

Save Schrödinger's Cat Game

Based on the rules of a videogame called Quantum Odyssey by quarksinteractive.com

Dr. Schrödinger is conducting a classic quantum experiment! He has built a steel chamber in which he has placed a Geiger counter along with a tiny bit of radioactive substance, an amount so small that perhaps in a matter of minutes one of the atoms will decay, but perhaps, with equal probability, none of the atoms will decay. If this does happen, the counter tube will discharge, then through an electromagnet activated by a signal, release a hammer that shatters a flask of sleeping gas.

Dr. Schrödinger leaves the office for the night to feed his cat.

You are his lab assistant, and you are certain that if one of the atoms decays, the flask would surely break inside the steel chamber and the gas would put everything inside the chamber to sleep. As you ponder upon the experimental details, you hear a sudden "Meow!" coming from the steel chamber.

Oh no, Schrödinger's Cat must have sneaked inside the chamber searching for food!

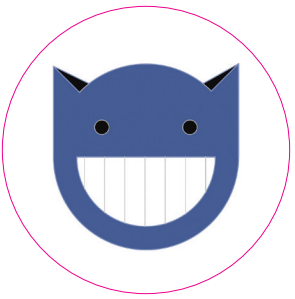
You must quickly use your knowledge of quantum and Save Schrödinger's Cat!

How to Win

The purpose of the game is to start from one of the **Challenge Scenarios**, place the **cat token** as indicated in each scenario and then figure out and place down the right sequence of **Quantum Gates** to create a quantum path for the cat token to arrive from the initial state (given in the Challenge Scenario) to our desired final state: a single **blue** cat token on the **Awake** state. This will stabilize the atom and keep Schrödinger's cat awake.


You win a Challenge if you manage to obtain on the last card a **single, blue-colored token** at the end of an uninterrupted sequence of quantum gate cards.

All quantum gates you placed should remain in place until you solve the Challenge Scenario. They represent the **Quantum Algorithm** you create to achieve the final state (**blue** cat token on the Awake state) out of an initial state given by the Challenge Scenario. There is more than one way to solve a problem!




SLEEP

Place one



here

..and one




here

AWAKE

SLEEP

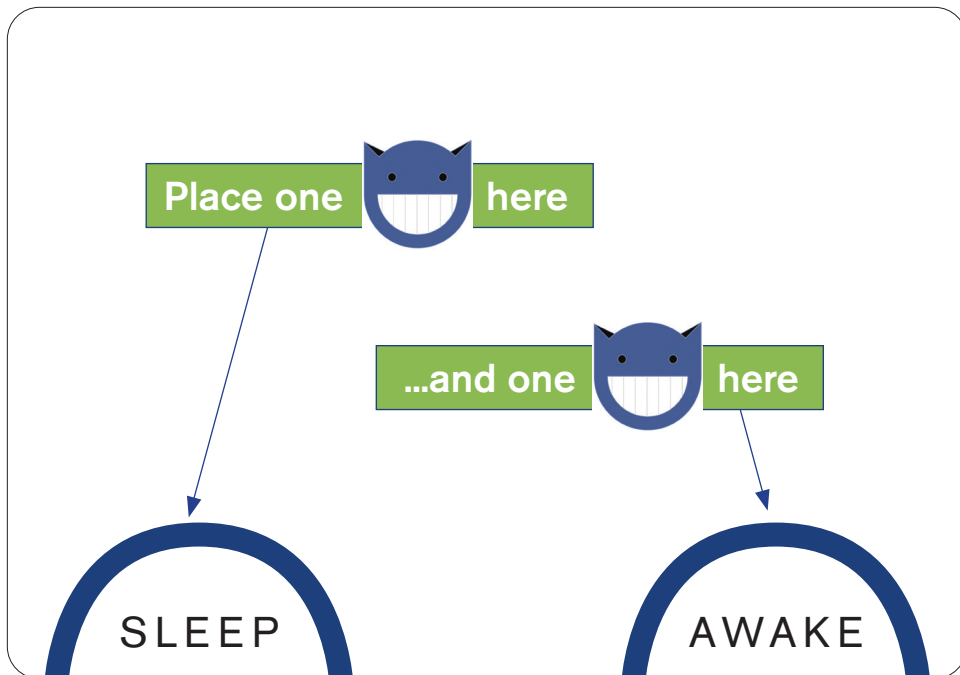
