

# Lab Report 5

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February 19<sup>th</sup>, 2021

## **Summary:**

15 hours of work.

Monday: (3 hrs) Ran into a problem with my linux when it booted that forced me to re install my linux boot. This caused for me to lose all my work and ros2. It was not difficult to acquire my code as I email it to myself once a week in the case that my laptop dies. But the process of getting everything downloaded again took quite some time.

Tuesday: (2 hrs) I finished up debugging my files again, I then started to search the internet for IMU but I had no luck finding anything useful

Wednesday: (5 hrs) I have spoken to Justin today about odometry after a few attempts at IMU with no luck. He told me that Odometry would be the wiser to use but it is possible to just get the yaw from the world without odometry (I have no clue how). I attempted a few different tries from YouTube videos just to get a value running from I with no luck, I instead started looking into the camera. I can get values by echoing in another terminal, but the camera puts a massive delay in the values of my distance sensors. This delay would undoubtedly wreak havoc on my robot when implementing a solution.

Thursday: (2 hrs) I went back to trying to figure out subscribing and publishing odometry so that I can at least see some values to work with in my file. I am getting quite frustrated with myself. It has not worked yet. I understand how to do this task I just do not know how to literally do this.

Friday: (3 hrs) BREAKTHROUGH. I am now able to get “odometry” set where I create my own values via the movements of the robot. The values I am getting are now being publish to my master file that handles all the calculations! The problem I am having is my yaw readings are all over the place. It has me jumping 180 degrees in readings when I have just rotated 10 degrees roughly.

## **Next Week:**

This week has been a very rough and frustrating week in terms of my progress. I wish to be farther than I am currently. Getting my IMU or my Yaw reading has been difficult for me, but I cannot complete this project without it. I have made good progress today by getting some new readings even if they are currently wrong. Next week I really hope to have gotten my IMU reading done through odometry so I can focus on camera, because I also have errors with using the camera. I am going to put a few extra hours into this tomorrow, Saturday the 20<sup>th</sup>, because I have some extra time due to the recent exams I have completed.