Development of a Virtual Environment for Visualizing Emotions

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7/17/2015

PROGRESS

Visual Application

- Demonstrated progress on visuals to Chikama-san, Inoue-san, Yasuda-san, and Shimojo-sensei.
- Met with Yasuda-san and studied usage of the REI library in Unity.
- Implemented falling raindrops for "sad" scene.
- Created background graphics for "sad" scene, these graphics will gradually change colors as the mood of the user shifts.
- In the image to the right, the background initializes as a black screen, then the blue clouds in the background fade in. Rain begins to fall, and particles continue to fade in one by one until the tree meshes are formed.

Dead trees constructed of animated shades of blue particles for "sad" scene

EEG

- Considering switching to the Emotiv device since the current EEG device (Polymate Mini AP108) only has 8 electrodes, which is not sufficient enough to attempt emotion recognition. The Emotiv device also detects facial gestures.
- Contacted Yasuda-san to see if his acquaintance may lend an Emotiv headset, currently waiting to hear back but will also be attending an EEG/BCI conference next week and will talk with the speaker there.
- Began working on creating TCP connection between Matlab and Unity for transfer of EEG data.

UPCOMING GOALS

Visual Application

- ◦ Complete background graphics for "happy" and "angry" scenes.
- ◦ Complete full rendering of "sad" scene, including beat synchronization.

EEG

- ◦ Finish TCP connection for data transfer.
- ◦ Since the Polymate Mini captures data for 8 electrodes, continue testing with it while waiting for the Emotiv.
- ◦ Attend EEG/BCI conference at Osaka University on July 23.
- ◦ Obtain Emotiv headset.
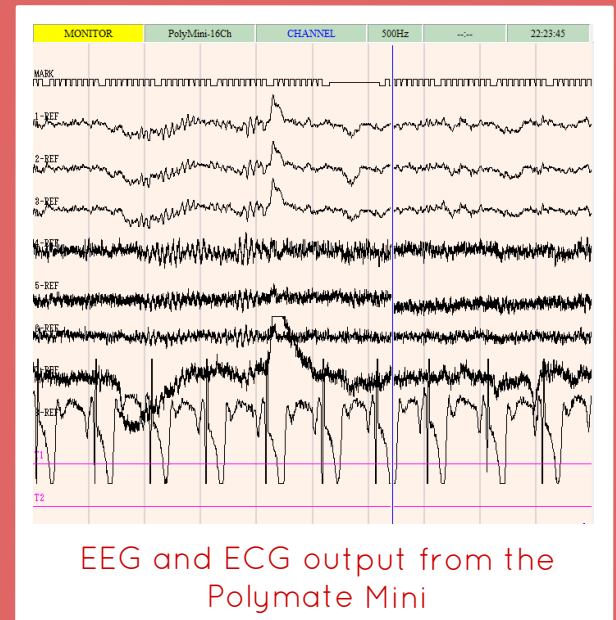
EEG and ECG output from the Polymate Mini

EXPERIENCING JAPANESE CULTURE

Kyoto Tower

Exploring Little DenDen Town

Found a giant Domo

Wall of a cafe in Kyoto International Manga Museum

Sang at a karaoke studio

Shiba inu prizes in one of the claw machines

EXPERIENCING JAPANESE CULTURE

Heading to Tsutenkaku Tower

View from the top of the tower, around 91 m in the sky

Giant Pocky Box inside the tower

Visiting the Pokemon Center!

Todaiji Temple

Back in Nara Park

JAPANESE CUISINE

いただきます

Shrimp mayo sushi

Eating kushikatsu with Japanese friends

Hoji-cha sundae at a green tea cafe

Peach ice cream on a hot day

Braised pork rib ramen, yum!

ACKNOWLEDGMENTS

ありがとうございました