

Project B: 3D Free Moving Camera

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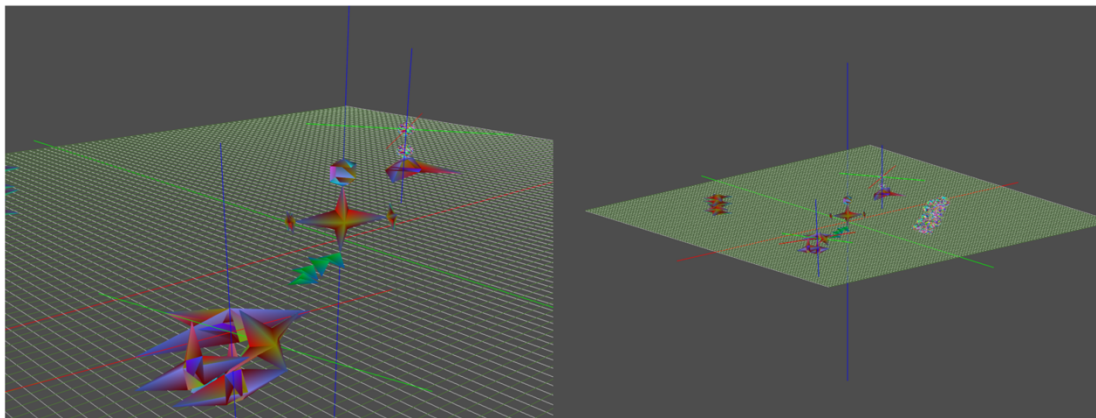
Goal:

My Project has two side-by-side viewports. The left part is Perspective Camera, and the right part is Orthographic Camera. User can control the camera, the camera is able to aim in any direction, move forward/backward in the gaze direction, and 'strafe' sideways left/right from any 3D position.

User's Guide:

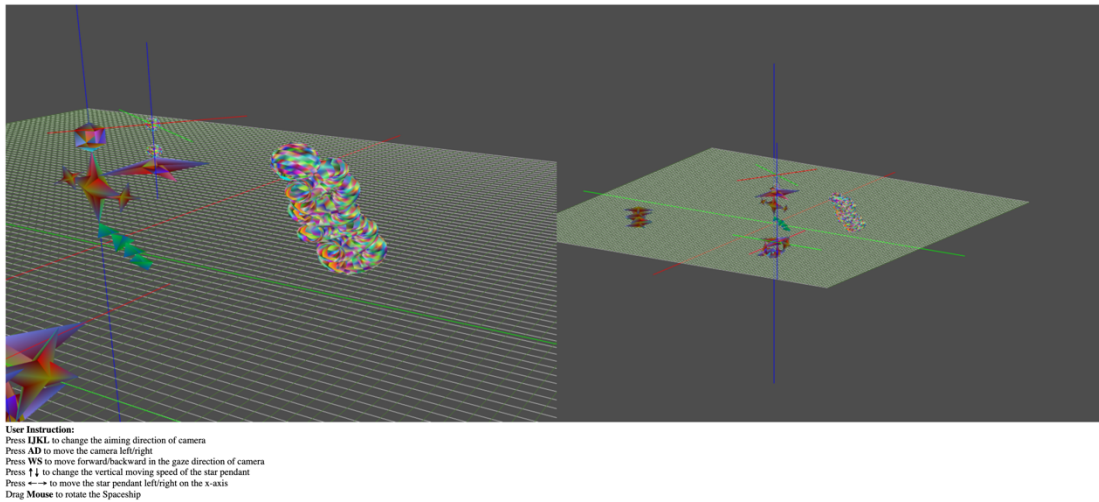
The keyboard input "IJKL" can change the aiming direction of camera without changing the position of the camera. The keyboard input "AD" can move the camera left/right, and the keyboard input "WS" can move the camera forward/backward in the gaze direction. The keyboard input "ArrowUp/ArrowDown" can change the vertical moving speed of the star pendant in the middle of the grid. The keyboard input "ArrowLeft/ArrowRight" can move the star pendant in the middle of the grid along x-axis.

