Individual Lab Report 03

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Team C: FlySense
Sai Nihar Tadichetty
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Work done this week
- Meeting with Prof. Jack Mostow and took some feedback on how to approach the voice command problem in helicopters.
- Jotted down the AR interface specifications with Joao.
- Started working with the Epson BT 300 after we faced problems with the Hololens.
- Developed an Android application for the Epson BT 300 which displays the sensor readings and basic navigation functionality.
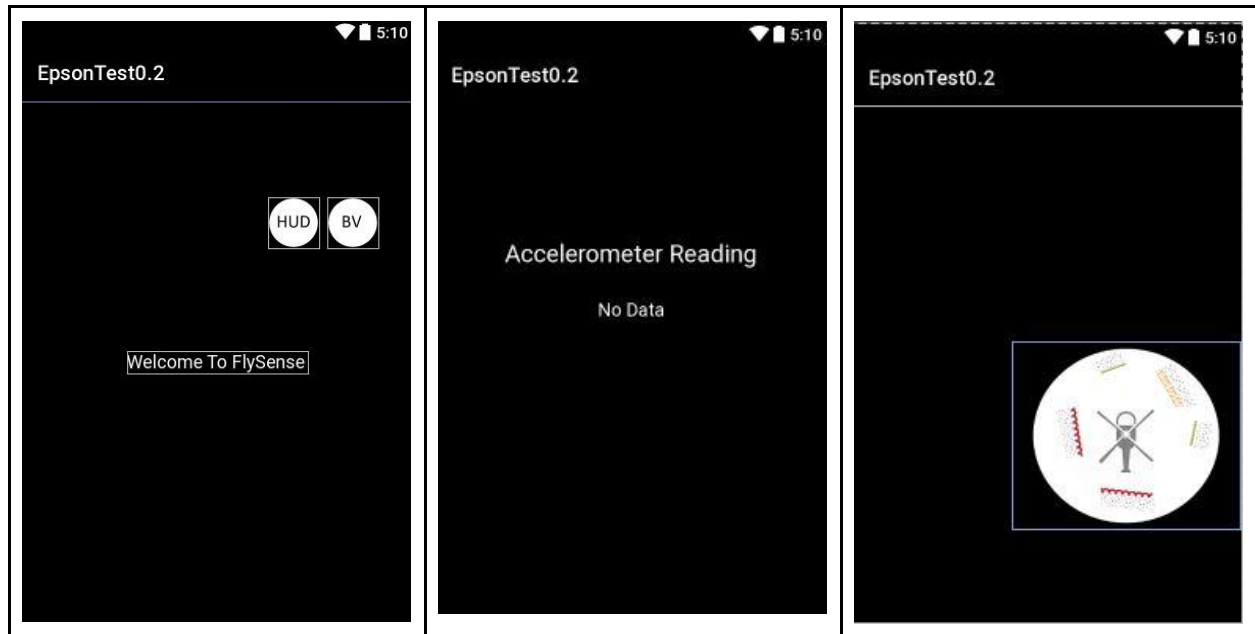

Figure 1 – The sample application

Problems Faced:
- Setting up the Epson on Android had a few hiccups. But, could solve it before it became a problem.
- The images on the glass are a bit blurry, should looks for ways to make it clearly visible.

How I can Improvise:
- Make the images on the glass look bigger but less intrusive.
- Print images on one either side of the screen (epson has a projector for each eye) rather than trying to print on both and align them.

Current Team Progress and Future Work:
- We have a sample Android app up and ready (we are ahead of our schedule).
- I am currently working on rosjava communication between the Android device and the Nvidia Jetson, and also planning to improvise the app design by using OpenGL graphics. I am hoping to get this done by next week.
- Hari is having some problems with Octomap as it is inducing some delay in the point cloud processing, he is still figuring out ways to minimize the delay.

- Shivang has set-up the Nvidia Jetson (on board computer) and is now looking at acquiring the sensors.
- Joao is working on sound/voice commands, he is performing some tests with available microphones and is figuring out what should be going on board.
- The team is slowing progressing towards initial integration of the subsystems. Next week-end is scheduled for the first marriage between the AR headset and computer.