

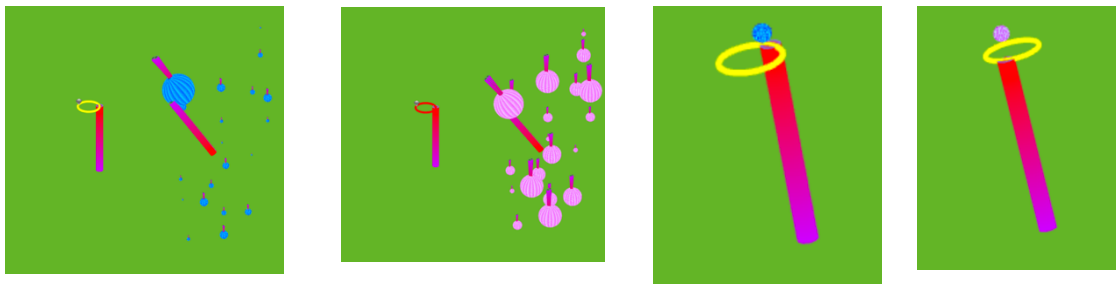
## Project A: Spinning ring and Spinning rabbit's head.

Junhan Liu jlt587

Goals: 1) The stick on the left was designed to implement the mouse-dragging interaction. While dragging the mouse on the canvas, the shape will move with the stick and rotate according to the distance. 2) The stick on the right was designed to implement the keyboard interaction. User can adjust the position and size of the head by pressing keys on the keyboard. Also users can adjust the speed of the movement by pressing the button under the canvas. 3) By double clicking on the canvas, user can draw new rabbit's head on the canvas, and the balls can reshape with time elapsing. 4) The ring will twinkle, and the color of the balls changes from blue to purple with time collapse.

User's Guide:

Mouse Interaction: 1) Double click on the canvas to draw new rabbit. The size of the rabbit will change over time. 2) Drag on the screen to move the stick on the left. By moving horizontally, the ring will spin around the stick, and the diamond on the ring will also spin around the center of the ring. By moving vertically, the stick will spin around a point at itself.

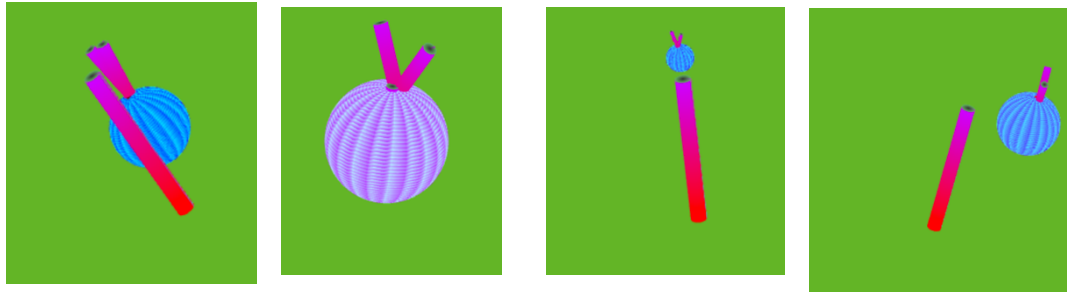


Keyboard Interaction: Press "s" to stop animation. Press "r" to return the original status. Press "b" and "l" to adjust the size of the rabbit's head. "b" to make the head

bigger, and “I” to make it less. Press arrows to adjust the position of the rabbit’s head.

Left to make the head away from the center, and right to make the head near the

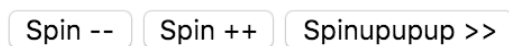
center. Press up arrow to uplift the head and down arrow to lower the head.



Webpage Interaction: Press the buttons under the canvas to adjust the speed. “Spin -

- ” to make the head spin slower, and “Spin ++ ” to make the head spin faster.

“Spinupupup >> ” to make the head crazy.



Transform Tree:

