**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/22/17 11:07 AM

End time: 5/22/17 11:14 AM

Christian Silva:

* What was done since the last scrum meeting?
* Became familiar with Carryover backlog contents.
* Reviewed Agile procedure.
* Reviewed Mingle procedure.
* What is planned to be done until the next scrum meeting?
* Decompose GPS User Story.
* Begin work on portion of GPS decomposition.
* What are the hurdles?
* Better understanding code used for GPS navigation.

Sean Monroe:

* What was done since the last scrum meeting?
* Became familiar with Carryover backlog contents.
* Reviewed Agile procedure.
* Reviewed Mingle procedure.
* What is planned to be done until the next scrum meeting?
* Decompose GPS User Story.
* Begin work on portion of GPS decomposition.
* What are the hurdles?
* Ensuring reliable GPS connections throughout testing.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/23/17 10:14 AM

End time: 5/23/17 10:20 AM

Christian Silva:

* What was done since the last scrum meeting?
* Created User Epics and decomposed them into user stories
* Met with product owner, reviewed and confirmed user stories
* What is planned to be done until the next scrum meeting?
* Begin working on user stories
* What are the hurdles?
* Better understanding code used for GPS navigation.

Sean Monroe:

* What was done since the last scrum meeting?
* Created User Epics and decomposed them into user stories
* Met with product owner, reviewed and confirmed user stories
* What is planned to be done until the next scrum meeting?
* Begin working on user stories
* What are the hurdles?
* Ensuring reliable GPS connections throughout testing.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/24/17 04:57:00 PM

End time: 5/24/17 05:12:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* I began working user stories #273, #263
* What is planned to be done until the next scrum meeting?
* Begin working on user story #264
* What are the hurdles?
* Learn integrating tkinter with commands for drone

Sean Monroe:

* What was done since the last scrum meeting?
* I began working on user stories #272, #262
* What is planned to be done until the next scrum meeting?
* Expand manual patch to extract usable GPS data
* What are the hurdles?
* No python Library and current Library is out of date

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/25/17 10:21:00 AM

End time: 5/25/17 10:43:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed Research Tkinter
* Continued research of integrating drone movements
* What is planned to be done until the next scrum meeting?
* Finish researching integration of drone movements
* Begin working on Flight controller GUI
* What are the hurdles?
* Learning integrating Tkinter commands with drone

Sean Monroe:

* What was done since the last scrum meeting?
* Successfully learned GPS data acquisition
* Discovered problem with magnetometer readings
* What is planned to be done until the next scrum meeting?
* Complete capture of all relevant sensor readings
* Begin work on code test flights
* What are the hurdles?
* Coding test flights will require testing multiple navigation and localization algorithms
* Localization and navigation may involve more sensors than altimeter, magnetometer and gps receiver.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/26/17 10:06:00 AM

End time: 5/26/17 10:17:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Began working on flight controller app
* What is planned to be done until the next scrum meeting?
* Continue flight controller app
* What are the hurdles?
* Learning Tkinter commands with drone

Sean Monroe:

* What was done since the last scrum meeting?
* Finished gps and sensor acquisition
* Began designing unit tests for each sensor
* What is planned to be done until the next scrum meeting?
* Continue working on unit tests for each sensor
* What are the hurdles?
* Magnetometer issues
* Ambiguous data type documentation in drone library

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/30/17 3:20:00 PM

End time: 5/30/17 3:22:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Continued working on flight controller app
* What is planned to be done until the next scrum meeting?
* Complete basic flight controls
* What are the hurdles?
* Learning Tkinter commands with drone

Sean Monroe:

* What was done since the last scrum meeting?
* Continued work on compass heading derivations
* What is planned to be done until the next scrum meeting?
* Begin sensor fault analysis and determine action.
* What are the hurdles?
* Continued magnetometer issues

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 5/31/17 10:06:00 AM

End time: 5/31/17 10:10:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Began testing GUI functionality regarding drone operation.
* What is planned to be done until the next scrum meeting?
* Continue working on flight controller functions and testing.
* What are the hurdles?
* Tkinter still unfamiliar and requires more exploration for fluent use.

Sean Monroe:

* What was done since the last scrum meeting?
* Completed compass heading derivations
* Began debugging faulty sensor data reception
* What is planned to be done until the next scrum meeting?
* Complete initial sensor fault analysis and determine action.
* Update Mingle entries and decompose currently- and future-planned user stories into required cards.
* What are the hurdles?
* Continued magnetometer issues
* Unfamiliar with Mingle

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/01/17 10:08:00 AM

End time: 6/01/17 10:22:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Included buttons and text input of GUI
* What is planned to be done until the next scrum meeting?
* Implementing functionality of testing scripts into GUI
* What are the hurdles?
* Tkinter still unfamiliar and requires more exploration for fluent use.

Sean Monroe:

* What was done since the last scrum meeting?
* Settled on configuration least likely to cause interrupted magnetometer data.
* Mingle user stories decomposed into tasks for current stories.
* Navigation algorithm created, based on one acquired from a robotics textbook.
* Navigation script task begun.
* What is planned to be done until the next scrum meeting?
* Finish navigation script.
* Test navigation script at least once.
* What are the hurdles?
* Obtaining navigation algorithms - pseudo code doesn’t seem to be publicly available for any advanced activity.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/02/17 10:00:00 PM

End time: 6/02/17 10:08:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Completed first version of drone GUI
* Tested text-input drone commands through GUI while stationary and in flight.
* What is planned to be done until the next scrum meeting?
* Complete testing and debugging of first GUI version
* What are the hurdles?
* Unfavorable weather/testing conditions hinder progress of this task

Sean Monroe:

* What was done since the last scrum meeting?
* Finished and tested navigation algorithms used in scripts
* Began debugging navigation script
* What is planned to be done until the next scrum meeting?
* Decompose previous test into simpler tests
* Develop sensor data preprocessing methods
* What are the hurdles?
* Irregular sensor data upsets testing, and weather conditions obscure real behaviors during testing.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/05/17 10:17:00 PM

End time: 6/05/17 10:25:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* No work done 6/02/17
* What is planned to be done until the next scrum meeting?
* Complete testing and debugging of first GUI version
* What are the hurdles?
* Unfavorable weather/testing conditions hinder progress of this task

Sean Monroe:

* What was done since the last scrum meeting?
* No work done 6/02/17
* What is planned to be done until the next scrum meeting?
* Decompose previous test into simpler tests
* Develop sensor data preprocessing methods
* What are the hurdles?
* Irregular sensor data upsets testing, and weather conditions obscure real behaviors during testing.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/06/17 10:44:00 PM

End time: 6/06/17 10:57:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Organized GUI layout and flight controller code
* Started research into integrating a map into GUI
* What is planned to be done until the next scrum meeting?
* Controller testing and verification
* What are the hurdles?
* Unfavorable weather/testing conditions hinder progress of this task

Sean Monroe:

* What was done since the last scrum meeting?
* Incorporated outlier analysis of sensor data
* What is planned to be done until the next scrum meeting?
* Testing navigation scripts
* What are the hurdles?
* Irregular sensor data upsets testing, and weather conditions obscure real behaviors during testing.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/07/17 10:00:00 PM

End time: 6/07/17 10:06:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Completed version 1 flight controller
* What is planned to be done until the next scrum meeting?
* Begin real-time sensor data displays
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Compared, tested, and debugged navigation scripts
* What is planned to be done until the next scrum meeting?
* Complete simple navigation script
* What are the hurdles?
* Weather conditions obscure real behaviors during testing.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/08/17 10:06:00 PM

End time: 6/08/17 10:12:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Completed real-time battery status feature
* What is planned to be done until the next scrum meeting?
* Real-time altitude feature
* What are the hurdles?
* No known hurdles at this moment

Sean Monroe:

* What was done since the last scrum meeting?
* Completed a simple script using low-level movement commands
* What is planned to be done until the next scrum meeting?
* Incorporate accelerometer sensing into motion, and begin testing
* What are the hurdles?
* Difficult to test in-flight features given weather conditions and few open areas to meet the user story requirements.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/09/17 10:11:00 PM

End time: 6/09/17 10:22:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Completed real-time altitude display feature
* Improved existing GUI design
* What is planned to be done until the next scrum meeting?
* Integrate GUI with existing navigation scripts
* What are the hurdles?
* No known hurdles at this moment

Sean Monroe:

* What was done since the last scrum meeting?
* Tested more complex movement algorithms using accelerometer
* Began readying user stories and tasks to accommodate a merge task
* What is planned to be done until the next scrum meeting?
* Merge existing navigation code into existing GUI code
* Properly assimilate information flow to be ready for final UML diagram designs
* Decompose two more epics into stories and tasks to be ready for next sprint
* What are the hurdles?
* Considerable delay in completing current user stories hindering and confusing efforts to maintain proper documentation of efforts

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/12/17 10:02:00 AM

End time: 6/12/17 10:16:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed human-readable sensor display
* Began working with user story diagrams
* What is planned to be done until the next scrum meeting?
* Complete user story diagrams
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Integrated, refactored, navigation scripts with GUI
* Completed UML documentation for task-265
* What is planned to be done until the next scrum meeting?
* Further decompose user stories and backlog
* Prepare user stories and tasks for Sprint meeting
* Add drone live video feed to GUI
* What are the hurdles?
* No known hurdles

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/13/17 12:17:00 PM

End time: 6/13/17 12:30:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Completed user story diagrams for documentation
* Researched integrating a map window with the GUI
* What is planned to be done until the next scrum meeting?
* Select new user story
* Create tasks for selected user story
* Create diagrams for selected user story
* What are the hurdles?
* At the moment, no known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Decomposed ROI Epic to composite stories
* Derived tasks to be done in ROI stories, assigned priority and points
* Explored erroneous camera activity and attempted to debug it
* What is planned to be done until the next scrum meeting?
* Finalize user stories and tasks
* Sprint meeting for assigning tasks
* Begin work on next task
* What are the hurdles?
* I’m working at home today (sick) and won’t have access to drone sensors
* Will have to work on tasks that don’t require a drone connection

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/14/17 03:43:00 PM

End time: 6/14/17 03:47:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Began GPS map, user story #289, documentation
* What is planned to be done until the next scrum meeting?
* Complete documentation for user story #289
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Completed Pathing algorithm research task #300
* Began task #301 - waypoint queue class
* What is planned to be done until the next scrum meeting?
* Begin UML documentation of story #292 - Path determination
* What are the hurdles?
* A little sick, hindering performance a bit

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/15/17 10:06:00 AM

End time: 6/15/17 10:12:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed use case and sequence diagram for user story #289
* Began debugging and testing Goompy GPS module
* What is planned to be done until the next scrum meeting?
* Complete Goompy testing and begin user story tasks
* What are the hurdles?
* Mac OSX issue installing PIL, support is limited and no longer supported.

Sean Monroe:

* What was done since the last scrum meeting?
* No progress for current task
* What is planned to be done until the next scrum meeting?
* Begin UML documentation of story #292 - Path determination
* Continue task #301 - waypoint queue class
* What are the hurdles?
* No known hurdles

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/16/17 10:08:00 AM

End time: 6/16/17 10:28:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Investigated Python module for GUI map display requirement
* Acquired static google map
* What is planned to be done until the next scrum meeting?
* Begin working on task-309
* Investigate Tkinter canvas widget for map box development
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Began documentation of story #292 - Path Determination
* Began working on task #302 - Obtaining Targets
* Created and began defect task #310 - Separation of GUI and drone initialization
* What is planned to be done until the next scrum meeting?
* Complete corrections for documentation of story #265
* Complete task #310
* Complete documentation of #292
* What are the hurdles?
* Difficulty with thread-safe global drone and navigator objects
* Live output label

Attendees: Christian Silva, Sean Monroe

Start time: 6/19/17 10:00:00 AM

End time: 6/19/17 10:10:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Began task-309
* What is planned to be done until the next scrum meeting?
* Complete task-309
* Begin task-294
* What are the hurdles?
* Issues with image overlaying with Tkinter
* Appropriate drone image replacement for live drone map imaging

Sean Monroe:

* What was done since the last scrum meeting?
* Completed task #310
* Finished first drafts of UML diagrams for Path Planning story
* Continued debugging drone camera access
* What is planned to be done until the next scrum meeting?
* Begin task #296 - Dynamic Targeting
* Continue task #287 - Live Video Feed
* What are the hurdles?
* The weather prohibits further work on story #292

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/20/17 10:10:00 AM

End time: 6/20/17 10:15:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed task-309
* Began task-294
* What is planned to be done until the next scrum meeting?
* Complete task-294
* Begin task-295
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Completed tasks #287, #296
* Began task #308
* What is planned to be done until the next scrum meeting?
* Finish task #308
* Begin task #297
* What are the hurdles?
* Volatile weather can potentially interfere with testing of task #297

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/21/17 10:12:00 AM

End time: 6/21/17 10:15:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Troubleshooting opencv3 installation for live video feed GUI display
* What is planned to be done until the next scrum meeting?
* Complete task-294
* Begin task-295
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Installed OpenCV 3 on both teammates’ computers
* Verified installations
* What is planned to be done until the next scrum meeting?
* Finish task #308
* Begin task #297
* What are the hurdles?
* Set back with OpenCV problems, now back on track

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/22/17 10:15:00 AM

End time: 6/22/17 10:25:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Continued to troubleshoot live video display issue with mac
* Reverted GUI updates that were conflicting with live video display
* What is planned to be done until the next scrum meeting?
* Continue with completion of task-294
* Complete task-295
* What are the hurdles?
* After reversion of GUI, video display within GUI area is functional. No new

hurdles identified.

Sean Monroe:

* What was done since the last scrum meeting?
* Assisted in OpenCV troubleshooting
* Created GUI improvement task #311
* Continued task-308
  1. Removed features not required by task
  2. Enabled modular vision function settings
  3. Completed color recognition
* What is planned to be done until the next scrum meeting?
* Complete task-308
* Begin task-307
* What are the hurdles?
* Image recognition is computationally expensive, and current hardware is having trouble running it smoothly.

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/23/17 10:38:00 AM

End time: 6/23/17 10:40:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed task-294
* What is planned to be done until the next scrum meeting?
* Begin task-295
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Researched shape recognition
* What is planned to be done until the next scrum meeting?
* Complete task-308
* Begin task-307
* What are the hurdles?
* Same computation limitations
* Weather may affect development of tasks 297+307

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 6/26/17 10:00:00 AM

End time: 6/26/17 10:05:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Working on implementation of capturing map click events and converting pixel

coordinates to gps coordinates that will be used by the drone.

* Began implementing type of route selection (e.g waypoints or rectangle region of

interest)

* What is planned to be done until the next scrum meeting?
* Complete implementation of map click conversions and implementation of type of

route selection buttons.

* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Continued work on task #308
* What is planned to be done until the next scrum meeting?
* Finish task #308
* Begin task #307
* What are the hurdles?
* No known hurdles

Attendees: Christian Silva, Sean Monroe

Start time: 6/27/17 10:05:00 AM

End time: 6/27/17 10:10:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed implementation of area boxing feature that allows user to select a pair

of vertices and algorithm completes the rectangle region.

* Began working on algorithm for intelligent generation of drone flight path.
* What is planned to be done until the next scrum meeting?
* Complete algorithm for intelligent generation of drone flight path.
* Begin implementation of user path selection rendering.
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Finished task-308
* Merged UI changes to all active tasks
* What is planned to be done until the next scrum meeting?
* Begin task-312
* What are the hurdles?
* Becoming familiar with git manual git merge conflict resolution delayed progress since last scrum
* Considering modifying current actors to include a new control object

Attendees: Christian Silva, Sean Monroe

Start time: 6/28/17 10:00:00 AM

End time: 6/28/17 10:15:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Continued working on algorithm that will intelligently produce a list of vertices that

the drone will navigate.

* Created drone image for live static map display
* What is planned to be done until the next scrum meeting?
* Complete all debugging of intelligent path generation algorithm.
* What are the hurdles?
* Path orientation unknown. Orientation may be East to West/West to East or

North to South/South to North

Sean Monroe:

* What was done since the last scrum meeting?
* Began task #312
* What is planned to be done until the next scrum meeting?
* Continue task #312
* What are the hurdles?
* None

Attendees: Christian Silva, Sean Monroe

Start time: 6/29/17 10:00:00 AM

End time: 6/29/17 10:10:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed debugging of algorithm to produce list of vertices the drone will

navigate, derived from user map selections.

* What is planned to be done until the next scrum meeting?
* Begin working on implementation of rendering the vertices and edges that will

allow the user to view that current path the drone will navigate.

* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Continued task #312
* What is planned to be done until the next scrum meeting?
* Continue task #312
* What are the hurdles?
* None

Attendees: Christian Silva, Sean Monroe

Start time: 6/30/17 10:10:00 AM

End time: 6/30/17 10:15:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Implemented region of interest, row-wise, path rendering from user map

selections.

* What is planned to be done until the next scrum meeting?
* Work on single selection waypoint path rendering after user initiates drone start

path.

* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Continued task #312
* What is planned to be done until the next scrum meeting?
* Complete task #312
* Complete task #315
* Begin task #316
* What are the hurdles?
* None

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 7/03/17 1:00:00 PM

End time: 7/03/17 1:10:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Continued working on waypoint path rendering from task-314
* What is planned to be done until the next scrum meeting?
* Complete waypoint path rendering from task-314
* Completed debugging of path rendering from task-314
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Completed task #312
* Began task #318
* What is planned to be done until the next scrum meeting?
* Continue task #318
* What are the hurdles?
* Odd bugs in simulation, possibly due to race conditions

Attendees: Christian Silva, Sean Monroe

Start time: 7/04/17 12:00:00 PM

End time: 7/04/17 12:05:00 PM

Christian Silva:

* What was done since the last scrum meeting?
* Debugging waypoint path rendering that currently does not properly connect

edges to corresponding vertices

* What is planned to be done until the next scrum meeting?
* Complete all debugging of waypoint path rendering inconsistencies.
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Continued task #318
* What is planned to be done until the next scrum meeting?
  + Nothing
* What are the hurdles?
* None known

Attendees: Christian Silva, Sean Monroe

Start time: 7/05/17 10:00:00 AM

End time: 7/05/17 10:08:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Did not work on task since the last scrum meeting.
* What is planned to be done until the next scrum meeting?
* Complete the implementation of additional features that include drone state and

rendering of flight path from user map selections.

* What are the hurdles?
* Testing of algorithms dependent on favorable weather conditions for drone flight

Sean Monroe:

* What was done since the last scrum meeting?
* Did not work on task
* What is planned to be done until the next scrum meeting?
* Finish task #318
* Complete task #316
* Begin task #307
* What are the hurdles?
* None known

Attendees: Christian Silva, Sean Monroe

Start time: 7/06/17 10:01:00 AM

End time: 7/06/17 10:04:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Implemented additional features to GUI. The current state of the drone(e.g. flying,

hovering), and rendering of path selections.

* What is planned to be done until the next scrum meeting?
* Testing drone flight algorithm from current drone gps location to a user selected

map location.

* What are the hurdles?
* Unfavorable weather conditions may affect ability to perform tests.

Sean Monroe:

* What was done since the last scrum meeting?
* Completed task-318
* Completed task-316
* Began/tested task-307
* What is planned to be done until the next scrum meeting?
* Continue on task-307
* What are the hurdles?
* Testing requires constant trips between lab and outdoor testing area, delays troubleshooting
* Inconsistent GPS readings causing intermittent testing failures

Attendees: Christian Silva, Sean Monroe

Start time: 7/7/17 10:00:00 AM

End time: 7/7/17 10:04:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Added hotfix drone state, “flying,” “hovering” or “landed”
* Testing drone flight algorithm from current drone gps location to a user selected

map location.

* What is planned to be done until the next scrum meeting?
* Complete all testing of current format GUI
* What are the hurdles?
* Correction of important bugs in interface reduced time to test drone flight.

Sean Monroe:

* What was done since the last scrum meeting?
* Troubleshooted map problems
* Adjusted code to accommodate fixes
* What is planned to be done until the next scrum meeting?
* Complete task-307
* Complete task-317
* Record videos
* What are the hurdles?
* Heavy setbacks after locating severe bugs in old code

**Daily Scrum Meeting Minutes:**

Attendees: Christian Silva, Sean Monroe

Start time: 7/10/17 10:07:00 AM

End time: 7/10/17 10:11:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Tested GUI interactions
* What is planned to be done until the next scrum meeting?
* Documentation for slide presentation
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Tested task #307 - Drone Flight
  1. Two unsuccessful tests
* Started task #317 - Refactoring and cleaning
  1. Only gui.py file
  2. Others needs to be looked at
* What is planned to be done until the next scrum meeting?
* Finalize Sprint Meeting documentation for Sprint 4
* Review and update User Story documentation
* Begin Slide Presentation
* What are the hurdles?
* Task #317 took longer than expected, delayed further testing of #307

Attendees: Christian Silva, Sean Monroe

Start time: 7/11/17 10:00:00 AM

End time: 7/11/17 10:04:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Began working on slides/poster documentation.
* Began corrections to past user story and updated existing user story with

additional feature.

* What is planned to be done until the next scrum meeting?
* Continue working on documentation for poster/slides and final document
* Complete uml user story documentation
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* UML diagrams completed for user story #292 - Multiple Waypoint Navigation
* Began UML diagrams for user story #290 - Integrate Sensor Data into Controls
* What is planned to be done until the next scrum meeting?
* Complete UML diagrams for user story #290 - Integrate Sensor Data into Controls
* Create several functions for testing task #307 - Drone Flight
* Continue task #319 - Refactoring and Cleaning
  1. Only gui.py has been done so far
  2. Navigator.py and viewer.py require attention
* What are the hurdles?
* Cleaning and refactoring requires attention to older user stories’ UML diagrams in case they’re modified. This delays progress with presentation/poster/document development.
* A large refactoring task is very likely to cause merge conflicts

Attendees: Christian Silva, Sean Monroe

Start time: 7/12/17 10:00:00 AM

End time: 7/12/17 10:04:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Completed uml user story documentation
* Continued working on slides/poster documentation
* What is planned to be done until the next scrum meeting?
* Continue working on all final documentation for submission.
* What are the hurdles?
* No known hurdles.

Sean Monroe:

* What was done since the last scrum meeting?
* Completed UML documentation for story #290
* Created new testing function for get\_tar in navigator.py
* Completed refactor/cleaning of AgriDrone.py and gui.py
* What is planned to be done until the next scrum meeting?
* Test new get\_tar function
* Refactor/clean navigator.py and viewer.py to complete task #317
* Begin working on presentation
* What are the hurdles?
* Getting the drone to fly is much more difficult than it appears

Attendees: Christian Silva, Sean Monroe

Start time: 7/13/17 10:00:00 AM

End time: 7/13/17 10:04:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Continued working on slide/poster documentation
* Continued working on final document.
* Making corrections to all use case diagrams
* What is planned to be done until the next scrum meeting?
* Complete slide/poster documentation
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Continued task #317 - refactored gui.py
* Started refactoring navigator.py
* What is planned to be done until the next scrum meeting?
* Finish refactoring navigator.py
* Finish refactoring viewer.py
* What are the hurdles?
* Some algorithms used are difficult to reduce without changing the algorithm itself, so trial and error is necessary to be sure I’m not breaking any code.

Attendees: Christian Silva, Sean Monroe

Start time: 7/14/17 10:00:00 AM

End time: 7/14/17 10:04:00 AM

Christian Silva:

* What was done since the last scrum meeting?
* Continued making corrections to use case diagrams
* What is planned to be done until the next scrum meeting?
* Complete use case diagrams and slides/poster material.
* What are the hurdles?
* No known hurdles

Sean Monroe:

* What was done since the last scrum meeting?
* Finished task#317
  1. Finished refactoring navigator.py
  2. Finished refactoring viewer.py
  3. Cleaned up code and directory structure
* Began working on the Poster for Monday
* What is planned to be done until the next scrum meeting?
* (This is the final scrum) Finish the poster
* What are the hurdles?
* No hurdles