Agenda 3/5

Date: 3/5/24

Time: 2:00pm - 3:00pm

Attendees

- [@Benjamin Ireland](#)
- [@Finlay Cross](#)
- [@Raith Fullam](#)
- [@Ronniel Padua](#)
- [@Se Hyun Kim](#)

Apologies

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Agenda Items & Notes

Objective

This meeting is used to share announcements and project updates. Please add your weekly updates to the agenda below.

- **Announcements**
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- **Topic 1 - Control**
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- **Topic 2 - Ronniel's GUI**
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- **Topic 3 - Network Integration**

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- **Topic 4 - Previous FYP Report**
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- **Network**
  - Catkins doesn't work, Colcon is new build tool. Need to update
  - Queues
- **Control**
  - Updated lifecycle to be event based, not polling (can still poll)
  - Combined a few files into each other because the functionality was similar
    - On this, also got rid of some redundant files
  - Changed the PID system
    - To use in house ROS2 libraries
    - Simplified 14 "constraints" taken down to 4 that were actually used, maybe actually only 3
  - Planned for new control method, previously was leader based. We have brainstormed how else to do this.
    - Vector based
    - Virtual Leader
    - Everything is follower control
  - Ask about simplifying formations for scalability.
    - Set shapes, Triangle, Squares
    - Tradeoff is swarm is less configurable, but config files and control will be simpler.
  - Px4 has moved away from mavros to XRCEDDS
    - Still supports mavros though
- **Application**
  - Have successfully extracted gps information from gps
    - Need to outdoor test to see if it fully functions
- **GUI**

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- **General**
  - Raith is away next week