan with Ian.

Wednesday: Draft evaluation plan. Draft Ethical, Legal, Safety Plan.

Thursday: Report editing.

Friday: Present draft to Eric and Ian.

Saturday:

Sunday: