Project A: swimming model and planetary system

Goal

Design and draw two different 3D parts which have two or more sequential, moving joints.

User-guide

Open the html file, there are one sequential rectangles, which models the posture of swimming, and a planet system, where three small balls spin around a big ball.

1. Press a button "Spin<<" as following to make to the graphics rotate to left more quickly. If graphics are spinning towards right, the spinning speed will slow down.

P1

2. Press a button like P2 to make it graphics to spinning to right quickly.

P2

3. Press "Run/Stop" to run the movements of graphics or stop them.

P3

4. Use mouse to drag the graphic to observe graphic with different view.
5. Click on canvas with mouse to relocate the rotation center of planetary system。
6. Stop the graphic quickly through press "Space" on the keyboard.

Result

This is the beginning of my graphics. The smaller balls will spin around the biggest ball.
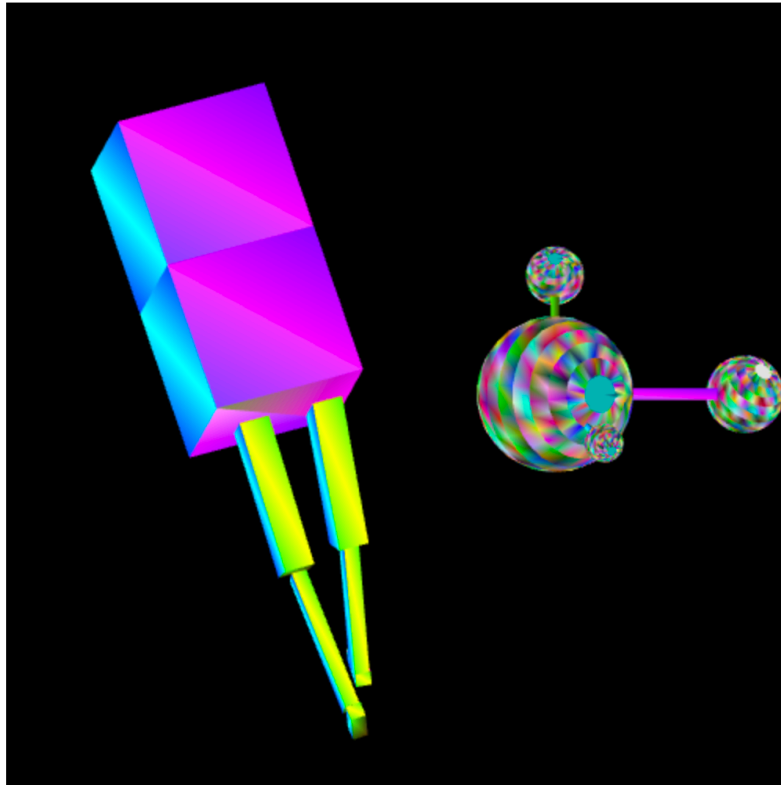

Figure 1

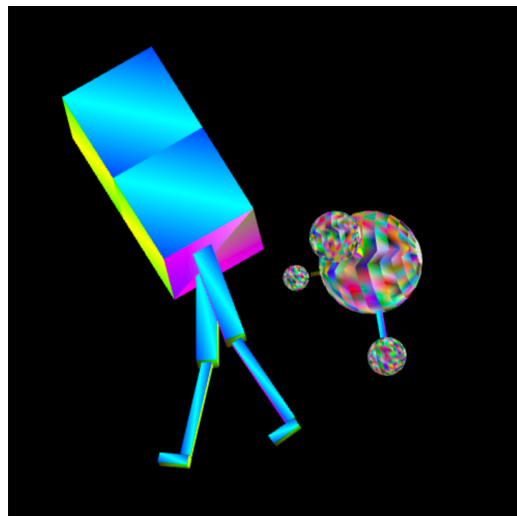Then if dragging the graphic with mouse, the following picture appears.

Figure 2

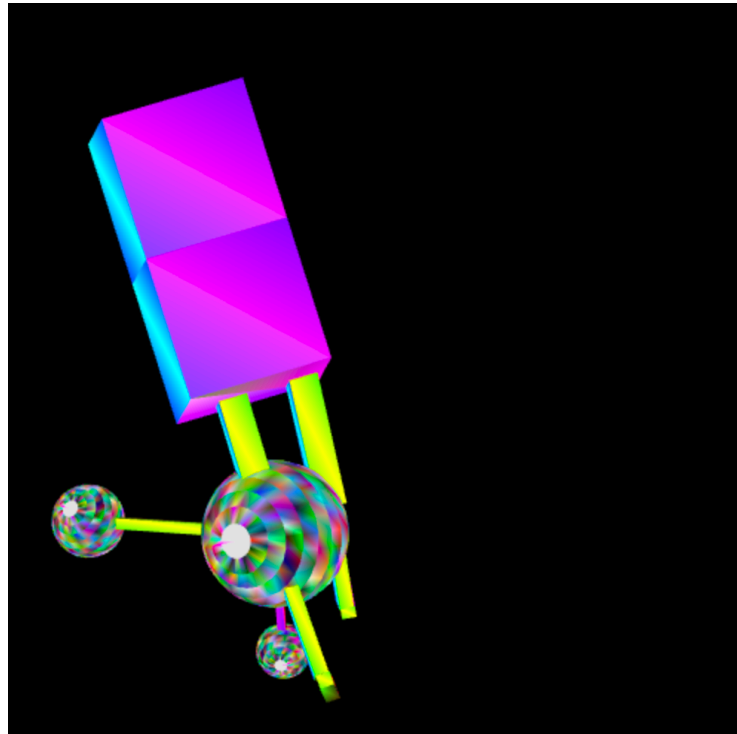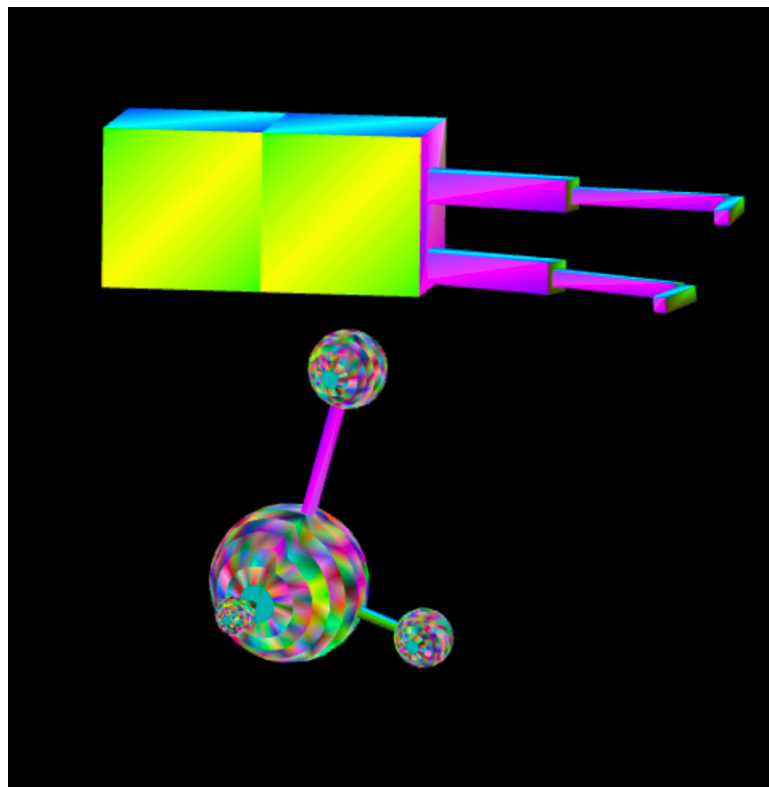Clicking on the canvas, the planetary system will relocate at a new address.

