

Computer Hw4 Report

1. I reused the code under " ./interaction" to implement the code

2. Make the animation of the point work, in order to see the point clearly I made a tiny circle.

3. I implement the rectangular, and a 6 sided regular polygon, 32 sides polygon to simulate a circle, And irregular polygon that looks similar to the requirement, and each of the polygons is drawn `gl_lines`, instead of the `gl_line_loop` in order to have the color set on each side.

1 is the rectangular 2 is the six hexagon and 3 is the 32 sides circle and 4 is the irregular polygon. And press left and right will speed it up and down

4 I defined different shapes inside, Actually, for the point case, I am using a small circle in order to make it look clearly And for 6 is the point shape, 7 is the rectangular shape, 8 is the six-sided shape, and 9 is the irregular shape and up and down button will change the size of the shape, and it remembers all the Size except for the point when you switch the shape.

5 I made the fifth part working for container 2,3,4 but not one for some reason I got an exception, did not have time to figure it out why, So in any of the container 2, 3, and 4, you can click on the mouse and create polygons and those polygons will be created against the container walls.

For the bonus part I implement the first 3:

1. gives it side of polygon a color and when the ball bounce around, it will inherit the color of the wall

2. I start the transparent of 1.0f and each time when hitting the wall, decrease the transparent of 0.05f and after 20 bounces, the shape is fading off.

3. when the side of the container has an odd index it will be impulse down as 0.6 speed when the side index is even it will impulse up to 1.1f.