**Project 8 Part 1 Rotating a platonic solid with OpenCV**

Name: Randy Fu Period: 5 Date: 4/12

Did you name your file l081.cpp (Lower case L, then 081)? Yes

Does your file compile & run on terminals/jupyterhub? Yes

Did you use a rotation matrix? Yes

Did you do orthographic rendering? Yes

Did you start from the coordinates I provided for the cube?? Yes

Describe here in words all the transformations you applied to vertices, for each describe how you implemented it in your code (by multiplying with a matrix, what was the matrix, or by adding a matrix, what was that matrix… be specific):

I rotated the x and y coordinates by 45 degrees and the z coordinate by .005 fps. I also scaled each point by a factor of 100. I created 3 matrices for the rotation degrees, and one matrix for the scaling. I combined the rotating matrices into one and kept the scaling one separate for rendering.

Did you use homogenous coordinates? Yes

(that allows you to combine all transformations into one matrix)

Did you combine all those transformations into one single matrix? No

If you used only one transformation matrix, what was it?

Did you name your video rotation.avi? Yes

What functions/methods from OpenCV did you use?

Mat, VideoWriter, circle, Point, line, Scalar, Mat.at,

What functions/methods from OpenCV did you experiment with but ended not using?

Obs.: feel free to rotate any platonic solid, around any line.