Figure 3

Figure 4

Sketch of program's scene-graph

The tree of swimming graphic

Draw the first rectangle
(SetTranslate)

Draw the second rectangle

Draw the first thigh

Draw the second thigh

Draw a clap

Draw a clap

Foot

foot

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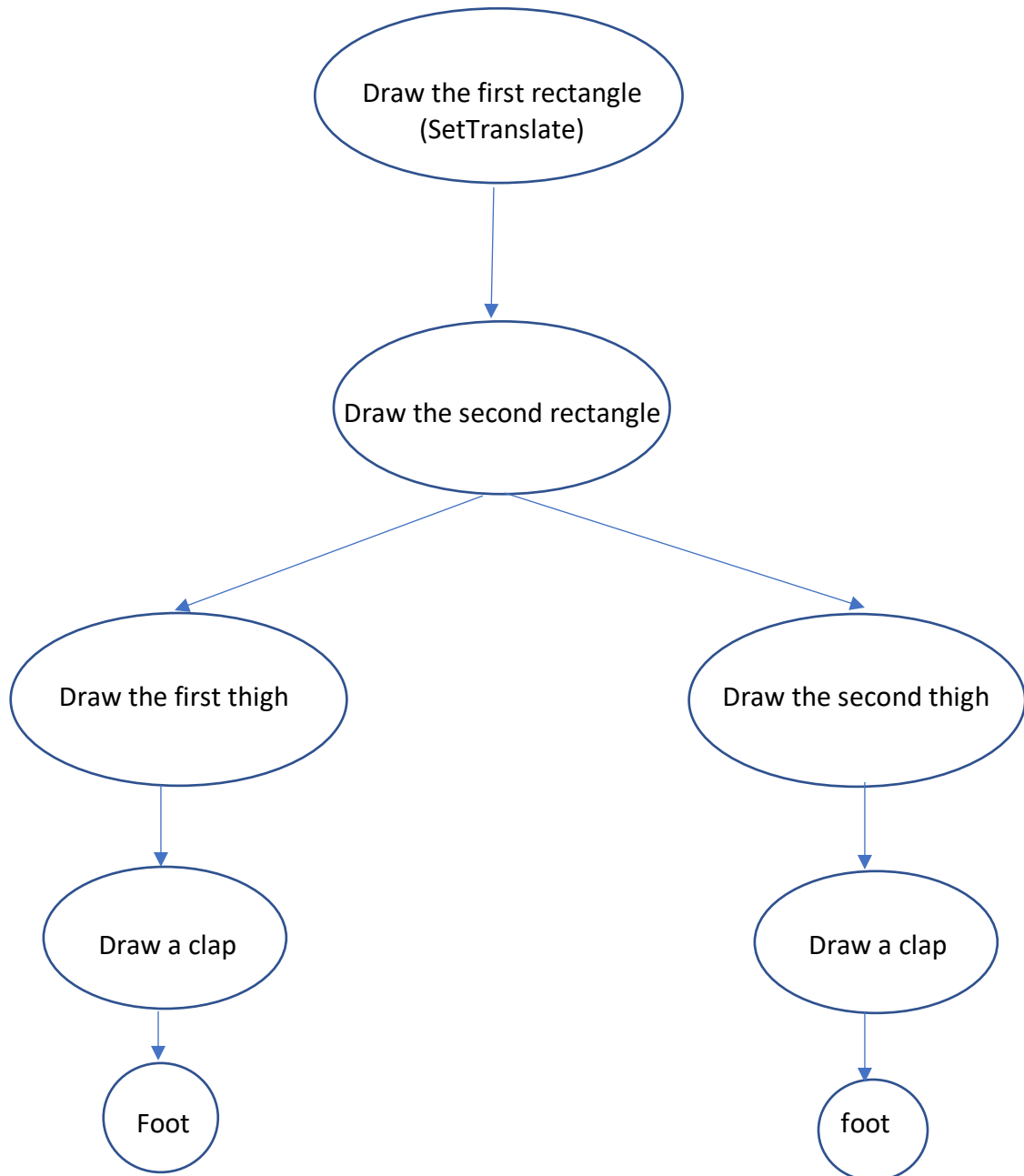
The tree of planetary system

Draw the sphere as sun
(SetTranslate)

Draw a strip

Draw a strip

Draw a strip

Draw a planetary

Draw a planetary

draw a planetary