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Summary

- Implemented demo of mesh network with visualizing feature.
- Gave a mid presentation.
- Wrote a paper draft.

What BTT completed this week

- Soonchan Kwon
 - Order SMA antenna adapter.
 - Troubleshoot a lot of bugs in LoRa mesh network codes.
 - Read up on and refactored code of the open source library, RadioHead which manage radio communication and mesh.
 - Refactored code of UAV, ground, gateway and Node server to visualize mesh network for optimizing the performance.
 - Prepared a QnA of mid presentation.
 - Inspected the citation formats of paper draft.
 - Wrote the LoRa part of paper methodology section.
- Gihwan Kim
 - Prepared a presentation.
 - Read up on references of introduction and related works sections for paper works.
 - Wrote introduction and related works sections for paper works.
- Nahyeong Kim
 - Established a guideline for mid-presentation.
 - Made presentation materials about our project and wrote the script.
 - Made mid-presentation about our project, introduction and methodology.
 - Researched the several anti-drone technologies and organized the pros and cons of each method.[1-6]

- Nawon Kim
 - Prepared a presentation materials about methodology and progress.
 - Wrote a script about methodology, progress and future.
 - Practiced and made a mid-presentation.
 - Read up on features and examples of YOLOv4-tiny.
 - Contacted the people who did the related study to obtain the UAV dataset.

Things to do by next week

- Design field experiment process.
- Implement the code how to resize image resolution of ESP32 WROVER Board.
- Implement the TensorFlow model for UAV detection to run on ESP32 WROVER Board.
- Build hardware after SMA antenna adapter is arrived.
- Test communicatable max distance with hardware from indoor.
- Implement the code to record the network performance from field experiment.
- Make the field experiment plans.

Problems or challenges

- How to design field experiment process.
- How to implement the TensorFlow model for UAV detection to run on ESP32 WROVER Board.
- How to implement the code how to resize image resolution of ESP32 WROVER Board.
- How long will it be possible to communicate with hardware we built.

References

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