1. **Do & Not do:**

Do: All the requirement and extra credit 1 and 2.

Not do: Extra credit 3

1. **Environment:**

Window 8.1

1. **Platform:**

Chrome

1. **Browser:**

Chromium 40.0.2177.0 (64-bit)

1. **Instructions:**
2. **Requirement 1:**

Done.

1. **Requirement 2:**

Done.

1. **Requirement 3:**

Done.

1. **Requirement 4:**

Navigation system can be done in two ways. One is to use “lookAt” function to move the camera. The other way is to directly move all the objects in counter direction. In my implementation, I choose to move the camera.

For pressing “UP”, “LEFT”, “RIGHT” and “DOWN”, I firstly construct a moving vector for “at” so that I can get a new “at” by using the function “newAt(v, u, Degree)”. Then I use the new “at” to construct a new “viewMatrix”.

For pressing “I”, “J”, “K” and “M”, I just update both “eye” and “at”.

1. **Requirement 5:**

In my implementation, I modify the “fovy” variable of perspective function and set the limit as 30~150;

1. **Requirement 6:**

All the comments have been written in my program;

1. **Extra Credit1:**

Instead of using 36 points and TRIANGLES to draw the cubes, I use 16 points and TRIANGLES\_STRIP to draw the cubes;

1. **Extra Credit2:**

The function “rotateOrScaleAnimation(index)” is used to assign different animations for different cubes. Pressing “A” can start or stop the animations.