

CS351-Project A: A Dog Sit in a Purple Loop Waiting For Petting

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1 User's Guide:

1.1 My Goals:

I really like dogs though I never can have one with me. So, I decided to “build” one on my own. This project is formed with a dog named “Peanut” because of his color (not an obj found on the internet, every vertex drawn by myself), a bone, a loop that can rotate, and a randomly floating cloud.

I want to make Peanut can be pet to sit at any time. He can hear your command to run, walk, or just sit down. Also, when he is sitting, the loop should stay static. When Peanut is running or walking, the loop will rotate depending on his speed. (You know, as the law of inertia). Meanwhile, the cloud is always floating around the scene randomly.

There will be a bone that you can use to encourage him to run. When the bone is near to Peanut, he will run so that he thinks he can get the bone. Will the bone is above his head for a long distance, he will forget it and just walk in the loop.

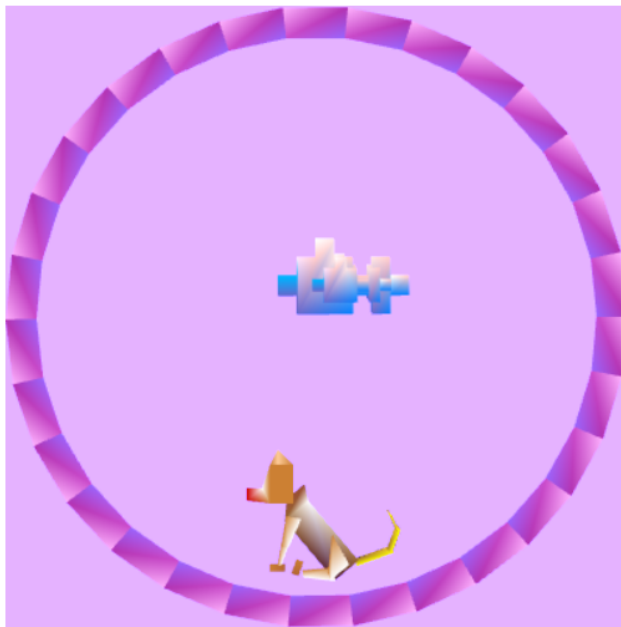
1.2 Instruction:

Here are something you can do to interact with the scene:

- The whole cute scene can be seen from different degrees. Type your view degree in the “New Current Angle” and submit it.
- “Peanut” will always be sitting when you open the HTML in Chrome.
- There’s a cloud floating randomly on the screen.
- You can press “B” to offer little Peanut a delicious bone. (Or press again and take it away)
- You can use the mouse to turn the bone at different angles.
- You can also use the keyboard to move the bone.
- You can click “Clear” to reset the bones’ position.
- You can click Sit/Run button to pet Peanut or give him the command to run. He will run to the bone quickly and lead the loop rotating with him.
- If you move the bone far away from Peanut (by moving the bone above his head for a long-distance), he will miss the bone and start to walk slowly. The loop under his paws will rotate slowly.
- You can always pet Peanut by clicking the Sit/Run button. He will sit lovely again or run again.

2 Result:

- When people open the web, little “Peanut” will sit in the center of the loop and wait for you as shown in the picture 1:



(If there's no figures, open Console, please!)

Type in different angle to see the scene! -- 0 for reset

g_angle01= 0.00000

New Current Angle (-180 < x < +180 deg):

Try press "B" and find what will happen!

Telling the dog to sit or run by pressing button below!

Try dragging the screen or press "W", "A", "S", and"D"!

Try keyboard & mouse click/drag inside the canvas, and:

KeyDown:

KeyMod :

.. ..

Figure 1: Scene Graph

- You can change the view degree by typing in a new angle in “New Current Angle”. Figures below are two scene from 60 degree and 90 degree.



(If there's no figures, open Console, please!)

Type in different angle to see the scene! -- 0 for reset

g_angle01 = 60.00000

New Current Angle (-180 < x < +180 deg):

You Typed: 60



(If there's no figures, open Console, please!)

