STATUS REPORT – Will Wu

Writer	Will Wu
Status Update Period	Week of 03/26/23 - 04/01/23
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Accomplishments for the week of (03/26/23-04/01/23)

- *I2C RPM Peripheral*
    1. The develop of this module is facing a lot of trouble
    2. So far, I am able to translate all the python driver code into C, and get the exact same reading through serial
    3. However, I'm not able to configure the Pi Pico to show up as a I2C peripheral
    4. Onza did have a working RPM publisher node in ROS2
    5. I'm going to spend this week as the last week on this peripheral. We absolutely need to start implementing the Kalman Filter

Plan for next week (04/02/23-04/08/23)

- Prioritize PID implementation as ROS nodes
- Finish designing and implementing Kalman filters

Topic Outline/ Progress toward deliverables

I.   PID Controller, linear estimator and angular estimator design. 20% done; ongoing: **2/24/23 - 4/6/23**

II. Kalman Filter ROS2 implementation. 10% done; ongoing: **to complete by 4/15/23**

III. Testing **Scheduled: 4/01/23 – 4/20/23**

IV. Landmark based SLAM study **Scheduled 4/01/23 – 4/27/23**

Issues

- Raspberry Pi can't detect Pi Pico as an I2c peripheral