6th Weekly Report

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To: include all managers
(e.g., ematson@purdue.edu, ahsmith@purdue.edu, lhiday@purdue.edu and lee3450@purdue.edu)

From: GO duck

- Gwangyeok Kim (205334@jnu.ac.kr)
- Keonwoo Lim (kwlim1120ss@kyonggi.ac.kr)
- Sujee Noh (204654@jnu.ac.kr)
- Younguk Maeng (aod8948@soongsil.ac.kr)

1 Summary

- Have determined testing location in campus, checked communication status in each location roughly.
- Have conducted mock testing in Prof. Smith's farm and figured out approximate maximum distance of both devices in plain area.
- Have revised introduction chapter, working on related work, methodology and implementation chapter.

2 What GO duck completed this week

- Team:
  - Performed mock testing using several scenarios which change position of end and middle node. Determined scenario and location in which wood street parking garage, grant street parking garage, 504 northwestern avenue and MSSS to NW garage tunnel.
  - Went out to Prof. Smith's farm for identifying maximum distance in ideal environment for signal. Team figured out approximate maximum disitance between each goTenna.
  - Wrote methodology, implementation chapters to submit the paper to Minji for revising.

- Gwangyeok Kim:
  - Revised the introduction and wrote the abstract chapter
  - Fixed 2 LILYGO ESP32 boards by soldering
  - Tested both goTenna and Meshtastic devices on campus
  - Been looking for a way to access packets sent from goTenna Pro X

- Keonwoo Lim:
  - Wrote experiment chapter.
  - Came up with the scenario for the test in the farm and campus. - Organized data logs for goTenna Pro X and

- Sujee Noh:
  - Completed writing methodology and related work chapters
  - Conducted testing of goTenna in Prof. smith's farm
  - Organized collected data from semi-testing to determine the test location

- Younguk Maeng:
  - Conducted testing of goTenna in Prof. smith's farm
  - Conducted testing of goTenna and Meshtastic in Purdue university
  - Organized collected data from testing to compare goTenna and Meshtastic objectively
  - Made presentation slides for final

3 Things to do by next week

- To visualize the data collected from testing in campus and plain area
- To gather data in the farm of Prof. Smith for comparison between open field and urban zone
- To make a final presentation in Thursday Feb. 23 and answer questions from audience
- To finish writing the paper

4 Problems or challenges

- Communication status is highly impacted on weather. Thus, the team confronted weather issues to conduct testing freely.
- Verify goTenna's packet delivery ratio was not possible because goTenna packets were not accessible to general user.
- During testing in farm, geological limits such as no straight road, private land matter to get accurate value.