

## **Part 1**

1. Stakeholders involved in the process of motion capture are the motion capture studio, the director, and the actors. In order to capture realistic performances from actors and apply them to the characters being portrayed, directors of movies or games often employ the use of motion capture technology. Through such immersive technology, consumers are able to have a greater degree of suspension of disbelief, and thus have a better experience. The motion capture studio themselves are also a stakeholder in the mocap process, as they are able to streamline and optimise their current technologies, while further building and improving on them.

2. 2 factors that need to be considered when location shooting using mocap are the spacial limitations of the mocap system and any special equipment that might be required, such as wire work or safety equipment.

3. a) User story - Superimposing Josh Brolin's face on Thanos

In order to superimpose the face of Brolin on Thanos, Brolin's facial performance must first be captured, then tested with a puppet of Brolin himself to observe for any differences in details. If the test succeeds, it can then be superimposed on the puppet for Thanos.

If the lighting on Thanos is affected in unexpected ways by lighting, the saturation of his skin can be manually adjusted.

The neck tendons and Adam's apple can be manually animated to bridge the area between the face animation rig and body muscle-based rig.

Eye jittering was introduced so that Thanos' eyes can scan the environment and reflect his surroundings.

Thanos' jaw has multiple pivot points to simulate more realistic mouth movement.

b) Task: Adjusting saturation of Thanos' skin

Simulate the color of Thanos' skin under the scene lighting, if it looks dull, manually adjust the saturation of Thanos' skin such that it looks more natural.

## **Part 2**

1. From this assignment, I have learned more about the process of mocap, and how to write user stories and task cards.

2. To complete this assignment, I used the links provided in the assignment itself to learn and understand more about the topic. I also used the lecture slides as an example of what a user story and task card should include. In terms of techniques, the question given about the superimposing of Brolin's face on Thanos did not fit the template of software development given in class, thus I adapted it to be broader, instead focusing on what the director of the movie might want.

3. As mentioned above, one problem I had was applying the concepts of software engineering to film making. In software engineering, tasks are generally more defined, compared to the subjective and abstract nature of film-making. To improve for the next assignment, I plan to improve on any criticism given in this assignment, as there has not been a benchmark for assignment work yet.