WEEKLY REPORT and MEETING AGENDA

Report #: __2__ Project Name: _____Open Source Lidar_____
Date:__2.17..2022__ Prepared by: _____Aamhish Rao____

Agenda for the weekly meeting

1. Discuss ordering parts for the PCB
2. Discuss alterations to 3d printed mirror platform

Accomplishments during this period

1. Obtained the PCB design software
2. Allen and Paul have started looking at the Hector Slam software
3. Printed the 3D Printed Mirror Platform from Github
4. Learned requirements
5. Discussed Reimbursement options from the department for parts

Plans for next period

1. Finish project proposal and presentation slides.
2. Allen should work with me to order the PCB and components from Taobao and Jlcpcb as soon as possible.
3. Allen and Paul should also work with practicing visualizing lidar serial data with hector slam.
4. Gaurav and Aamhish should work on the new model with the two separate PCBs for the final open source lidar model and motorized spinning mirror platform.
5. Aamhish should work If any of us have time,
6. We should download the STM32Ide for working with the MCU on the github project to transfer the non-uniform sampled rate lidar serial data to the hector slam software via a ROS node.
7. We should also work on the proposal slides and document by Monday.

Project management status

1. Schedule and milestones - Our meeting schedule is the same as we outlined in the week 1 report. However, this week we have gained updated things to complete. So, the project leader needs to update the gantt chart.
2. Teamwork - Gaurav needs to analyze PCB layout and schematic for OpenTOF from Github to see what design changes to make in order to better the sampling speed and sensor range. Aamhish needs to work with Gaurav to build a 3D printed platform for our prototype and final LiDAR system. Allen and Paul need to work on using the hector slam software to effectively create a 2D/3D point cloud map with the LiDAR data provided from the photodiode sensor through the microcontroller.
3. Purchases - We need to manufacture the PCB for the project along with the components. In particular, we need to ensure we buy the best laser and photodiode sensor for our LiDAR TOF sensor in our LiDAR system. Also need to purchase the mirror and the photodiode and laser components.
4. Finish working on project proposal and presentation documents.

Minutes from previous meeting

1. We Identified the several parameters that we would want to improve upon the original model provided in the open source repo.
2. We completed Project Proposal which outlines the specific of what we aim to do.
3. We visualized a point cloud from an online sample library.