

Report Date: 10/21/2022

To: [ematson@purdue.edu](mailto:ematson@purdue.edu), [ahsmith@purdue.edu](mailto:ahsmith@purdue.edu) and [lee3450@purdue.edu](mailto:lee3450@purdue.edu)

From: C.C

- Eunmin Kim ([32200928@dankook.ac.kr](mailto:32200928@dankook.ac.kr))
- Booyong Lee ([201810909@sangmyung.kr](mailto:201810909@sangmyung.kr))
- Hanbyeol Lee ([yhb1834@cau.ac.kr](mailto:yhb1834@cau.ac.kr))
- Jeeyoung Oh ([jeeyoung9907@cau.ac.kr](mailto:jeeyoung9907@cau.ac.kr))
- Seoyeong Lee ([lsyoung66@cu.ac.kr](mailto:lsyoung66@cu.ac.kr))

### Summary

Each team fixed each part and set up the details. A broom team had started to make a broom part and a platform team just finished the detail things. Chapter 3 of the paper had been written down.

### What C.C completed this week:

- Went to Menards to buy equipment and tools
- Made broom prototype with wood
- Installed ROS2 Foxy on Ubuntu 20.0.5 [1]
- Searched how to add Lidar and ROS2 [2]
- Downloaded Ubuntu 20.04.5 on Raspberry Pi 4b
- Designed robot platform and planned a meeting with Professor Eric
- Started to write chapter 3 of the paper
- Connected several Raspberry Pis 4b using publisher and subscriber on ROS2 [1]
- Finished ROS2 beginner tutorial [3]
- Prepared for midterm presentation, set presentation flow, and made PPT material

### Things to do by next week

- The platform team is going to make the first floor of the robot platform.
- The broom team will keep making the broom part.
- The network team is going to keep studying ROS 2.
- All team members will prepare for midterm presentations.

### Problems or challenges:

- Several trials and errors from installing ROS2 Foxy on Ubuntu 20.04.5
- Connection between Raspberry pi and laptop did not work.

### References

[1] "ROS 2 Documentation: Foxy." ROS.org. <http://docs.ros.org/en/foxy/Installation/Ubuntu-Install-Debians.html> (accessed Oct. 17, 2022).

[2] Articulated Robotics. How do we add LIDAR to a ROS robot?. (Jun. 2, 2022), Accessed: Oct. 19, 2022. [Online Video]. Available: <https://docs.ros.org/en/foxy/Installation/Ubuntu-Install-Debians.html>

[3] "ROS 2 Documentation: Foxy." ROS.org. <http://docs.ros.org/en/foxy/Tutorials/Beginner-CLI-Tools.html> (accessed Oct. 21, 2022).