

Lighting world

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Goals:

The goal of this project is to use different lighting and shading method to simulate the animated object.

User Instructions:

Press M or m to change phong material for the ball in the center

Please use arrow key $\uparrow \downarrow \leftarrow \rightarrow$ to aim the camera in any direction without changing position

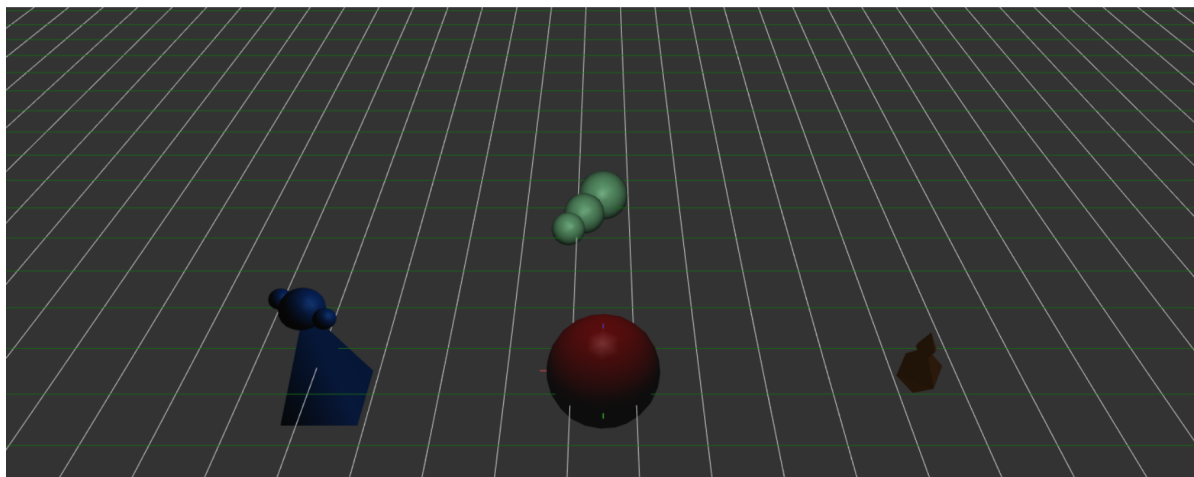
Please use 'w' and 's' for zoom in and zomm out, and use 'a' and 'd' for 'strafe' left and right

Also, you can switch between different lighting mode and drag the slider to change the light position, ambirnt, diffuse, specular.

You can click the corresponding buttons to add distance dependencies (ATT) to lighting

Results

Gouraud Shading+Phong lighting



lights on ☐ Gouraud Shading ☒ Phong lighting ☐

Press M or m to change phong material for the ball in the center
Please use arrow key $\uparrow \downarrow \leftarrow \rightarrow$ to aim the camera in any direction without changing position
Please use 'w' and 's' for zoom in and zomm out, and use 'a' and 'd' for 'strafe' left and right
Shape distortion occurs on the blue balls on the left

light position X: Y: Z:

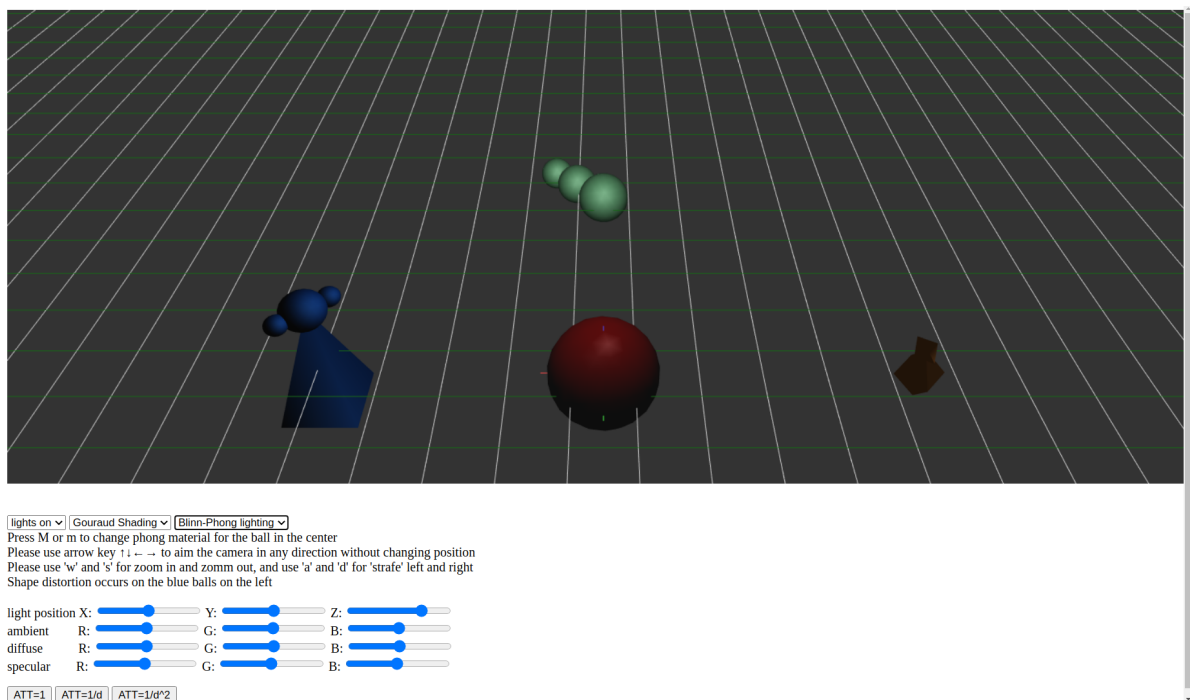
ambient R: G: B:

diffuse R: G: B:

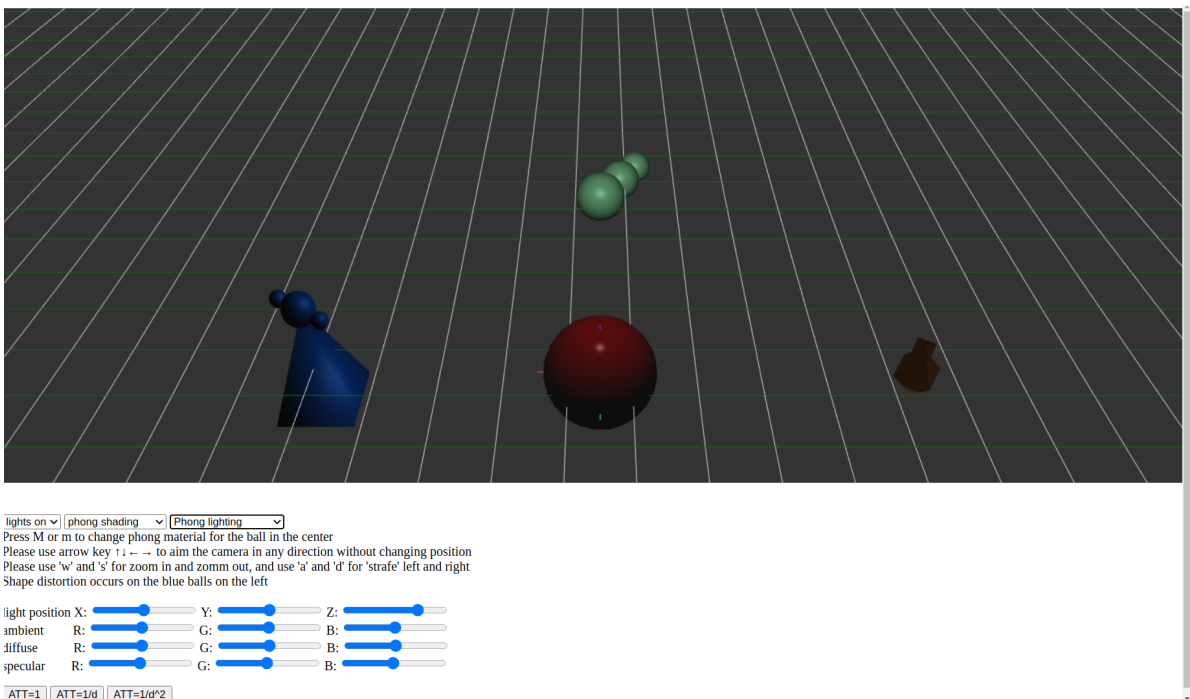
specular R: G: B:

ATT=1 ATT=1/d ATT=1/d²

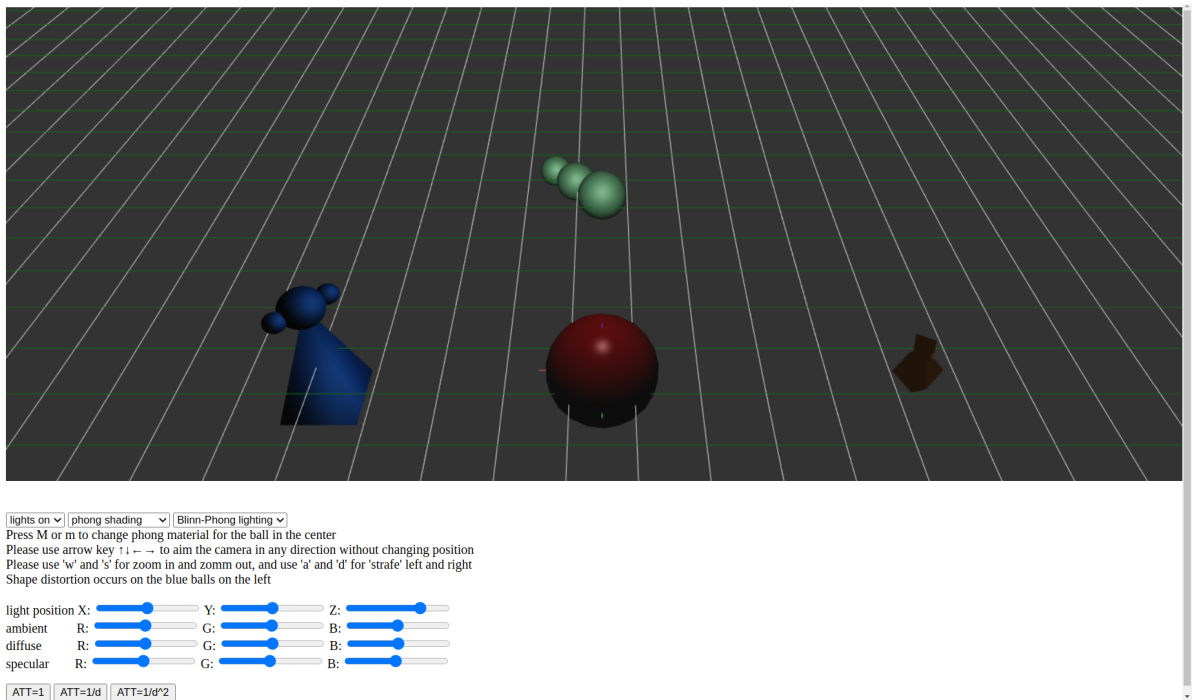
Gouraud Shading+Blinn_Phong lighting



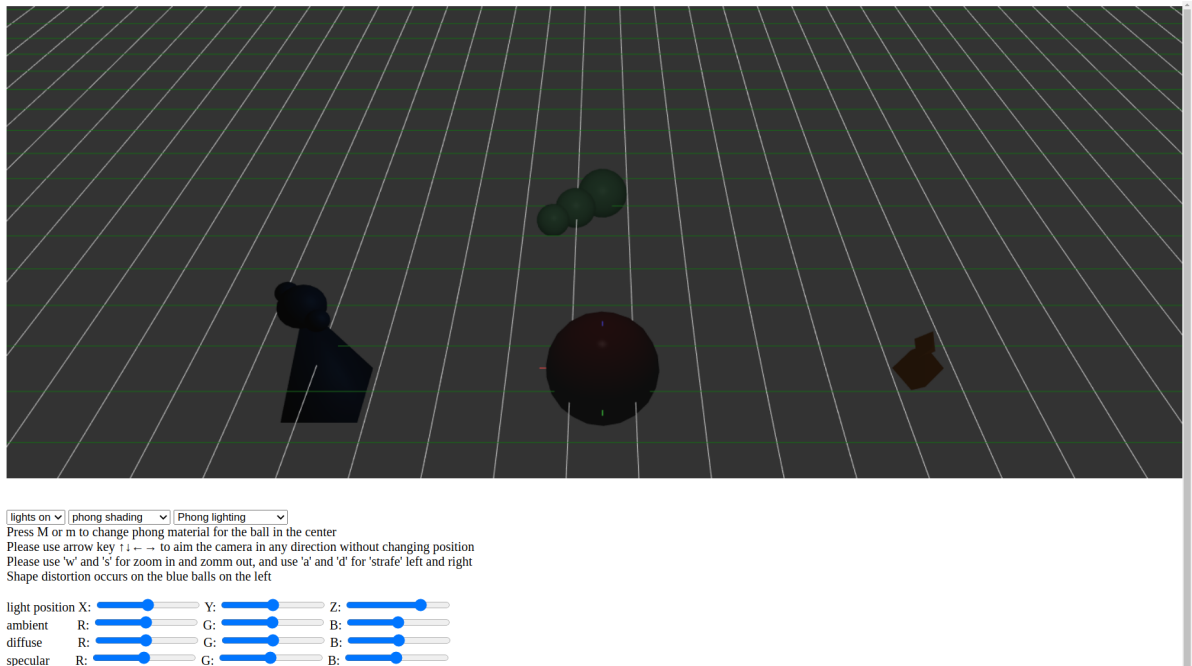
Phong shading + Phong lighting



Phong Shading+Blinn_Phong lighting



change of ATT



Scene Graph

