

CS5245 Project Progress report

Project Title: Magic Cup

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Intended Changes:

Comments that “we have several scenes, and that we should focus on a few good ones” were offered.

In view of that, we have decided to remove the particles effect that will outline the cup, since that effect is secondary. We shall “KIV” this idea, and return to it when we have sufficient time at the later stage of the project.

The plan thus far:

11 Feb – 17 Feb: Trial video to test for feasibility

25 Feb – 03 Mar: Actual Filming

04 Mar – Present: Video Editing and Trying out of ideas

What we have done:

11 Feb – 17 Feb: Trial Video

Photos of coffee in a cup were taken, as we needed to observe the amount of refractions and reflections in the glass cup, as well as the properties of the coffee in the glass cup. These observations are essential to build the coffee profile. With

the model, we can then remove the reflections and refractions on the cup, and replace with a substitute coffee color.

A simple trial video was also taken. The video comprises 2 scenes, namely

1. Pouring coffee into the cup
2. Drinking the coffee

Both taken in front of the blue screen.

These 2 scenes were especially important, as we needed to know if the cup removal idea was feasible, and the difficulty of the project; especially the amount of correction we need to do, to make the cup totally invisible, and yet realistic.

After feeding the trial video into Adobe After Effects, we concluded that cup removal is possible. However, due to the large amount of reflections and refraction on the cup, much correction had to be made.

25 Feb - 03 Mar: Actual Filming

All the filming was done.

We took 3 scenes in front of the blue screen. Namely

1. Pouring coffee into the cup
2. Holding the coffee cup from the table to the mouth
3. Drinking the coffee

Clean plates for these 3 scenes were also taken.

The other scenes that constitute the video are also taken.

04 Mar – Present: Video Editing and Trying out of ideas

The video was put together and cut to fit in 1 minute. Thereafter we worked specifically on the pouring coffee scene.

We tried out many ideas to see what each idea could contribute to our effect; we tried image subtraction, computing color difference to detect either the coffee or the background.

We are currently facing difficulties due to the reflections on the cup. The reflections are causing color deficiency where the coffee is supposed to be. Also the coffee appears darker than it should. Hence much correction has to be done.

What to do next?

- Simple cup removal and compositing.
- Find methods to minimize manual work on color correction of the color.