

## WEEKLY REPORT and MEETING AGENDA

Report #: 3 Project Name: Open Source Lidar  
Date: 2.12.2022 Prepared by: Paul Roy

### Agenda for the weekly meeting

1. Create a final list of components to buy, with alternatives in both local and foreign markets
2. Discussed hardware and software components
3. Explore point clouds and how we can manipulate and view them.

### Accomplishments during this period

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

### Plans for next period

1. Finish creating the list of components with emphasis on quick delivery times.
2. Begin generating sample point clouds to prepare software.
3. Setup the ROS on our systems in order to get accustomed to it.
4. Go over the Gant chart and update based on our recent updates.

### Project management status

1. Schedule and milestones - Our meeting schedule is the same as we outlined in the week 2 report. We have identified several specific parameters to improve upon the original design.
2. Teamwork - Guarav needs to view the PCB files through Atium and then send them to whichever company we will use. Allen and Paul need to work on using the hector slam software to effectively create a 2D point cloud map with the LiDAR data provided from the photodiode sensor through the microcontroller. Aamhish will work on printing the platform for the motorized spinning mirror.
3. Purchases -We need to finalize and submit our list of components to order. We also need to properly print the platform.

## Minutes from previous meeting

Meeting notes from last time:

Everyone should work on doing their assigned parts for the proposal document. Also, everyone should work on the design specifications section.

Allen should work on finding local Chinese alternative links for the components in the BOM spreadsheet if necessary.

Paul should help with the design validation of the proposed work section and also submit the next weekly report on github this Saturday . We need to get more used to Hector Slam or whatever software we will use.

Guarav should view the PCB files through Altium and see how to modify them and submit the BOM to PCBway or jltPCB.

Aamhish should print the platform for the motorized spinning mirror.

Allen is still working on finishing my section of the proposal, and searching the components on the BOM sheet on a Chinese commerce site. These should be completed by the end of today. This upcoming week I plan to set up ROS on my machine and try to generate some point cloud samples.