PGSS – Programming Lab
Task 6   Build and Explore a 3-D World

Class Notes and Code selection 18 covers code on 3-D and Texture Rendering which we will do on Friday.

We are leaving the game today. Feel free to continue your work on it.

____Build a three-dimensional world of boxes and spheres and other 2-D shapes. Note that 2-D shapes have no thickness. If your world is rotated 90 degrees on any axis, 2-D shapes will disappear. They will reappear as rotation coninues. It is ok to nest small structures inside larger structures. Transparency does not seem to work in the current version. It worked in the older 1.5.1 version. If your future work needs transparency, you can download that version and use it. Do not use it for this task since it will not work on Open Processing.

____Provide the user with keyboard and/or mouse controls to translate and rotate in all three axes in both negative and positive directions. Types of inputs and how your program deals with them are entirely up to you.

____Provide the user with keyboard and/or mouse input to stop all movement at the current orientation in case the user loses control of the movement.

____Provide the user with keyboard and/or mouse input to return all movement control variables to zero in case the user gets lost.

____Provide a clear, concise, non-obtrusive menu of control inputs on the edge of the window.

____Provide clear, concise, non-obtrusive status of the user's position for translations and rotations in all three axes. For translation the unit of movement is the pixel. For rotation, the unit of rotation is degree.