CS5245

Vision & Graphics for Special Effects

Progress Report 1

Team Members

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1. Special Effect

Hair growth, crawling through a glass of water and retract back to the original person's hair.

2. What Have Been Done

This section highlights the list of tasks that have been done over the past two weeks:

✓ **Changed of proposal**
The new proposal is focusing on special effect on hair growth. The new storyboard is shown under section *4. Appendix (Storyboard)*.

The latest proposal that we have submitted was supposed to show the hair effect holds the glass of water and drags it close to the person's mouth for drinking. After hearing some comments from the lecturer, we decided to change the holding up effect to crawling over the glass of water, as shown in the Storyboard in Appendix.

The timing that is shown in the storyboard has been adjusted appropriately based on the footages taken during the video shooting.

✓ **Video shooting**
Before the shooting is started, the team has gone to few areas to survey for the most suitable location for taking the footages. Those areas were SOC building, inside the Media Lab 1 and the living room outside the Media Lab 1.

The shooting was done in 2 different days:
- First shooting was done inside the Media Lab 1. Then we tried to play around with Maya hair and we think that the sleeping position and the original hair placement might make the Maya hair to be harder to implement. The position was to have the actor sleeping by placing both hands on the table.

- Second shoot was done outside the Media Lab 1 after we decided that lying down position might be easier for us to implement. Hence, we went back to reshoot with some camera views and angles corrected. More shoots were taken as we found that there weren't enough footages to play with from the first shooting.

✓ **Reconstruct the layout of 3D environment / Matchmoving**
We are still trying to reconstruct the 3D points of some of the main footages that we need to include in the Maya hair. Up to this point, we've tried to track the points with Matchmover and imported the points into Maya for the reconstruction.

Some of the screens are shown as below. The reconstruction has not been successfully done yet. We are still trying to adjust the points.
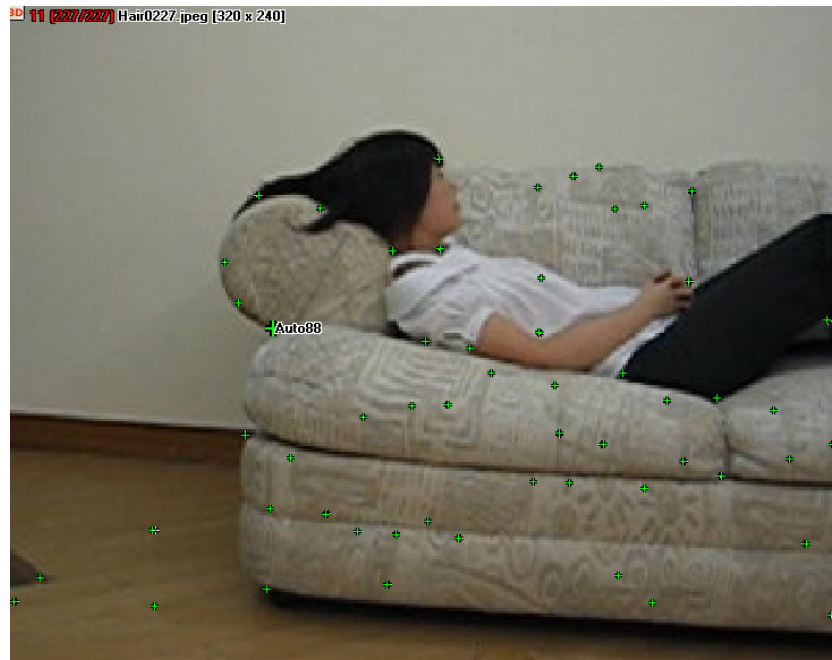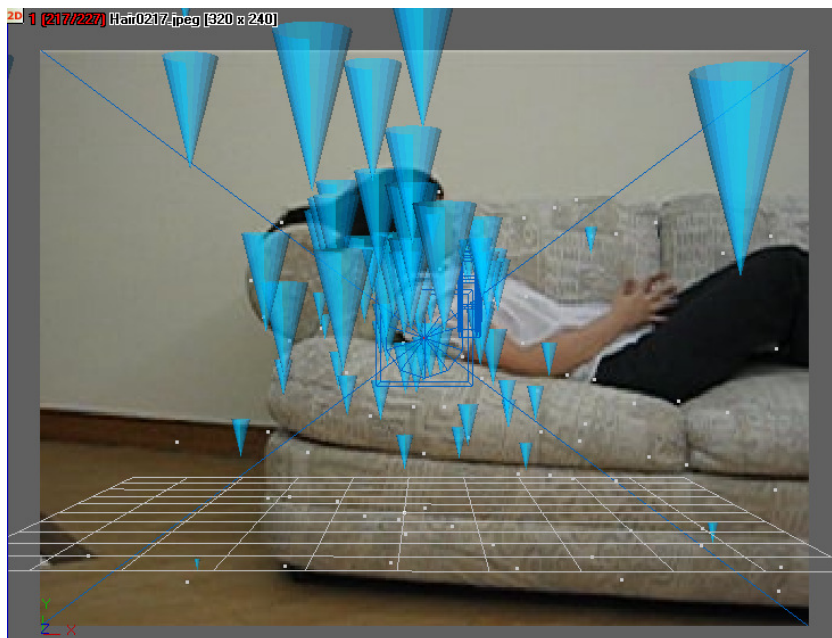
Figure 1.   Points tracked in Matchmover

