Project A: Happy Chinese Rooster Year

Name: Mingyang Li
netID: mlr1159

Chinese New Year is coming soon! As it is year of the rooster, I drew a computer graphic of a rooster and a sun for celebration.

With a browser supported canvas, we can see two 3D objects which are a rooster is in the lower left and a sun in the upper right. Both of them are moving and spinning automatically to some extent. And each of them is combined by some basic jointed parts. Besides, the color of the graphic is changing automatically, and the shape of the sun is also changing smoothly overtime.

Under the graphic, you can see several buttons which have different functions if you click them.

The first button, LESS CLOCKWISE, you can speed down the spinning in the direction of clockwise or speed up the spinning in the direction of anti-clockwise if you click it.

The second button, MORE CLOCKWISE, you can speed up the spinning in the direction of clockwise or speed down the spinning in the direction of anti-clockwise if you click it.

The third button, PAUSE/RESTART, you can pause the graphic to not be a static figure or you can restart the graphic to move and spin if you click it.

The forth button, SPEEDUP, you can speed up the spinning if you click it.

The fifth button, SPEEDDOWN, you can speed down the spinning if you click it.

The sixth button, RESET, you can reset the movement of the graphic to the original state if you click it.

Besides, you can also press several keys in the keyboard to implement some functions.

For key H, you can open a User instruction webpage.

For key Q, you can speed down the spinning in the direction of clockwise or speed up the spinning in the direction of anti-clockwise.

For key W, you can speed up the spinning in the direction of clockwise or speed down the spinning in the direction of anti-clockwise.

For key E, you can pause the graphic to not be a static figure. Or you can restart the graphic to move and spin.

For key R, you can speed up the spinning.

For key T, you can speed down the spinning.

In addition, you can also interact with the graphic using the mouse.

For example, if you click in the right part of the graphic, the rooster will move right in one step.

If you click in the left part of the graphic, the rooster will move left in one step.

If you click in the top part of the graphic, the rooster will move up in one step.

If you click in the down part of the graphic, the rooster will move down in one step.

If you click in the lower right of the graphic, the rooster will move both down and right in one step.

If you click in the upper right of the graphic, the rooster will move both up and right in one step.

If you click in the lower left of the graphic, the rooster will move both down and left in one step.

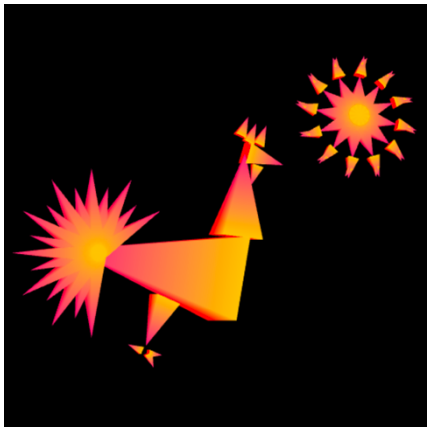
If you click in the upper left of the graphic, the rooster will move both up and left in one step.

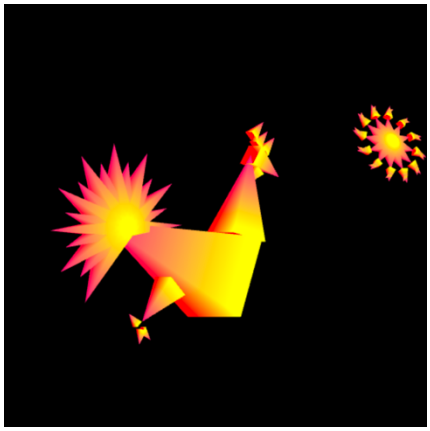
If you drag you mouse, the graphic, the rooster and the sun will change it view of angle in according with your dragging extent.

Under the buttons, there is one paragraph to show the current angle of the two objects spinning. And there is another paragraph to show that the Mouse drag amount.

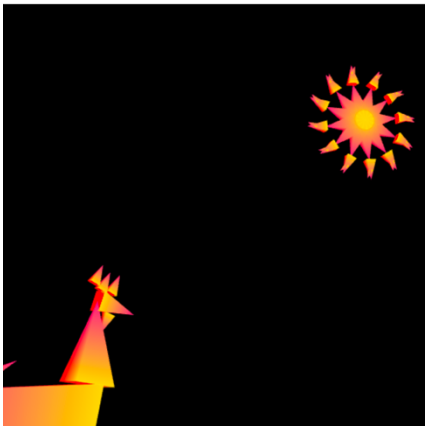
The clear button is for clearing all operations.

The following pictures are the results I cut out from the screen.

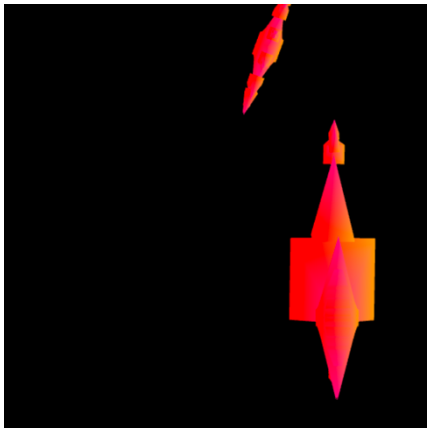


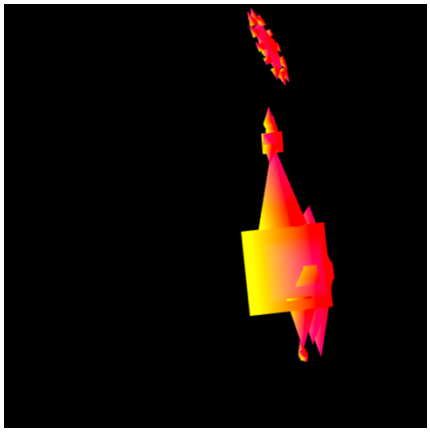


A. Different angle of the graphic



B. Different mouse drag of the graphic





C. Different move position of the graphic

Following is the program's scene graphic.