Result:

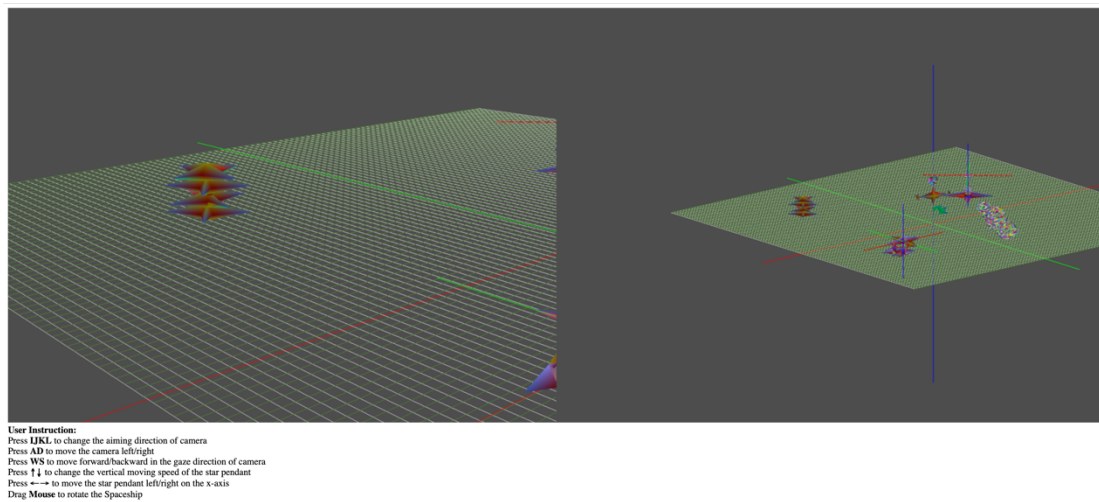


User Instruction:
Press IJKL to change the aiming direction of camera
Press AD to move the camera left/right
Press WS to move forward/backward in the gaze direction of camera
Press Up/Down to change the vertical moving speed of the star pendant
Press Left/Right to move the star pendant left/right on the x-axis
Drag Mouse to rotate the Spaceship

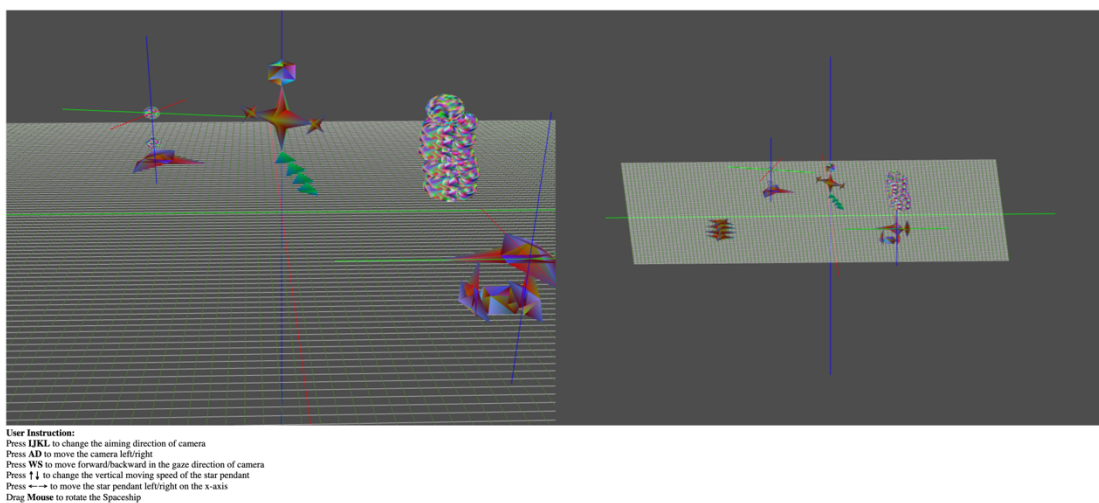
The initial view of the camera.