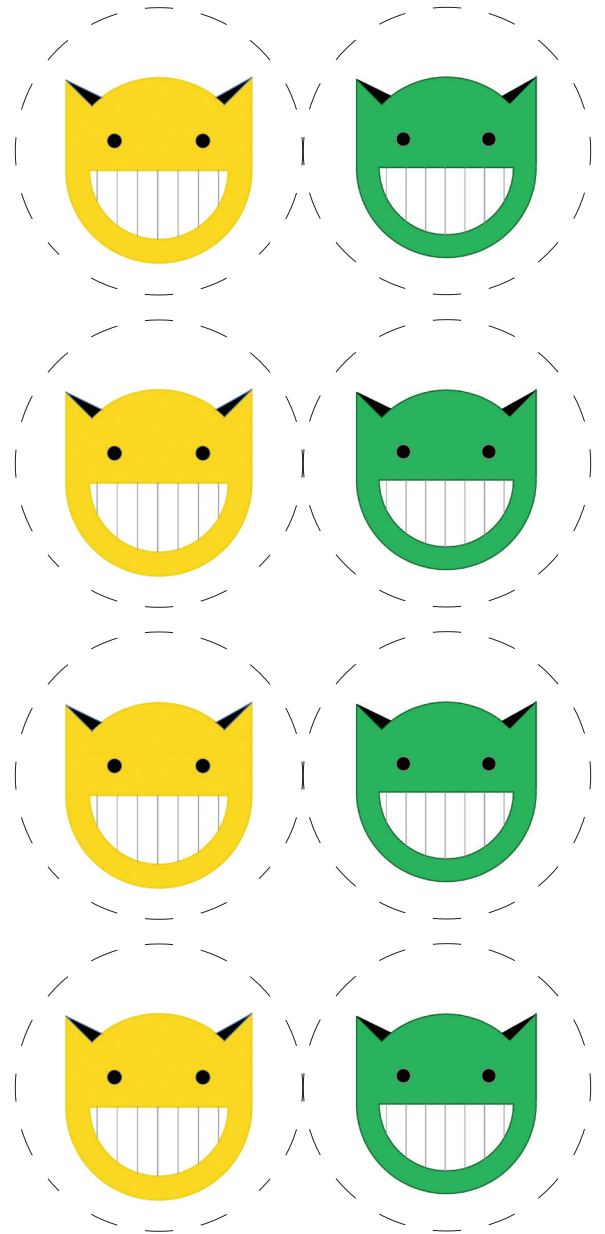
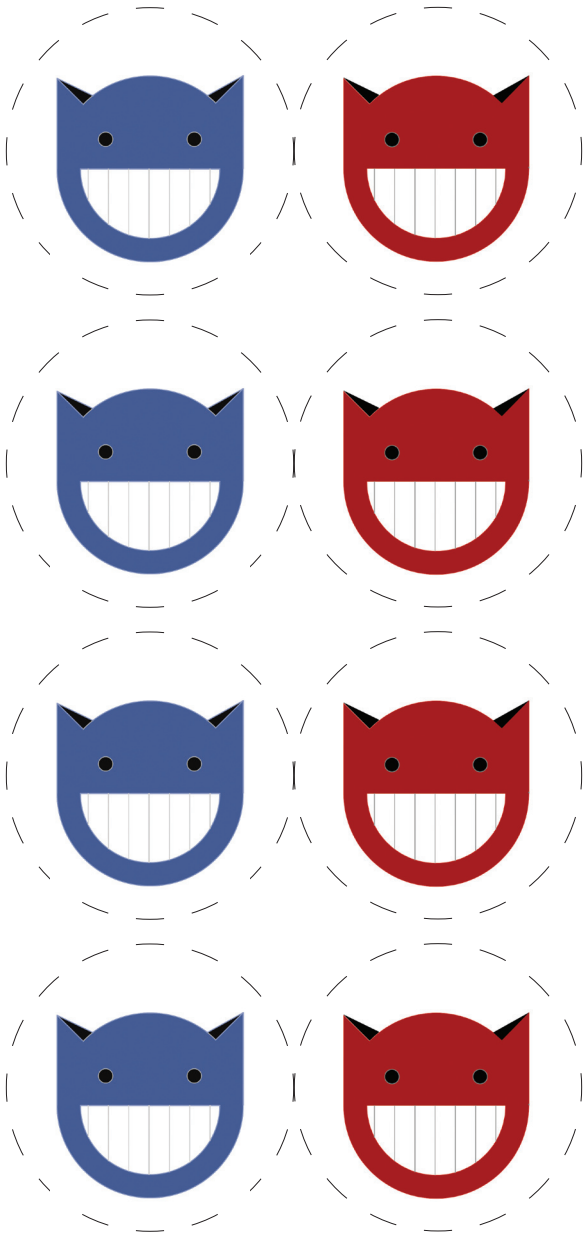
To win, get