Type in different angle to see the scene! -- 0 for reset

g_angle01 = 90.00000

New Current Angle (-180 < x < +180 deg):

You Typed: 90

(a) 60 degrees

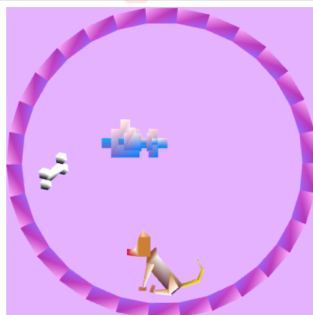
(b) 90 degrees

Figure 2: Diagram of different view scene

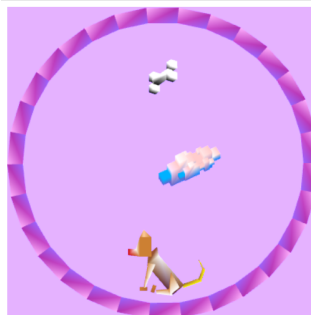
- Press “B” to offer Peanut a delicious bone. The bone can be dragged and moved.



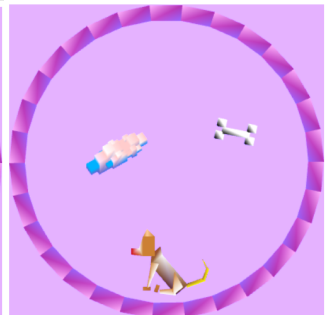
(a) Original position



(b) Dragged



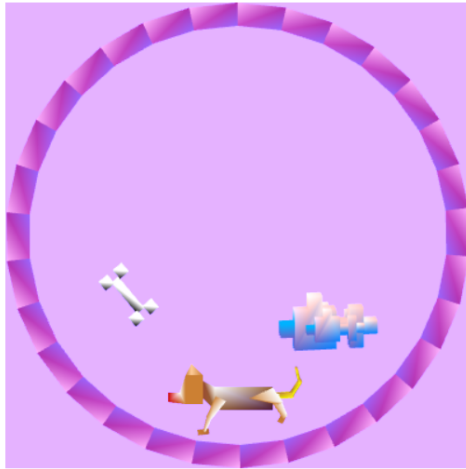
(c) keyboard moved 1



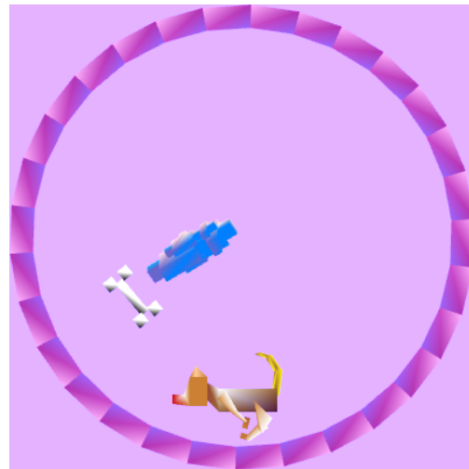
(d) keyboard moved 2

Figure 3: Diagram of different actions on the bone

- Clicking the “Sit/Run” Button to let him run:



(a) dog running 1



(b) dog running 2

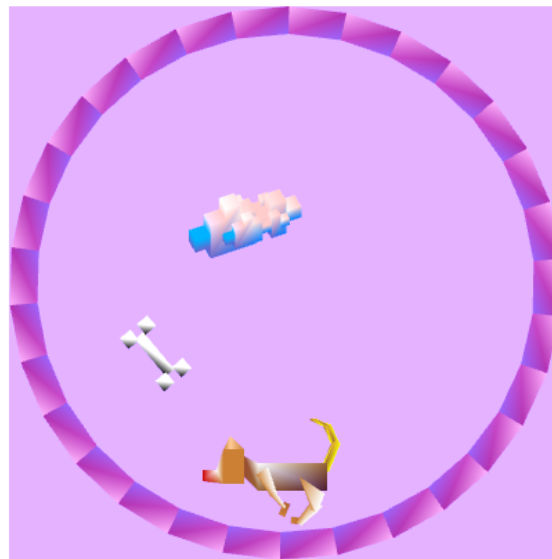
Figure 4: Diagram of running

- When the bone is far away from Peanut, he will walk instead of running. Also, the loop will slow down with him.



Figure 5: Dog's walking

- You can use the button "clear" to reset the bone's position:



(If there's no figures, open Console, please!)

Try in different angle to see the scene! -- 0 for reset

g_angle01= 0.00000

New Current Angle (-180 < x < +180 deg):

You Typed: 0

Try press "B" and find what will happen!

