**CSE 379 Project - Progress Report 3**

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This week we decided to take advantage of Pacing break and tackle the “Project Design” requirement early in order to catch up in the class and have the ability to have Project Design proofread by Professor Huang (10/14 meeting) and Professor Chuah (via email 10/15 latest) in order to make sure we are on the correct path.

Initially we copied Professor Chuah’s Project Design skeleton from course site and read through the design guidelines and things to consider. From there we discussed different modularized implementations and settled on a 3 component base-model (Detection, Translation, Action) in order to help seperately build and test each critical function in accordance to Professor Chuah’s outline and general good software engineering practices. We outlined each of those components with implementation details, how they will be tested, how they will fit together as well as how each will change and function through Prototype, Alpha and Beta phases of development (that document is ~4pgs long so we’ll have to cut it down a bit)

We also discussed component based implementation of less important features such as setup/initialization, GUI as well as full-scale error/exception handling and data tracking (as supposed to handling that individually in each main component). Haven’t made any definite decisions here, we will continue research/consult with Professors early next week.

We created a prioritized “to-do” list which will be translated into a more detailed Gannt chart before Project Design submission, because a word/list format is easier to edit/fill with additional info. We also created a document to host our individual and group research on implementation specifics.

Lastly, we re-organized the Google Drive where we share and store project related material.

Going into the next week we will trim down the component description of our main components and create a Project Design rough draft by combining the component descriptions (each of which has subsections: Overview, Input, Output, Prototype, Alpha Release, Beta Release) with Professor Chuah’s Project Design skeleton to which we will add brief notes detailing how our components match the requirements. We will also continue research/discussions of additional components and continue documenting these.

We will then show the rough draft, along with our ideas for smaller components and research to Professors Huang and Chuah and get their feedback/opinions. The final version will be revised to include the additional components we decide to include, along with a detailed Gantt chart and UML diagrams (if we have the time)**.**

10/14 update: we had our weekly meeting with Professor Huang and she agreed with our 3 component model and urged us to start working on prototype code. Matt began working on defining the forward/backward gestures using the Leap API.. gestures are defined as objects associated with “hand” objects and are described using palm position, velocity, palm normal, palm direction, grab strength as well as scale, rotation and translation factors.. Matt is testing movement associations in order to set up ranges that will define the forward/backward gestures. Greg began working on the PP functionality and is also doing additional research on a Microsoft messaging library that could be used to send information between running instances of Detection and Action as part of our Translation component.