

## Lab03 - Homework

### A. Camera

1. **Vertical Orbit:** Implement a camera orbit around the target object along a path in the YZ plane.
2. **Camera Roll:** From any starting orientation, perform a periodic rotation of the camera around its local Z-axis.

### B. Textures

3. **Mixed Texture:** Load a second texture and blend it with the first to create a combined texture.  
*(Hint: Use the mix function in the fragment shader, e.g.,  $color = vec4(mix(texture1, texture2, mixRatio).rgb, 1.0)$ ; where mixRatio controls the blending amount between the two textures.)*
4. **Moving Texture:** Move the second texture over time to create a flow effect across the surface.