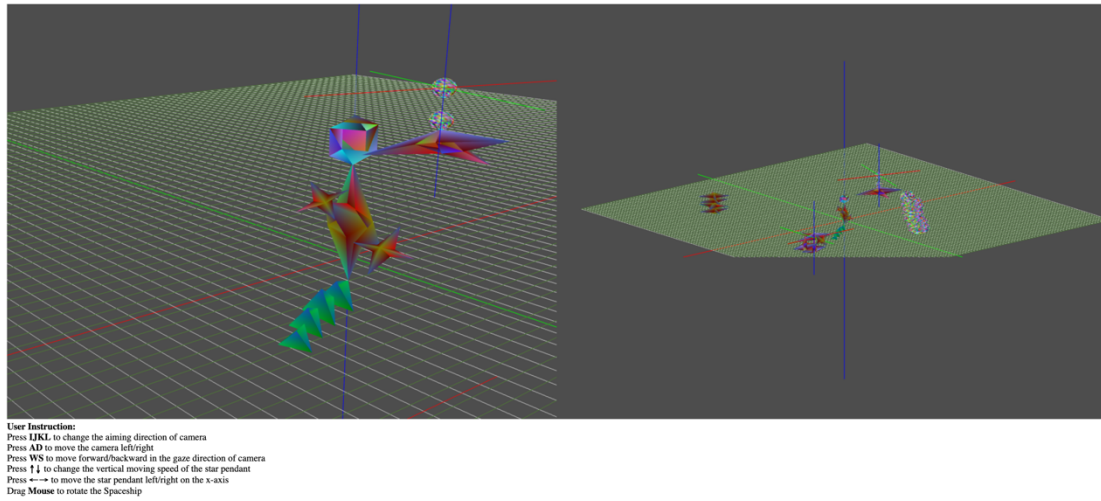
Using keyboard input “IJKL” to change the aiming direction of the camera.



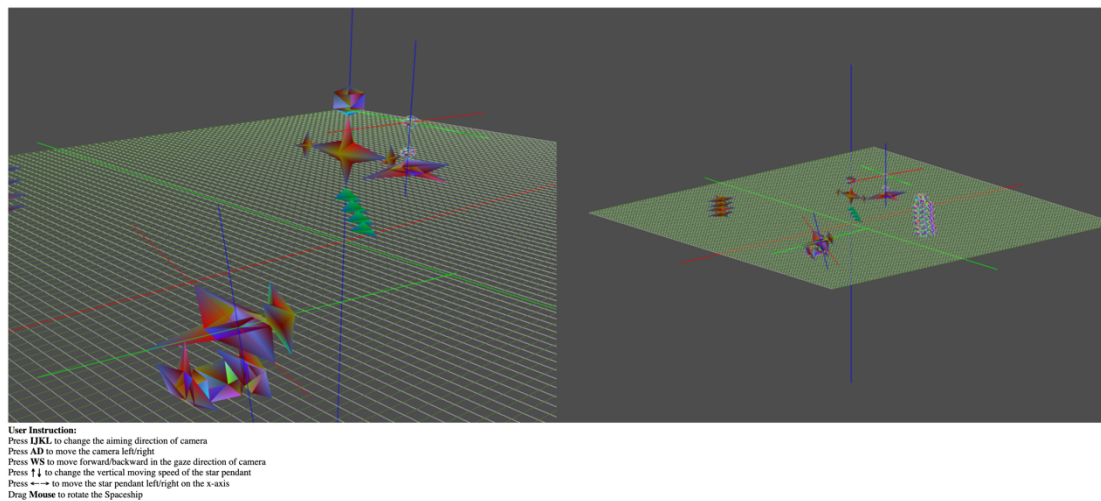
Using keyboard input “AD” to move the position of the camera left/right.



Using both keyboard input “IJKL” and “AD” to change the aiming direction and the left/right position of the camera.



Using keyboard input “WS” to move the camera forward/backward in the gaze direction.



Using mouse to rotate the spaceship.