

Meeting Log (week 5)

25th March 2019, 1 PM – 2:30 PM

Attendance:

Member	Attendance
Ben Li	Yes
Jiawei	Yes
Jireh	Yes
Jordan He	Yes
Jose	Yes
Link Geng	Yes
Minh Doan	Yes
Frederick Chew (client)	Yes

Tasks review (from last meeting):

1. Check progress of audio/visual testing
2. Review of repository/tidying of documentation

Main objectives:

1. Propose new method of implementing 180 degree camera as discussed last meeting (22/3/19)
2. Client approval of new method

Points of discussion:

Proposition to client

Explained to client the 2 second delay from image stitching; if optimized will be 0.5-1 second. Proposed the different method – instead of using 4 or more cameras (will require increased cost, extra microprocessor (+\$65)), we will use a 180 degree view camera placed horizontally using a fish eyed lens – this will also require dewarping the image. Benefits of this option were explained to the client, including decreasing the costs significantly (\$75 for one camera), while reducing lag. This option requires USB microphone, and places the expenses to around ~\$230. General cost comparisons for the different options (as detailed in previous meeting log) were discussed.

Funding

The client has received information from Chris regarding the project funding. \$200 will be given from the client for us to purchase components, with our options being:

- 1) To send the purchasing information/link to client and he will purchase the components online directly
- 2) Buy components using our own money, and fill a reimbursement form

Technical

Difficulties for noise cancellation are to be considered further if we are to utilize a 180 degree view camera, since the initial web cameras had implemented audio input and noise cancelling. Proposed considerations are filters for a certain decibel threshold. Also the possibility for a height/level change for the device, in order to adjust device height as needed.

Important notices

- Next week will be the last meeting with client (as mentioned in previous meeting logs, he is leaving overseas for a month between the 6th of April until the 6th of May)
- Sound array will arrive this Wednesday, audio testing may then proceed
- Client would like a design/drawing to be prepared for next meeting, and for some prototyping/progress to take place by next week

Critical decision made:

The client has expressed interest to support this new method, as aforementioned. Client acknowledges the increased processing time for more cameras, and agrees with this solution for requiring less parts/expenses. The team has therefore collectively decided that this will be the approach used going forward in the prototyping stage.

Task delegation:

Sub-team	Team members	Task
Sound (direction of arrival)	John, Jose	Testing of Respeaker 4-Mic array when it arrives on Wednesday
I/O (file conversion)	Link, Jordan, Ben	Continue work with the Raspberry Pi
Image (processing)	Link, Jordan, Ben	Conduct research for new imaging method using the 180-degree view camera
Assembly (modelling/manufacturing)	Minh, Jireh	-
Documentation	Minh, Jireh	Adjust the repository based on feedback from Audit 1. Create Formal Decision Making Log and other documents to support the traceability of the group's work.