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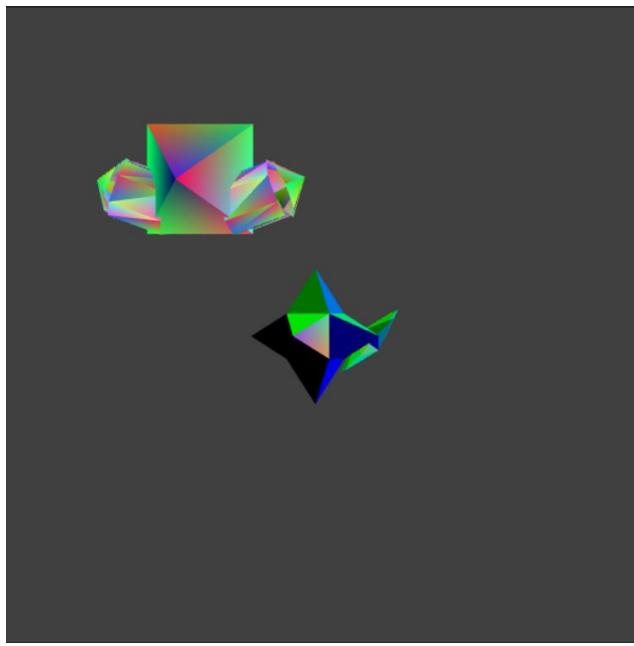
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### Project A: Stars Orbiting Each Other While a Bird Flies Through Space

#### Users Guide

Dragging the mouse around the canvas will move the orbiting stars. Using “-” will slow down the orbit speed of the “bird” while “=” will do the opposite (speed it up). Using “W”, the flap speed of the bird can be increased, while “S” will decrease the flap speed. Using the buttons will do what they say they will. To change the current rotation angle of the bird, one can input the intended rotation angle in the HTML box (this only changes the y rotation of the bird).

#### Results



*Figure 1*

In Figure 1, we can see what the program looks like without any interaction. The “bird” is orbiting around the stars, while the smaller star is orbiting around the bigger star. The bird is also continuously flapping its wings.

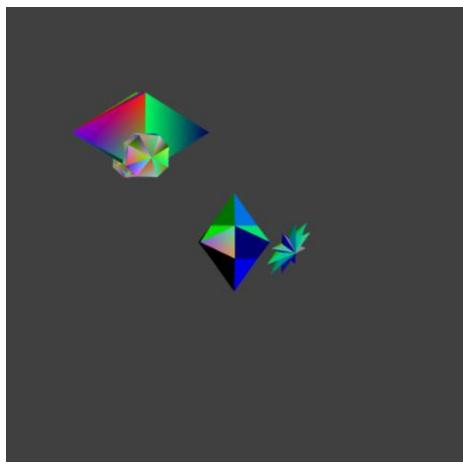


Figure 2

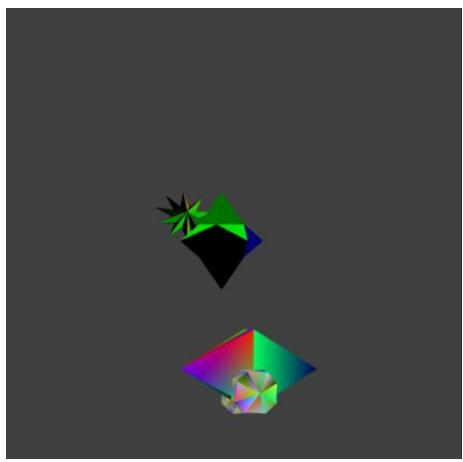


Figure 3

Figures 2 and 3 illustrate what happens when we stop the rotation of the bird.