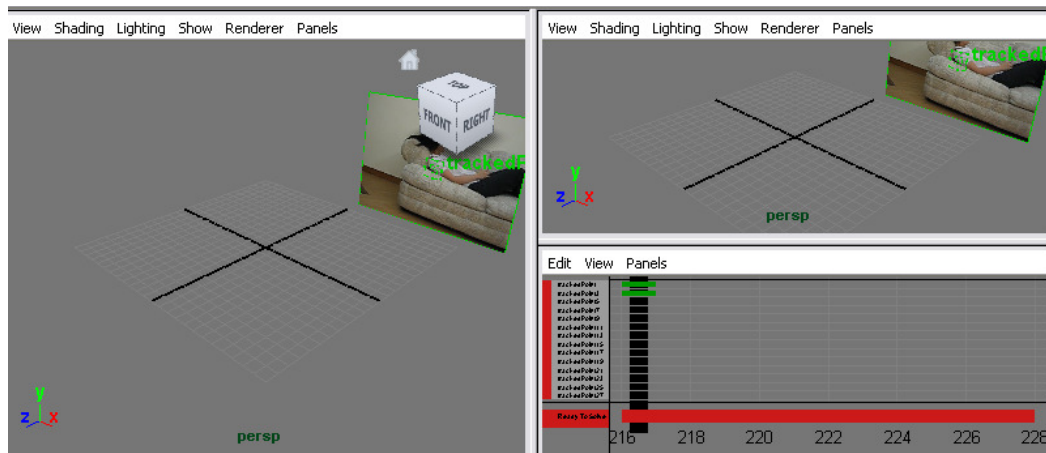**Figure 2.   Points tracked in Matchmover**

Figure 3. Tracking points imported to Maya

✓ **Animation**
We are trying to create the hair animation in Maya, using Paint Effects, which will be blended with the person's real hair. The current progress is still using the sample sculpture provided in Maya to attach the animated hair.
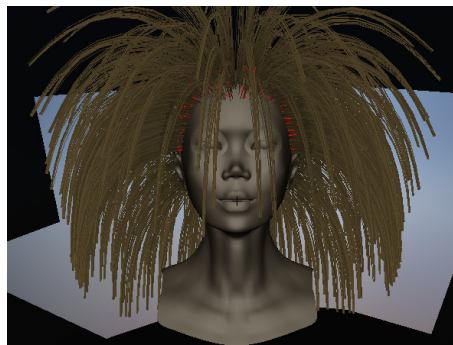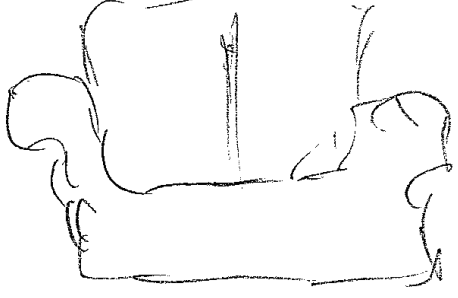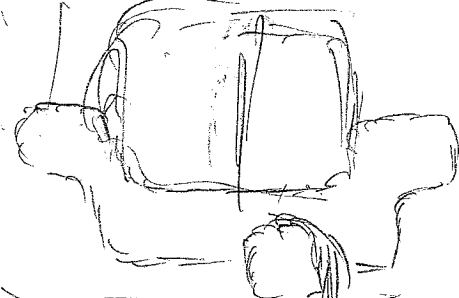

