

Meeting Minutes

Date: 20 May 2019

Location: Imperial College

Present:

Project Group	Joshua Rizal Chan, Lua Ying Hao, Ng Yi Song, Patrick John Chia, Joel Yeow
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Agenda

1. To provide progress updates on various components
2. To discuss project direction

Minutes

Item	Action By
1. <u>Leaflet</u> . Leaflet due in 2 weeks, to start work on leaflet. <ul style="list-style-type: none">• To look at old samples• To look for formats (online or on Microsoft Office)• To start preparing information for leaflet	Joel Yeow
2. <u>Trello</u> . Have been working on IBM materials posted on Trello board, will continue working to find anything relevant.	Ng Yi Song
3. <u>Machine learning training</u> . Machine learning model has been trained so far on Jester dataset, group discussed next steps with reference to recorded videos. <ul style="list-style-type: none">• To start uploading recorded training videos onto server• To train with group's training dataset to see how it performs• To decide whether more training videos are necessary	Lua Ying Hao, Patrick John Chia
4. <u>Sensors and Switches</u> . Button switches soldered onto individual breadboards, to start working on connecting sensors and switches to Pi. <ul style="list-style-type: none">• To look for code to get switches/sensors to work with Pi• To look into GPIO requirements on Pi	Joshua Chan, Ng Yi Song, Joel Yeow
5. <u>Dataset</u> . To collect more data if necessary, based on performance from machine learning training.	Joshua Chan, Ng Yi Song
6. <u>IBM Servers</u> . Discussed feasibility of using IBM servers, PowerAI Vision for project. <ul style="list-style-type: none">• Presently, machine learning model trained using bare metal servers from Google Cloud• Deliverable for IBM is machine learning model to be run on Jetson in WALDO• IBM ASL interpretation demonstration with PowerAI	None

Vision used static frames -- image recognition problem, not directly applicable to Makaton sign interpretation due to dynamic nature of signs

- Limited amount of time left to demonstration -- should focus on getting machine learning model to run on Jetson instead of setting up training on IBM servers
- Decided not to use IBM servers for training since:
 - Short timeframe, already using bare metal Google Cloud servers for training
 - No IBM proprietary technology actually used for model training, just using IBM computing power
 - Already using IBM Watson in text-to-speech function on WALDO

7. **Jetson Power**. To continue working on power issue with Jetson.

Joshua Chan, Ng Yi Song

8. **Pi Camera**. To check whether model can run with Pi camera on Jetson.

Lua Ying Hao, Patrick John Chia

Action Items

S/N	Para	Action	Party	Deadline
1.	1	To start work on leaflet	Joel Yeow	24 May 19
2.	3	To upload recorded training dataset to server and start training on group's dataset	Lua Ying Hao, Patrick John Chia	24 May 19
3.	4	To connect sensors and switches to Pi	Joshua Chan, Ng Yi Song, Joel Yeow	24 May 19
4.	5	To collect more training data if necessary	Joshua Chan, Ng Yi Song	-
5.	7	To continue working on solving power issue with Jetson	Joshua Chan, Ng Yi Song	-
6.	8	To check whether model can run with Pi camera on Jetson	Lua Ying Hao, Patrick John Chia	-