**AgentCubes Online Troubleshooting Session Guide**

**Overview:** This document illustrates common problems encountered by students, especially in the early stages of working with AgentCubes. Each example has a counterpart AgentCubes Online project that can be examined to determine the cause of the problems. There is a companion document with detailed explanations of the problems and suggested solutions.

1) **Frog will not move in certain directions:** Run the simulation at the link below and move the frog using the arrow keys. *What happens? Examine the frog agent behavior. What is the problem? How would you correct it?*

   [https://www.agentcubesonline.com/project/59472](https://www.agentcubesonline.com/project/59472)

![Frog simulation](image1.png)

2) **Cars get stuck in front of the right tunnel:** Run the simulation at the link below. In this example, the cars get stuck and “queue” up in front of the right tunnel. *Why is this occurring? How would you correct the problem?*

   [https://www.agentcubesonline.com/project/59570](https://www.agentcubesonline.com/project/59570)

![Cars simulation](image2.png)
3) **Cars get stuck on right tunnel:** Run the simulation at the link below. In this example, the cars pile up on top of each other on the right tunnel. *Why is this happening? How would you correct this?*

https://www.agentcubesonline.com/project/59571

4) **Repeated sound and message displayed:** Run the simulation at the link below. Move the frog in front of a car. After the honk sound and the dialog is displayed, tap “OK” in the dialog window. *What happens? Why is this happening? How would you correct the problem?* NOTE: In order to clear the problem, you will use your keyboard and mouse* at the same time: press the “Enter” key while you simultaneously tap the “stop” button on the tool bar; you may have to do this multiple times!

* You may have a trackpad or other device instead of a mouse.

https://www.agentcubesonline.com/project/59572
5) **Continuous sound**: Run the simulation at the link below. You will hear a continuous honking sound. The world viewport may go completely black. *Why is this happening? How do you think this occurred? How would you correct it?* NOTE: You may need to reload the web page in order to stop the sound.

https://www.agentcubesonline.com/project/59573

6) **Too many turtles – Reason A**: Run the simulation at the link below. Notice the number of turtles emerging from the island. *Why are there so many? How can you correct this problem most efficiently?*

https://www.agentcubesonline.com/project/59575
7) **Too many turtles – Reason B:** Run the simulation at the link below. Notice the number of turtles. *Why are there so many? How can you correct this problem most efficiently?*

[Link](https://www.agentcubesonline.com/project/59654)

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8) **Too many turtles – Reason C:** Run the simulation at the link below. *Why are there turtles in the upper log lane? How can you correct this problem most efficiently?*

[Link](https://www.agentcubesonline.com/project/59652)
9) **Too many turtles – Reason D:** Run the simulation at the link below. Notice the number of turtles emerging from the island. *Why are there so many? How can you correct this problem?*

[https://www.agentcubesonline.com/project/59655](https://www.agentcubesonline.com/project/59655)

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10) **Clock problems:** Before running the simulation at the link below, examine the behavior of each agent (Light, Light3, and Mover). Decide the behavior you expect; then run the simulation. *Is the behavior as expected? Why not? How would you change the behavior to accomplish what appears to be intended?*

[https://www.agentcubesonline.com/project/59657](https://www.agentcubesonline.com/project/59657)
11) **Super frog is not super**: Before running the simulation at the link below, examine the behavior of the Super_frog agent. Verify that the Super_frog’s rules should allow it to move anywhere in the world without a problem. Now test the Super_frog, as follows: erase the Frog from the world, add a Super_frog in its place with the pencil tool, then run the simulation and move the Super_frog throughout the world using the arrow keys.

Next, stop the simulation and reload the world. Run the simulation and use the arrow keys to move the Frog agent to the far right of the bottom row, where being on top of the Power_up agent should cause it to change to a Super_frog. Finally, navigate the Super_frog agent to the goal. *What happens? Why does it not behave as expected? What would you change to make this work?*

https://www.agentcubesonline.com/project/59660

12) **Super frog win error**: Run the simulation at the link below. Move the Frog onto the Power_up agent to transform it into a Super_frog agent. Then move the Super_frog agent to the goal to win. *What happens? Why? What change is required to make this work?*

https://www.agentcubesonline.com/project/59662
13) **Simulation does not end:** Before running the simulation at the link below, select the Timer agent in the world and open the Agent Attributes window. Now run the simulation. The attribute should be incremented to 10, at which point the simulation should end. *What happens and why?*

https://www.agentcubesonline.com/project/59665
14) **Backward operation – Part 1 of 2:** Run the simulation at the link below using the “standard world” world, which should look like the first image below. Move the frog up to the river to verify that the simulation works as expected. Next, select “new world_2”, which should look like the second image below. Run the simulation and note that the arrow keys seem to work backward. Why? What do you think the designer did to cause this? How can this be corrected?

https://www.agentcubesonline.com/project/60328
15) **Backward operation – Part 2 of 2:** Using the same project as in the previous example, select “new world_1” and attempt to place any agent into the world. *What happens? Why? What do you think the designer did to cause the problem? How can it be corrected?*