Simplified Pikachu

A) Information

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B) User guide

Performance:

I design a simplified Pikachu using simple shape like circle in 2D, and cube, tetrahedron in 3D. My goal is to perform all its features just in a more simple way, but it can still be seen as Pikachu.

Instruction:

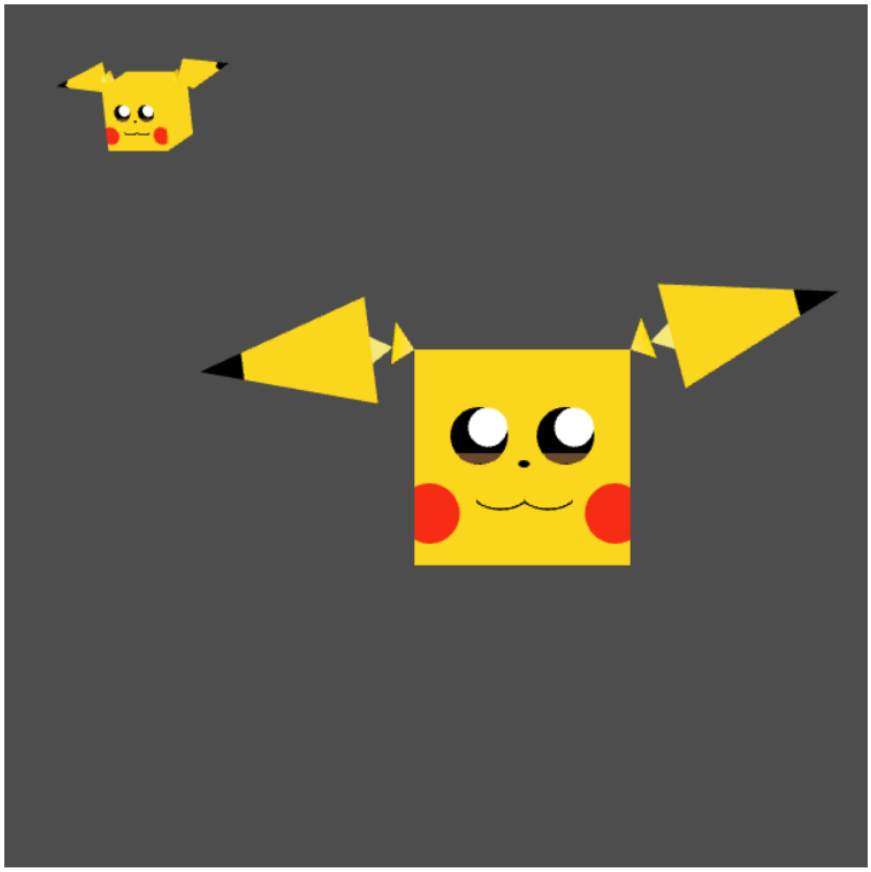
You can see a bigger model in the middle and a smaller one in the top left corner of the canvas. For w, a, s, d keys, they can control the bigger Pikachu to move up/left/down/right. And you can see the key result “You press X key” in the third line on the right. Only w/a/s/d can be used to control movement, otherwise you will see “myKeyDown():UNUSED!”. You will see two numbers to record your mouse position behind ‘Your location is…’. For mouse drag, you can drag the bigger one to see its left, right, back, front, upper, bottom with one fixed point.

For the bigger model button, you can control its ear part speed. ‘Speed<<’ means slow down the rate. ‘Speed>>’ means Speed up the rate. ‘Run/Stop’ means you can stop its ears from waving or start again. The Rate are displayed on the right as well. ‘leftEar_Rate’ means the left ear

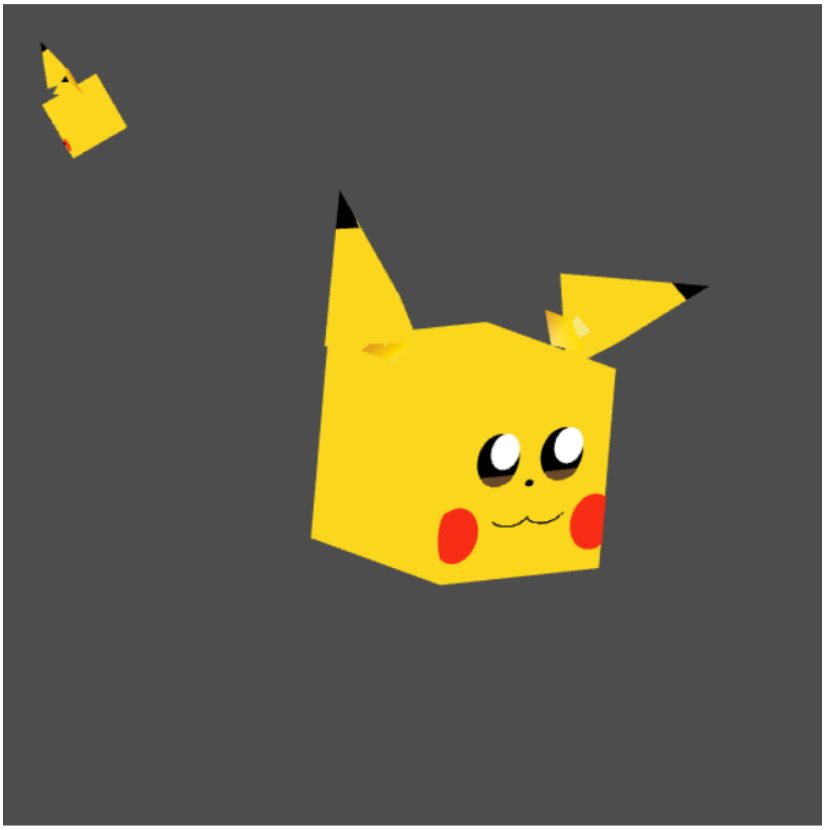
speed. ‘rightEar_Rate’ means the right ear speed. And the speed can only be reduced to 0. That means your speed need to be bigger than 0.