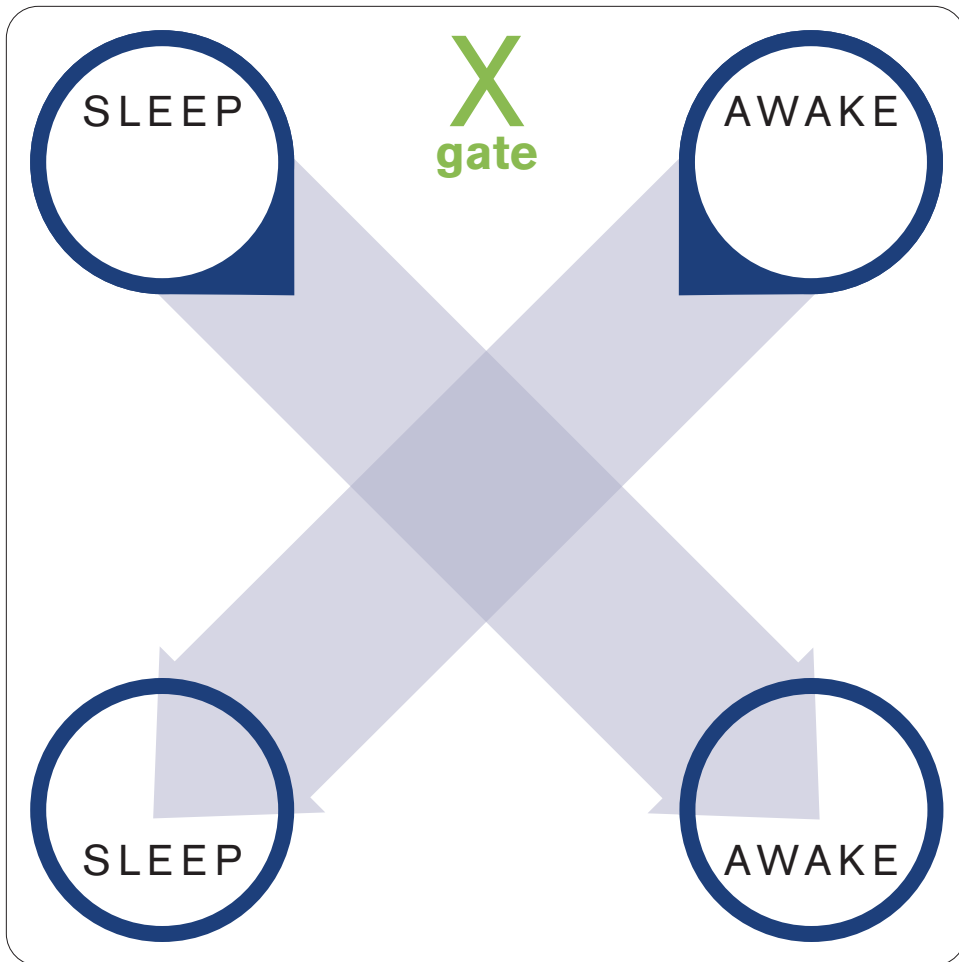
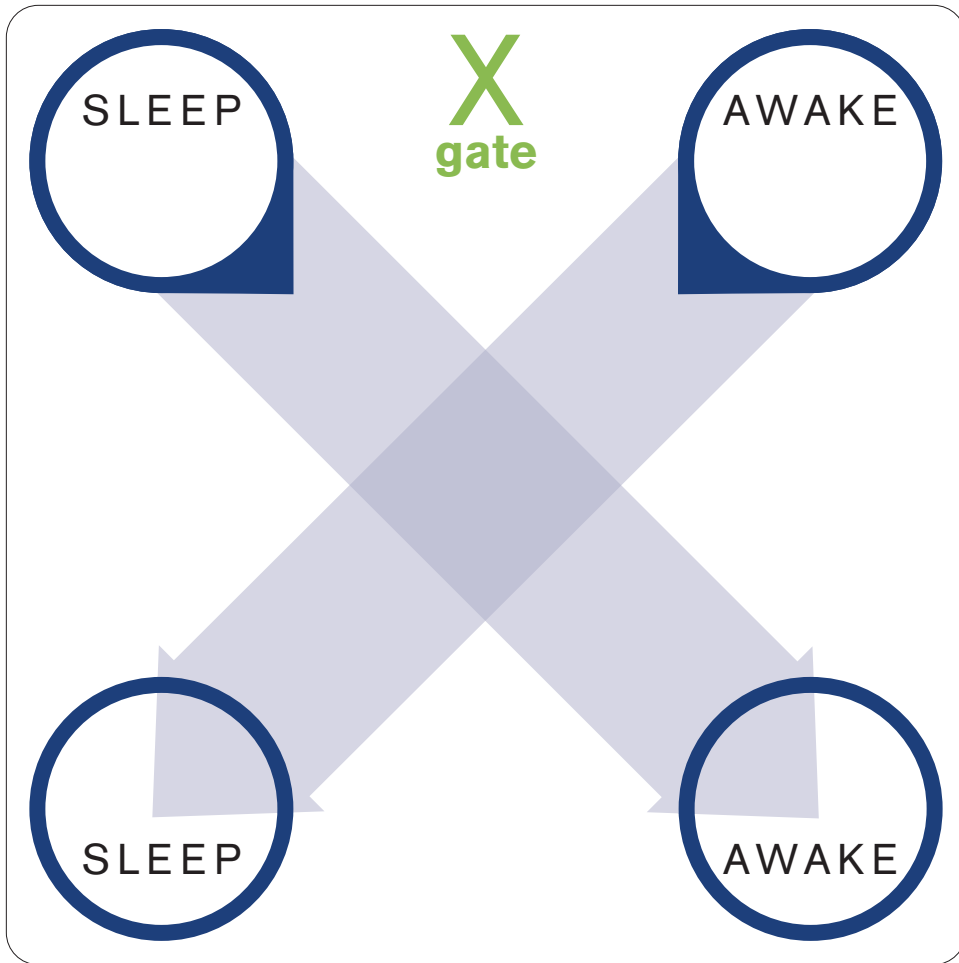


