CSCI 5460 Virtual Reality
Assignment #1 --Rolling Dice Animation

DUE: 28, Sep., 2016

Note: In this assignment, we will build three rolling dices, and practice on modeling, setting material/texture/light/camera/animations. You are required to submit the blender project files, named as "Asg1Q1.blend", "Asg1Q2.blend" and "Asg1Q3.blend", and then compress these project files as well as the texture images into one zip file named "Asg1#sid.zip" (e.g. Asg1#1155055731.zip), submit the zip file to the elearn system.

1. Follow the video tutorial (https://www.youtube.com/watch?v=sNhN3X3MvD4), and create one rolling cube dice, as shown in Fig. 1. (25 marks)
   a. Modeling
   b. Material/Texture
   c. Lighting
   d. Camera
   e. Animation

Fig. 1: Example of one cube dice.

2. As shown in Fig. 2, set 1 and 4 to red color, and 2, 3, 5, 6 to blue color, and make dot 1's size larger than others. Duplicate the 2nd cube dice from the 1st one. Set the ground's texture as wood (goo.gl/wl0Lgv), as in Fig. 3. (10 marks)
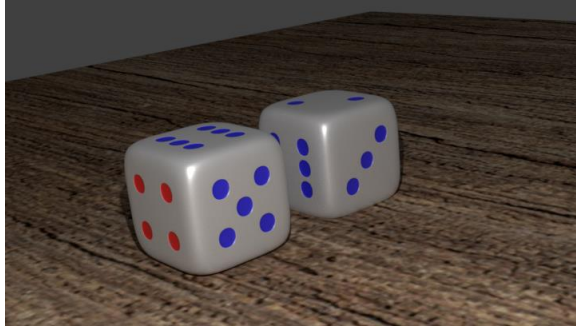

Fig. 2: Example of the two colored dices.

Fig. 3: The virtual scene with wood-textured ground.

3. Add one tetrahedral dice (as in Fig. 4) into the virtual scene. (25 marks)
    a. All edges are equal length.
    b. The size is about the same as that of the cube dice.
    c. The style is the same as the cube dices (i.e., colors, size, tips/boundaries are smooth).
    d. Add animation also for the tetrahedral dice, same as the cube dices.

Fig. 4: An example of tetrahedral dice (4 faces, 4 vertices and 6 edges).

Total marks: 60 marks.