**Luyao Wang NetID lw337 final proposal**

*//This is just an intuitive proposal and is subject to change and supplement in the following week.*

I want to do a 3D model generator for my final project. This 3D model generator uses Kinect to test depth so that a 3D scene can be generated.

I realize that it is hard to work out something both concrete and aesthetic in 3D. For the time being, I cannot imagine how to simulate the motion of people or animals in 3D. As a result, it would be better to create something more abstract and accord with my aesthetic pursue.

Kinect can generate depth images. I will use the depth images to work out my 3D scene. I will certainly use computer vision to modify the image. Since it is too hard for me to entirely mimic human body’s motion, I will make it more abstract. I want to reach the extent that when you look at the scene I produce, you will not believe it is from reality; but if you compare it carefully with reality, you will see the similarity.

I will probably use ofMesh to “distort” the 3D scene in order to generate an abstract scene. I would like to use different color to represent objects of different quality. Like infrared thermometer, I want to work out a method to assign different color to objects of different property. The criteria might be the size or the consistency of color, the shape of the object should also be taken into consideration. That could be a challenge to me in the aspect of algorithm.

I will also add some animation to the 3D scene. One solution is to use noise to add offset to the vertices of the meshes. Another solution is to use Kinect to observe the motion of the real world for a while and discover the regular pattern of the motion. The second method is harder and needs more attention.

I will get more knowledge about ofKinect this week and I will add more to this proposal.