Figure 4. Hair Animation in Maya

3. What To Do Next

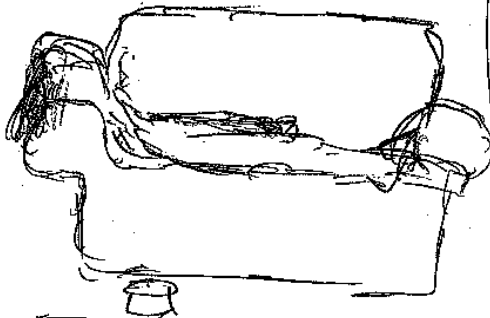This section highlights the tasks that need to be completed for the next 2 weeks:
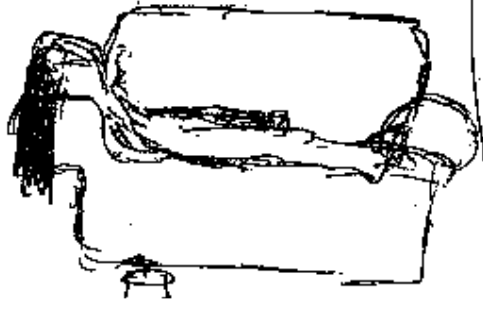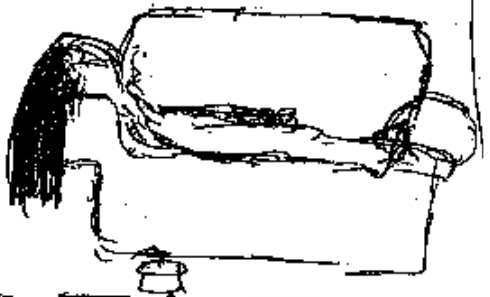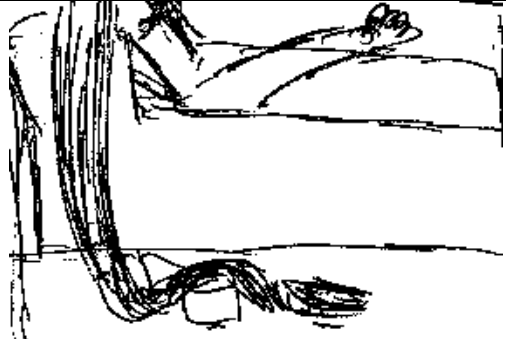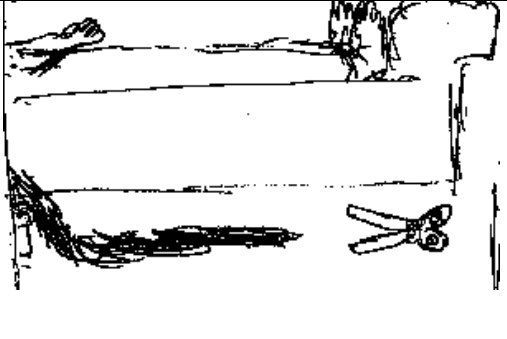- Complete the reconstruction of all necessary 3D environments (includes stationary and moving footages)
- Try to apply texture synthesis to implement the hair growth
- Reshoot certain footages if necessary
- Will aim to finish the animated hair and place it into the live-action footage
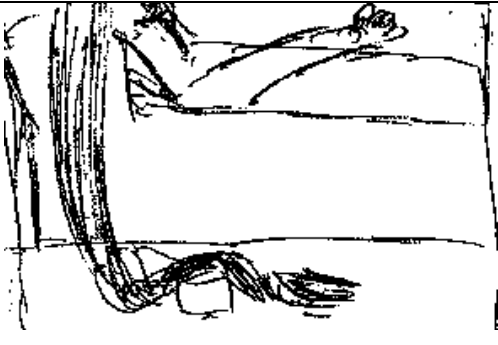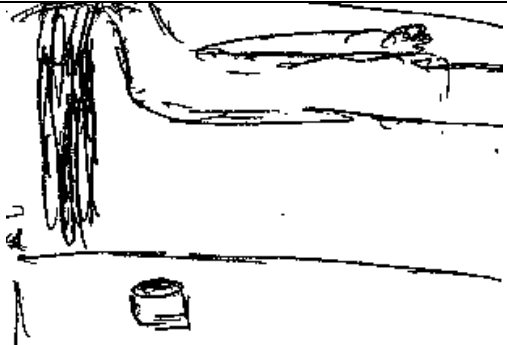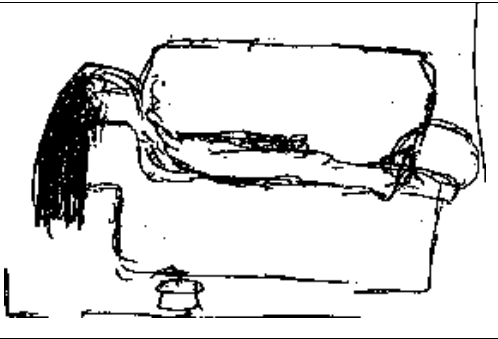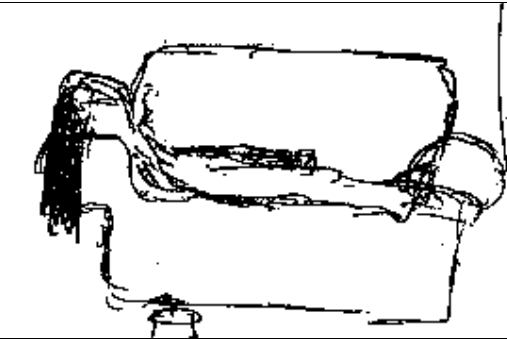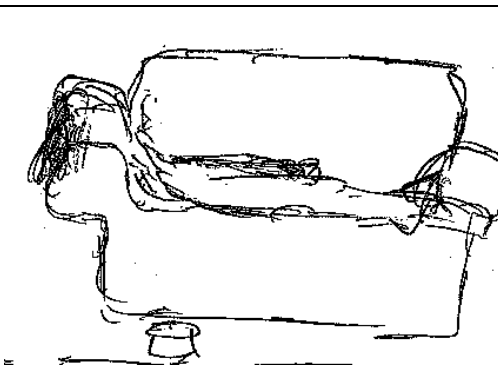
4. Appendix (Storyboard)
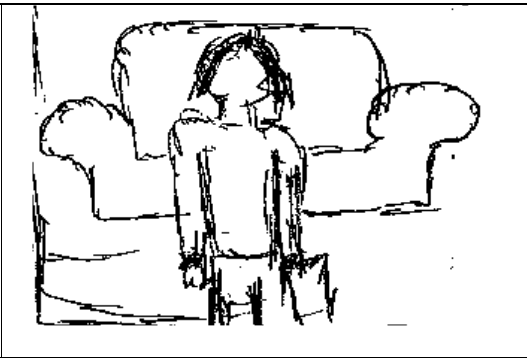
This section highlights the updated storyboard.
Note: [MM:SS] denotes the estimated time in minutes and for the pictorial above it.