here

AWAKE

Save Schrödinger's Cat



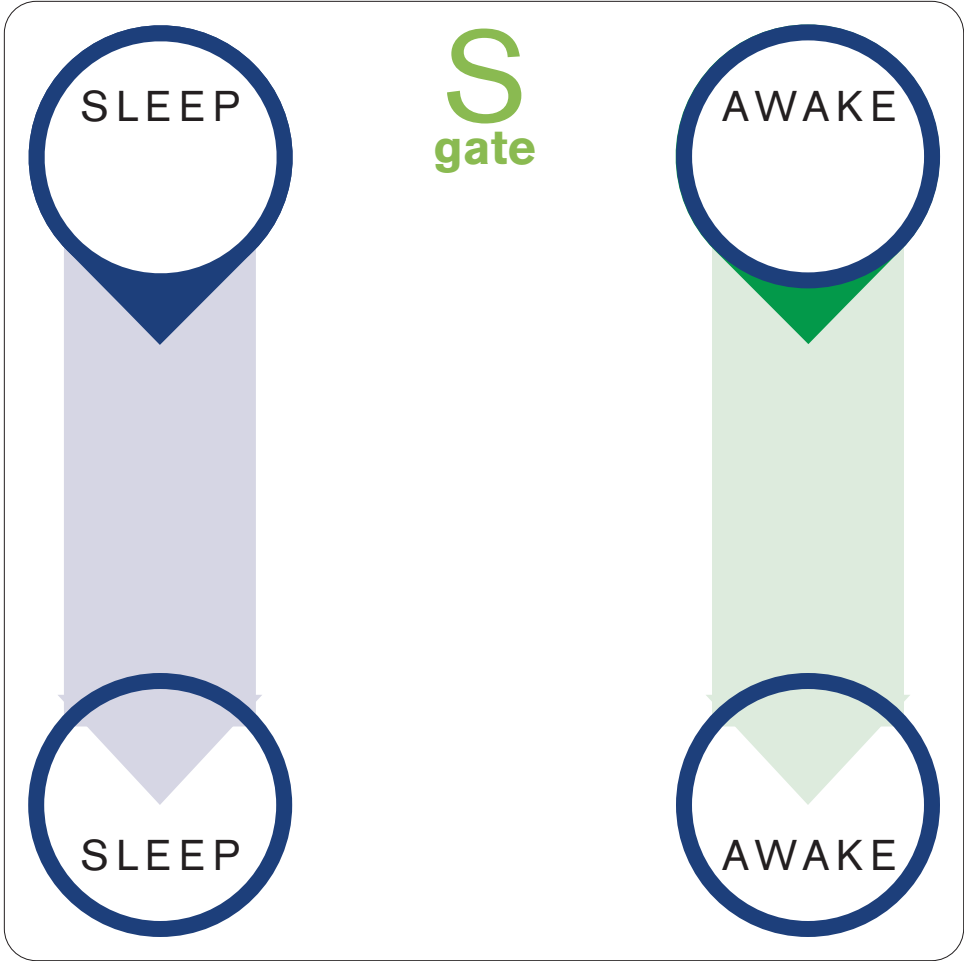
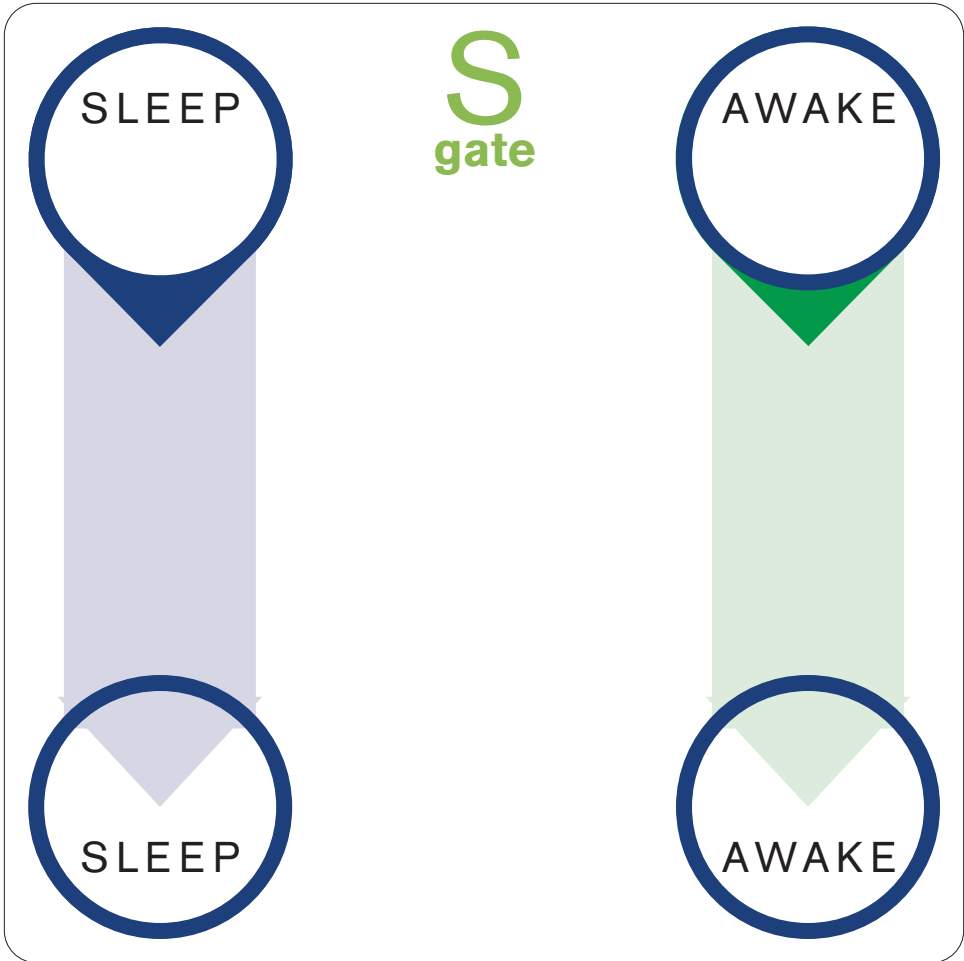




