Name –Vikramaditya Kokil

ID - 201101103

Create a Polyhedral by cutting all edges of the cube

First of all the coordinates of the entire 24 vertex is stored in array then a method '**def draw face ()**' is called to draw each face of the cube by applying proper transforms to each face. The each edge is a triangle if we cut all the 8 edges of cube. So to make the triangular surface distinct I have separately drawn each triangular surface in method '**def drawtriangle ()**' and applied different color to it. I also added some light in '**def display ()**' method effects to make it visually better. Timer function is used to rotate the cube by default. The keyboard function '**def keyboard ()**' is handling the keyboard inputs.

The Size of the cube and the tetrahedron length can be varied by varying the variable "size" and "val" respectively.

By default the cube is moving because a Timer function '**def spin ()**' is called at a regular interval of 100ms. The Timer can be stopped by pressing 's' key from the keyboard.

Keyboard Input and its effect

The different keys allowed are:

‘s’ or ‘S’ – toggles start and stop of the moving of cube. Initially cube is moving

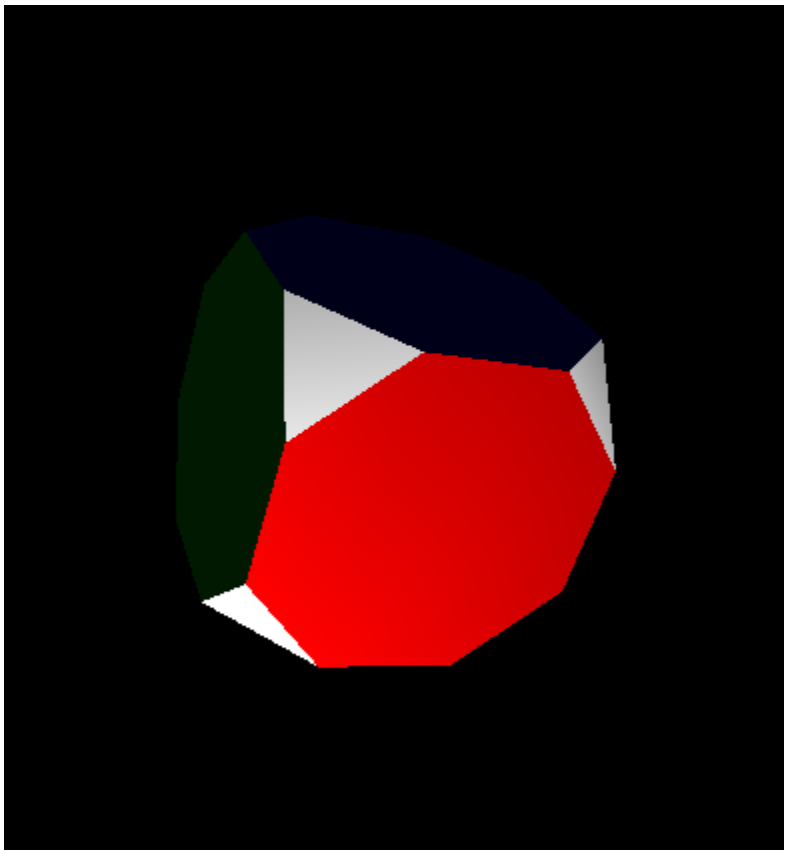
////////////// These Keys Works only when the cube is not moving //////////////

//////////////////// To stop the cube use key ‘s’ or ‘S’ ////////////////////////

‘x’ or ‘X’ – rotates cube along X- axis

‘y’ or ‘Y’ – rotates cube along Y- axis

‘z’ or ‘Z’ - rotates cube along Z- axis



Snapshot of the output