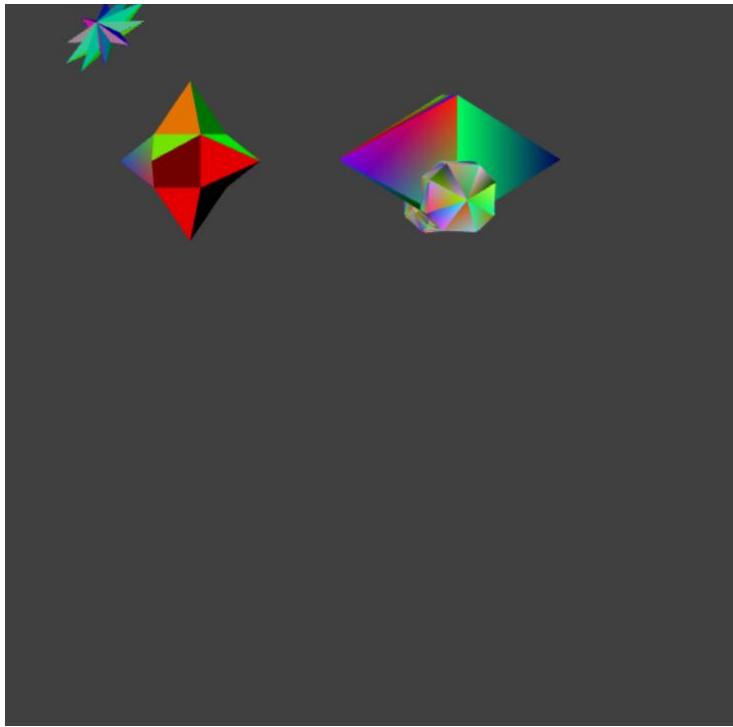


Figure 4

Figure 4 illustrates what happens when we do mouse drag on the canvas. As can be seen, the orbiting stars have moved.

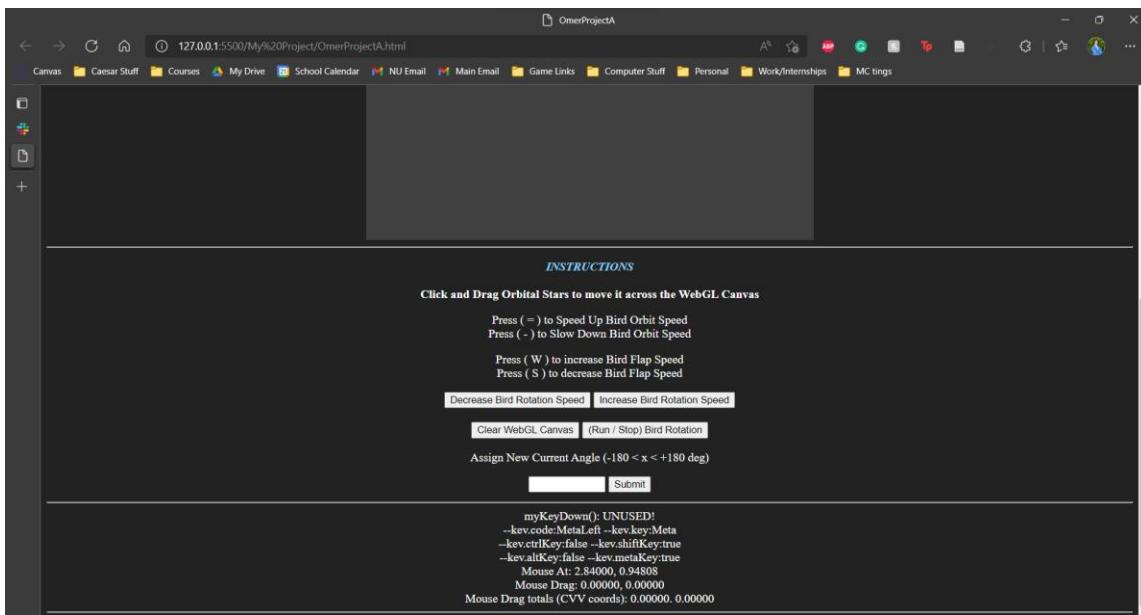


Figure 5

In Figure 5, we can see additional information about which keys are pressed, where our mouse is on the canvas, and some additional information. This is useful for debugging and an interesting display for curious minds.