For the MiniModel button, you can control its speed to rotate around in a circle. ‘Run/Stop’ means you can stop it from rotating but it can still swing up and down. ‘Spin<<’ means you decrease the rate from left to right. When it decreases to negative, it can rotate in the opposite direction. ‘Spin>>’ means you increase the rate from left to right. And you can decide the angle for the MiniModel to start. Type in the angle you want, click the ‘Submit’ button. ‘g_angle01’ means the start angle.

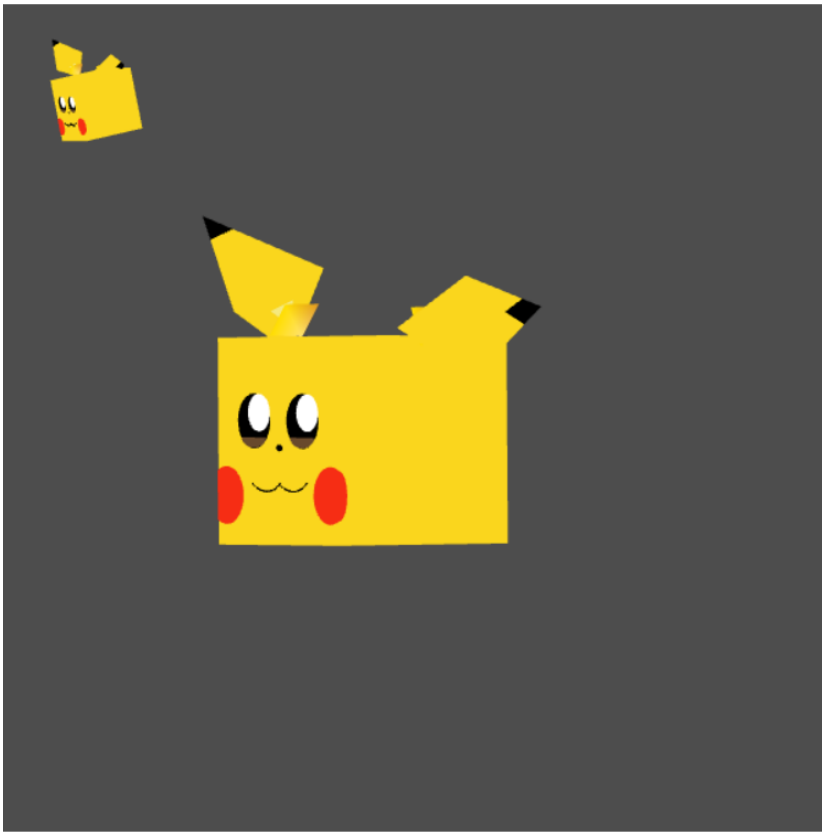
C) Results



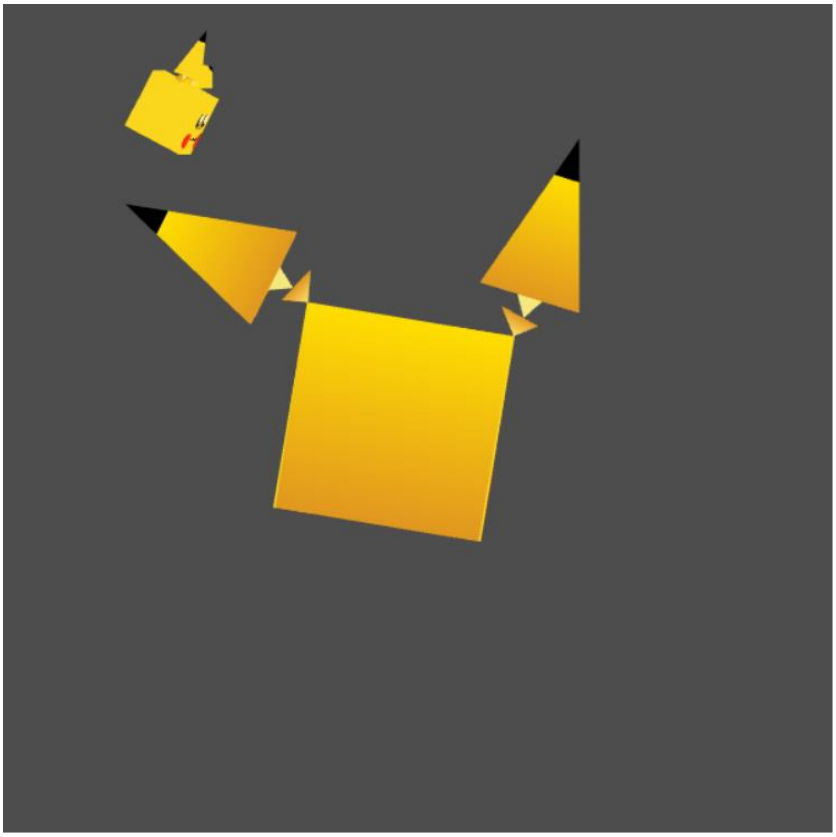
(a)



