

CS5245 Vision and Graphics for Special Effect

Project proposal

Title: The Ball

Summary of the Effect

The main objective is to make use of motion tracking, computer graphics and image composition to create the effect of a man juggling an animated creature in the air, just as a footballer would juggle a football.

The difficulties include:

- 1) Motion track and motion match
- 2) How to make the change from a ball to a creature gradually and realistic.
- 3) If necessary, tracking the motion of ball's shadow to create the creature's shadow

Inputs

A video footage of a footballer juggling a football in the air will be taken. To facilitate the motion tracking of the ball, the ball will be painted blue or green and some reference marks will also be painted on the ball.

Computer Graphics (CG) will be used to create the animated object/creature that will replace the ball in the final composite footage.

Tools and Props to be used:

- 1) A green or blue ball painted with reference markings
- 2) After Effect for compositing
- 3) Maya for generation of the CG

Outputs

The main special effect will be the juggling of the animated creature.

The challenge is to produce a realistic effect of the animated creature being juggled, correctly tracking the motion of the actual ball. It is also a challenge to ensure that the interface of the animated creature and the human footballer is realistic.

Other optional effects like the morphing of the animated creature may be included if time permits.

Layers

There will be 2 layers in this production:

- (1) The footage of the footballer and the background
- (2) The animation

Project Proposal – The Ball

Storyline

Rooney was strolling back home after a hard training session for the soccer tournament on the next day. He was tired but feeling very excited about the match. As he strolls down the road home, he couldn't help but to practice his kicks on the cans and other litters he found lying around on the ground. He found a strange green ball lying around. He kicked it. The ball suddenly became a sprite, "Who kick me!" (The End)

Milestones

1. 5 Sep - Submit project proposal
2. 12 Sep - Complete filming of the required footages
3. 19 Sep - Complete pre-processing of the footages and starts composition
4. 24 Sep - Submit progress report
5. 3 Oct - Complete CG creation
6. 22 Oct - Submit progress update
7. 31 Oct - Completion of the final product and prepare for presentation
8. 5 Nov - Presentation

Team members

Conrad Chong, HT020161U

Huang Yicheng, HT030010U

Tasks and responsibilities

1. Video footage production - Both
2. CG effects production - Yicheng
3. Motion tracking - Conrad
4. Composition - Both