[MM:SS] : **[00:00 – 00:02] Begins** Camera is static, pointing on the sofa and wait for the next scene	*[MM:SS] :* **[00:02 – 00:07]** The actor is walking into the scene.
[MM:SS] : **[00:07 – 00:10]** The actor has started to sit down, and put the glass of water on the floor.	*[MM:SS] :* **[00:10 – 00:15]** The actor found a comfortable position to sit down on the sofa and started reading a magazine.
[MM:SS] : **[00:15 – 00:20]** Point of view shot, close to the actor herself.	*[MM:SS] :* **[00:20 – 00:25]** The actor has finished reading the article and

The camera zooms in to the magazine, with the intention to show the title of the article that the actor is reading on. This title will indirectly tell the viewer the cause of the effect that will happen to the actor in the later scenes.	put it on the sofa, preparing to lie down on the sofa and have a nap.
[MM:SS] **: [00:25 – 00:28]** The actor has slept comfortably.	*[MM:SS]* **: [00:28 – 00:30]** The effect starts here. The hair of the actor has started to grow longer.
[MM:SS] **: [00:30 – 00:32]** Hair starts to grow and have more volume now.	*[MM:SS]* **: [00:32 – 00:35]** The hair has grown even longer and reaching the floor. Camera angle is shifted to lower position close to the floor.
[MM:SS] **: [00:35 – 00:40]**	*[MM:SS]* **: [00:40 – 00:45]**

Camera starts to shift slowly following the hair direction, towards the right.	The camera is kept still here, the hair movement is paused due to the appearance of the scissor that made the hair scared.
[MM:SS] **: [00:45 – 00:46]** Hair starts to retract in a faster speed because worrying that the scissor might cut the hair. Again, camera will focus on the hair, following the hair direction, to the left.	*[MM:SS]* **: [00:46 – 00:47]** Hair length has shorten, almost goes back to normal.
[MM:SS] **: [00:47 – 00:48]** Camera focuses back on the whole body of the actor. Hair length has decreased further.	*[MM:SS]* **: [00:48 – 00:49]** Hair volume has decreased.
[MM:SS] **: [00:49 – 00:52]** Hair length has come back to normal.	*[MM:SS]* **: [00:52 – 00:55]** The actor wakes up, grabbing the magazine.

[MM:SS] **: [00:55 – 00:57]**	*[MM:SS]* **: [00:57 – 00:60]**
Actor is picking up the glass.	Actor is leaving the scene.