



## Lab Assignment 05

### Objectives

Getting familiar with OpenGL API, drawing using display lists and using OpenGL transformation functions.

### Problem Statement

You are required to implement an application that draws a 3-legged stool as shown in figure 1. For the legs, first create one in a display list and then draw it three times rotated appropriately using appropriate transformation.

Your application should handle user input at runtime as follows:

- When user presses 'x' / 'X', the 3-legged stool should rotate around x-axis in CW/CCW manner respectively.
- When user presses 'y' / 'Y', the 3-legged stool should rotate around y-axis in CW/CCW manner respectively.
- When user presses 'z' / 'Z', the 3-legged stool should rotate around z-axis in CW/CCW manner respectively.
- When user presses 'space'. Toggle drawing mode of the 3-legged between drawing a wireframe object or a solid one.

You can use code in [display list and transformation](#) as reference.

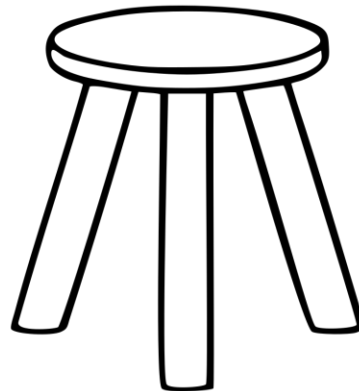


Figure 1

## **Delivery Policy**

- You should submit a report describing your code flow, screenshots of sample run and challenges you faced (if any).
- You should submit the project source code (.cpp file(s)).
- You should cite any additional resources you used.
- Further details for the submission instructions will be posted later on MS Teams.

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**Good Luck**