

FOURTH MEETING MINUTES

Date: 25/3/2025

Time: 20:00 PM

Facilitator: Brain Ma

IN ATTENDANCE

Brian Ma, Xingyu Luan, Xiang Peng, Yifan Wu, Xu Ben, YuQiao Xin, Yuk Lam

AGENDA

The primary objectives of this meeting were:

1. Task allocation and project documentation structure
2. Discussion on concept narrowing and requirement clarification
3. Technical focus: beacon signal analysis and multi-beacon algorithm
4. Planning for upcoming experiment setup

DISCUSSION AND DECISIONS

1. Project Task Allocation

Responsibilities confirmed:

FFBD energy input: Brian Ma

OneDrive & GitHub repository structure: Yoyo Lam

Concept narrowing and decision justification: Xingyu Luan

Requirement list (as image): Yuqiao Xin

Feedback plan: Xingyu Luan

2. Signal Data Analysis

Team will analyze existing beacon signal data to understand statistical noise characteristics and pole-related behavior.

3.Multi-Beacon Algorithm Development

The team will brainstorm a new algorithm avoiding hardware modifications.

Suggested methods include pulse presence/absence, gain control, or assigning beacon ID.

4.Supervisor Communication

Brian Ma and Yoyo Lam will report the proposed algorithm to Rob in the next weekly meeting to gain approval before experimental implementation.

5.Experiment Planning

Once the algorithm is approved, the team will begin designing an experiment validation method.

6.Hardware Setup

The Nucleo board (currently with Yoyo Lam) will be set up for multi-beacon testing. Guidance will be requested from Arthur

SUMMARY AND CONCLUSIONS

- Clear team task allocations for documentation and modeling tasks were established.
- Technical focus has shifted to multi-beacon algorithm development without hardware changes.
- Rob's input will be sought before designing the experiment.
- Beacon signal characteristics analysis is underway to guide implementation.
- Hardware preparation (Nucleo board) is initiated.

NEST MEETING

- The next meeting is scheduled for **March 28th at 2:00 PM.**