July 20 week report

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Contents

1 Work done:

1.1 Cameras

press v to switch cameras

1.1.1 auto follow camera

1.1.2 controllable follow camera

operation instructions:

1. use > or < key to change the dist between the spider and the camera
2. use w/a/s/d to rotate

1.1.3 world camera

There are two kinds of world cameras.

1. First one is just operating the cameras.
2. Second one is cast a ray from the camera to gameobjects.

The difference is the rotating operations:

1. the first one rotates the camera itself
2. the second one rotates the camera around the ray hit point.

Cons&pros:

1. The first one is hard to operate.
2. The second one is easy to operate. Besides, I could shoot food or bombs towards the hit point. However, the ray must hit at least one objects. And one problem here is how to deal with the condition that the ray hit nothing(need some suggestion here).

operation instructions:

1. 1,2,3,4 to reset the camera position and orientation
2. w/s/a/d to rotate
3. $>$ or $<$ to change the dist between hit point and camera
4. arrow keys to change the position of the camera

Additionally, in world camera state, press f to place a fly.

1.2 add simple spider eye sensor

See the green rays in scene in play mode.

1.3 add simple UI

2 Report revision

1. add footnote. need some suggestion on the permission part.

e.g. figure1

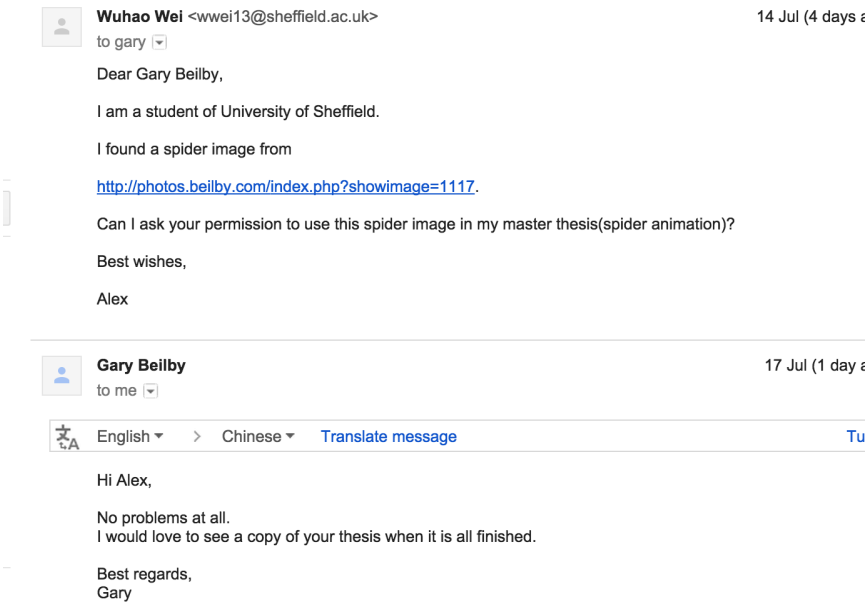

Figure 1: permission.

3 Extra reading

1. read materials about Behaviour-based robotics subsumption architecture(most reading are slides and blogs)
2. Brooks, R. (1986). A robust layered control system for a mobile robot
3. Rodney Brooks's paper on "Fast, Cheap, and Out of Control"

4 Different behaviours

5 Problems

1. understand behaviour-based and subsumption architecture. Still need some extra efforts on implementation (Since the robotics works differently. e.g. aims, difference between animation and robotics, hardware.).
2. stuck in how to make the clips and movement consistent.