Telling the dog to sit or run by pressing button below!

Try dragging the screen or press "W", "A", "S", and "D"!

Try keyboard & mouse click/drag inside the canvas, and:

myKeyDown(): UNUSED!

--kev.code:ShiftLeft --kev.key:Shift

--kev.ctrlKey:false --kev.shiftKey:true

--kev.altKey:false --kev.metaKey:true

Mouse At: -0.90000, 0.94800

Mouse Drag: 0.00000, 0.00500

Mouse Drag totals (CVV coords): 0.00000, 0.00000

What's happening if you press "W" longer? >

Figure 6: Reset the bone's position

3 Scene Graph:

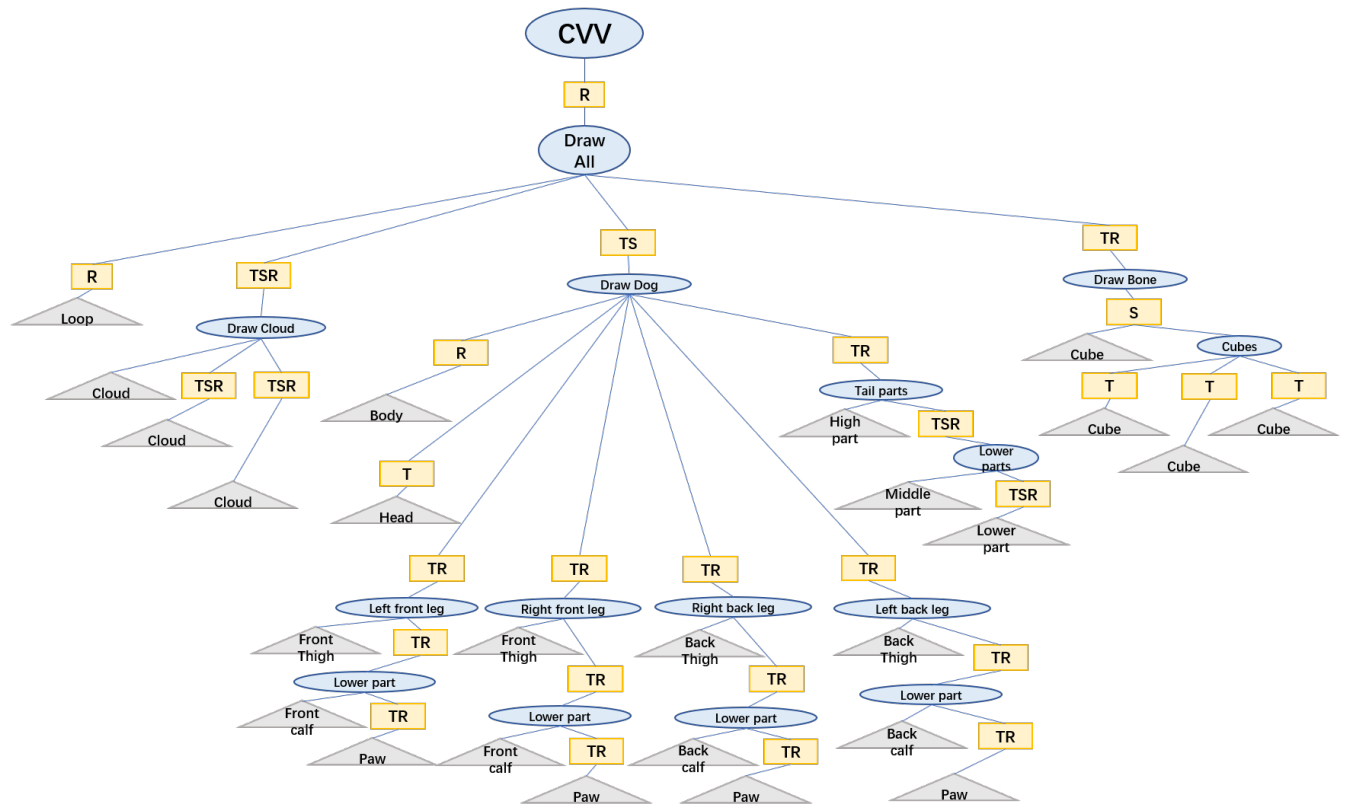


Figure 7: Scene Graph