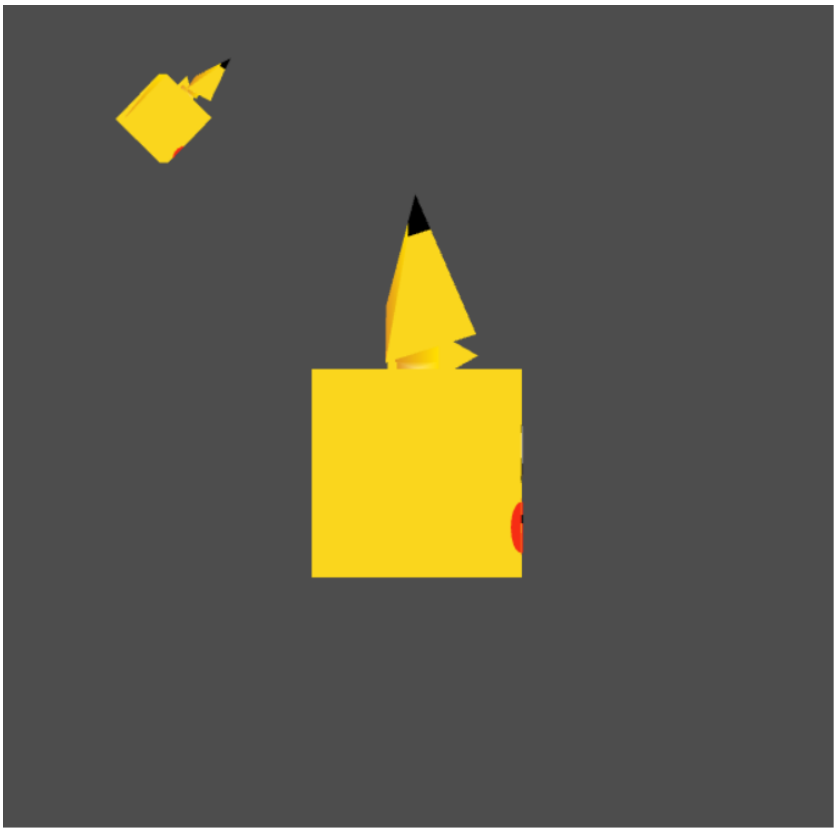
(b)



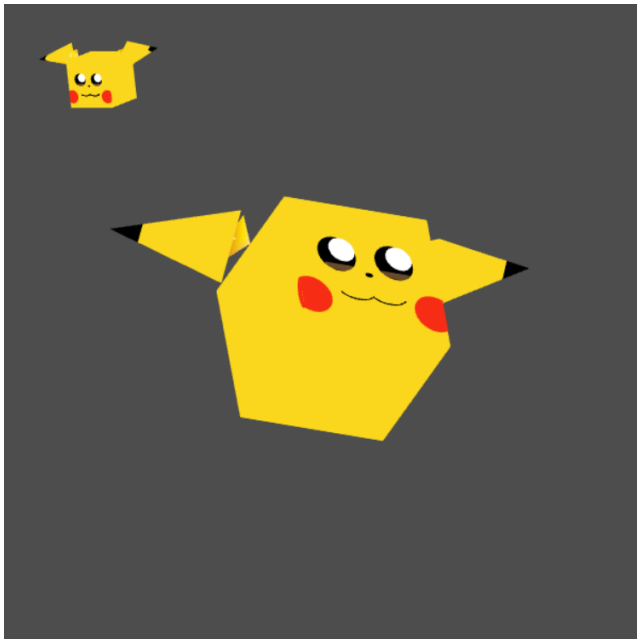
(c)



(d)



(e)



(f)

(a) is the front view of the bigger model. (b) you can see the left side of the bigger model. (c) is for the right side. (d) displays the back side. (e) is the left view of the bigger model. (f) shows the bottom side.

D) Scene-graph