Save Schrödinger's Cat



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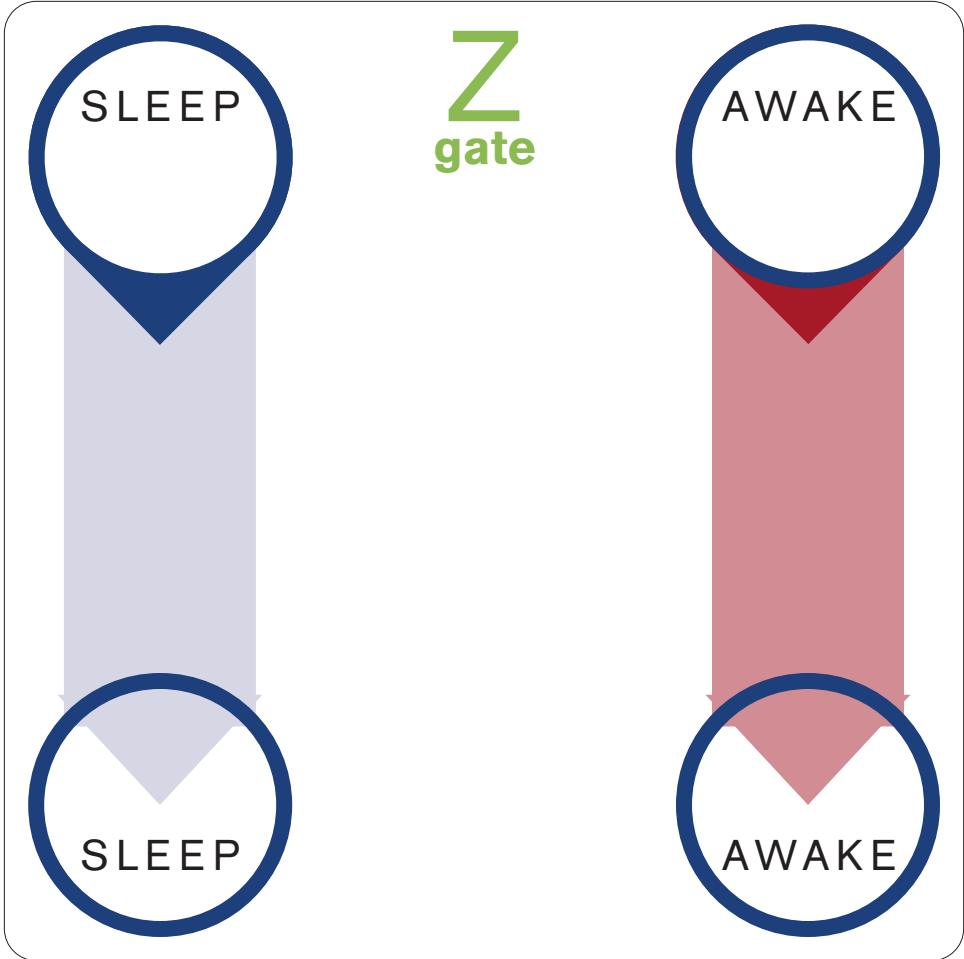
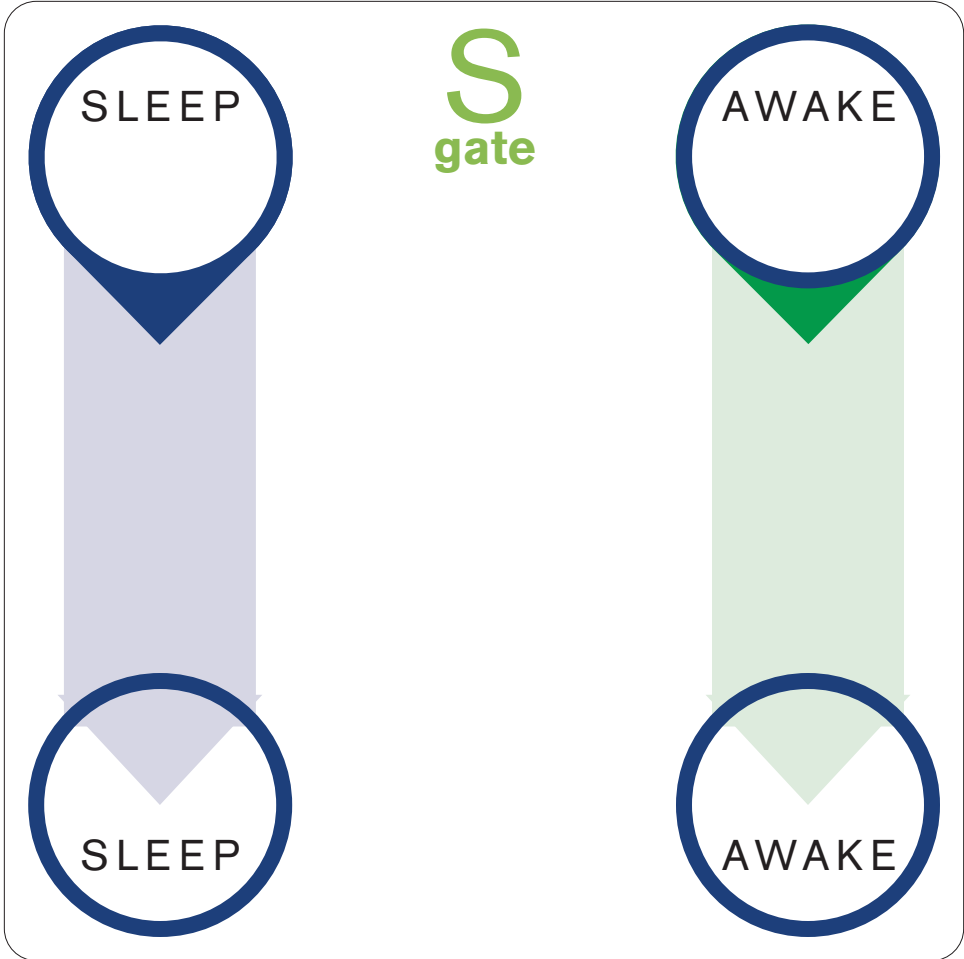




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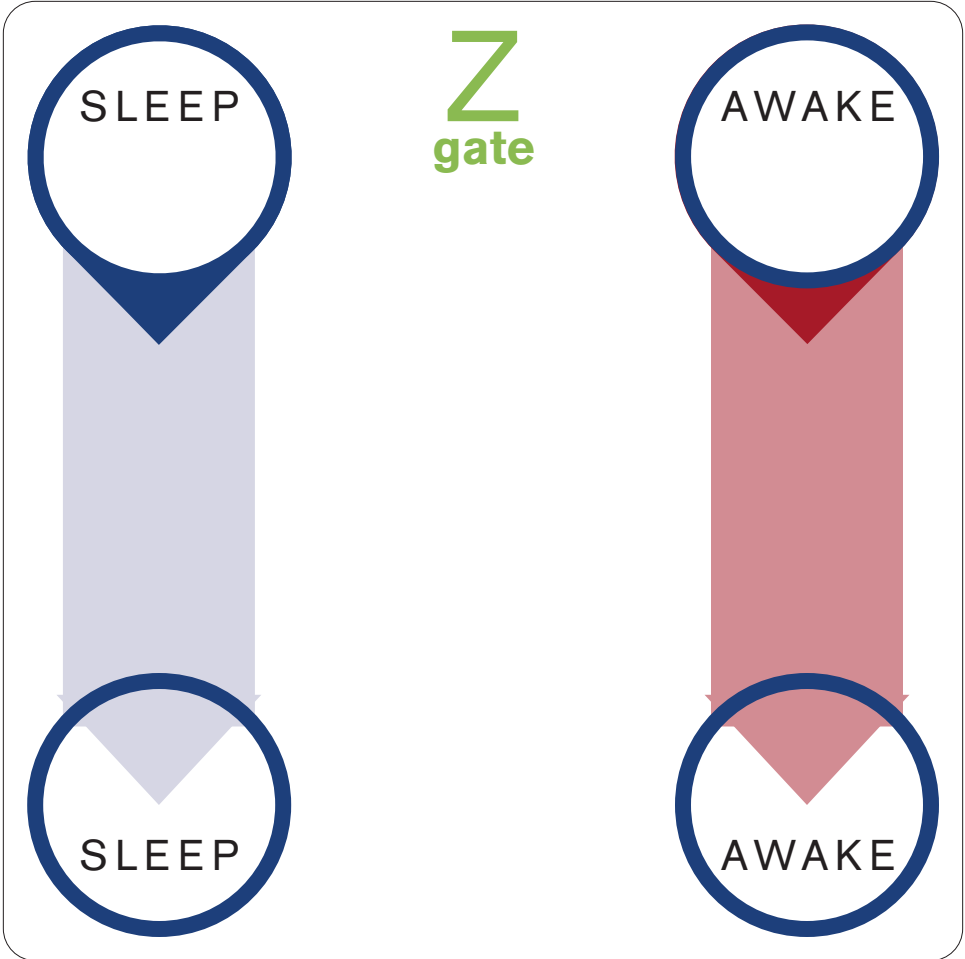
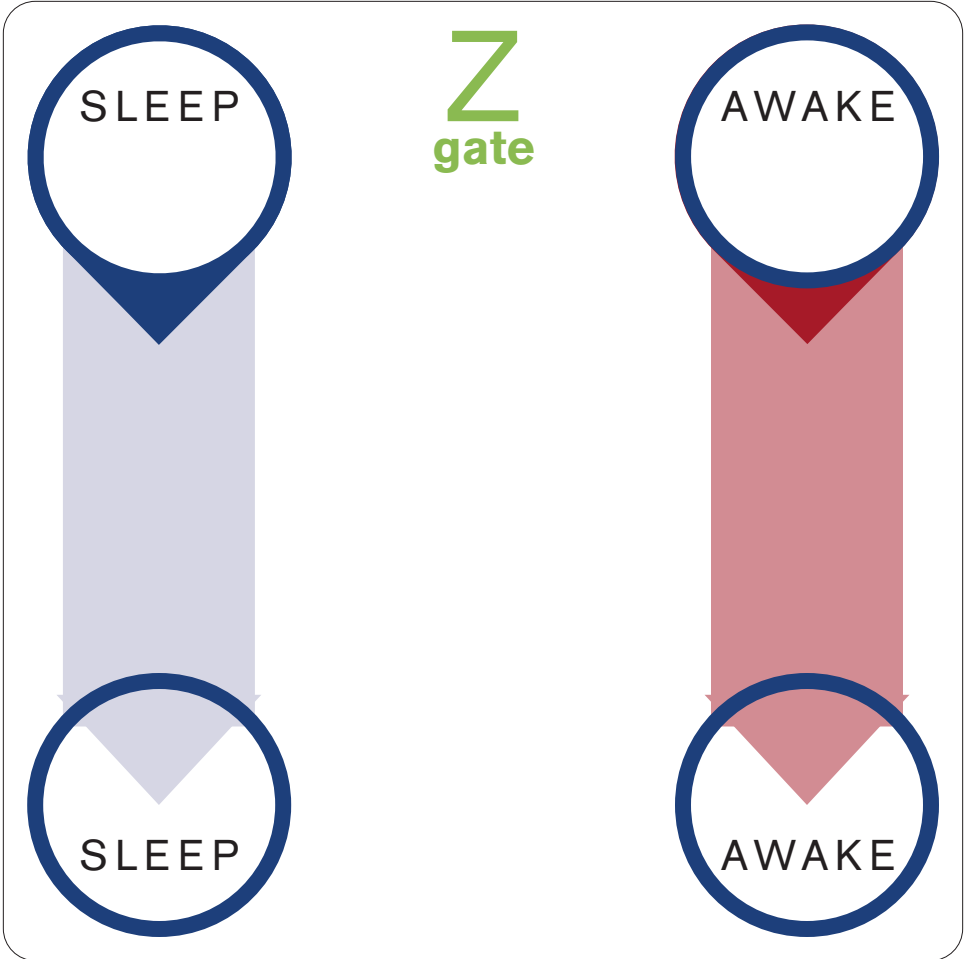




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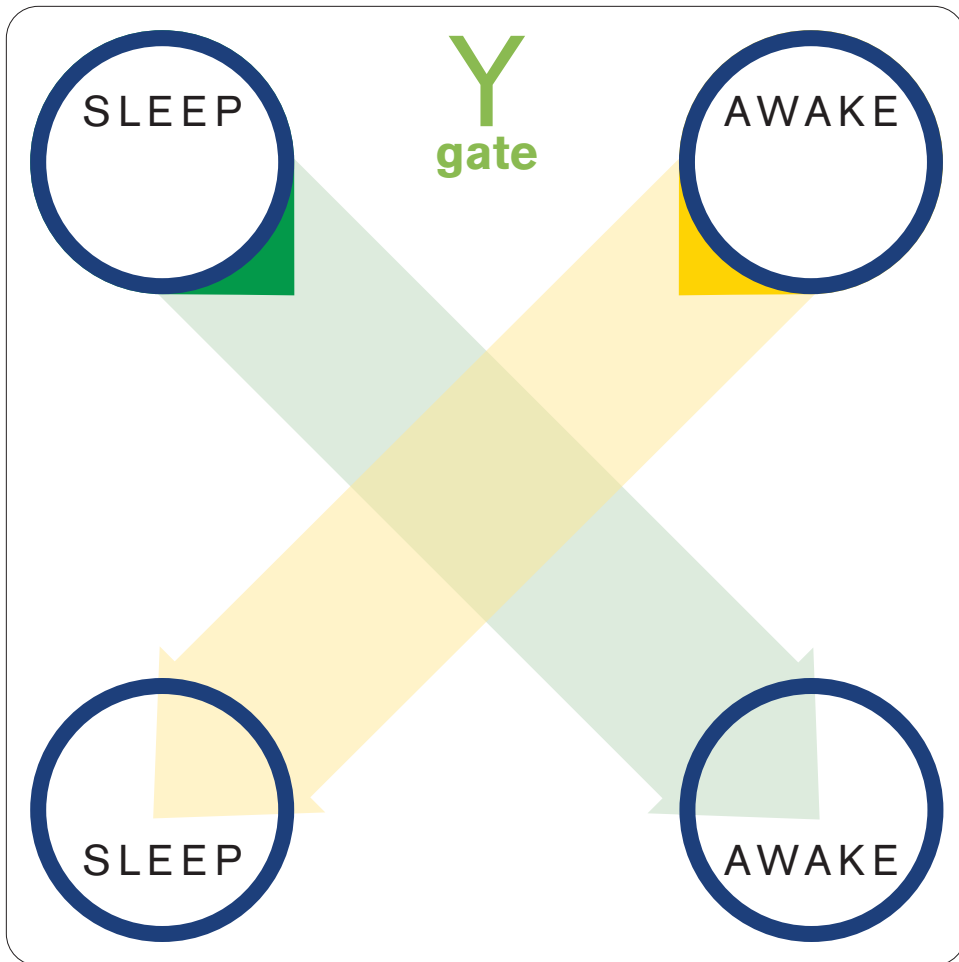
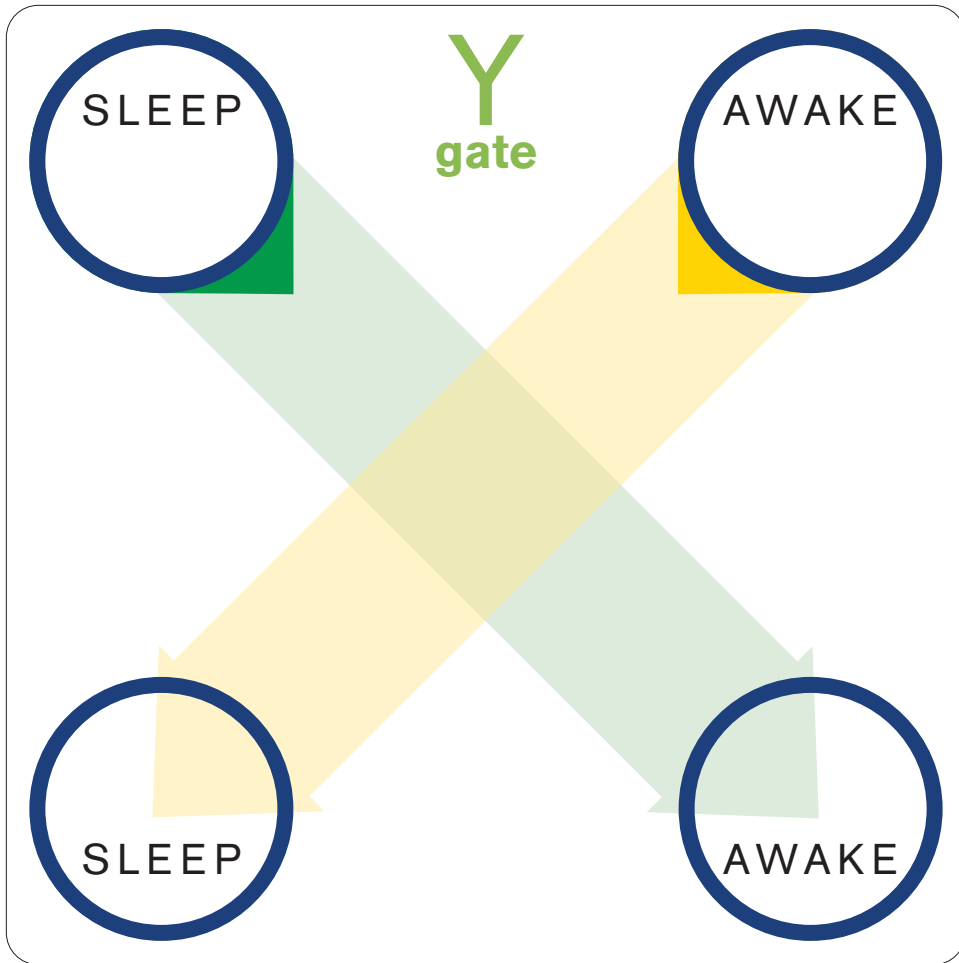




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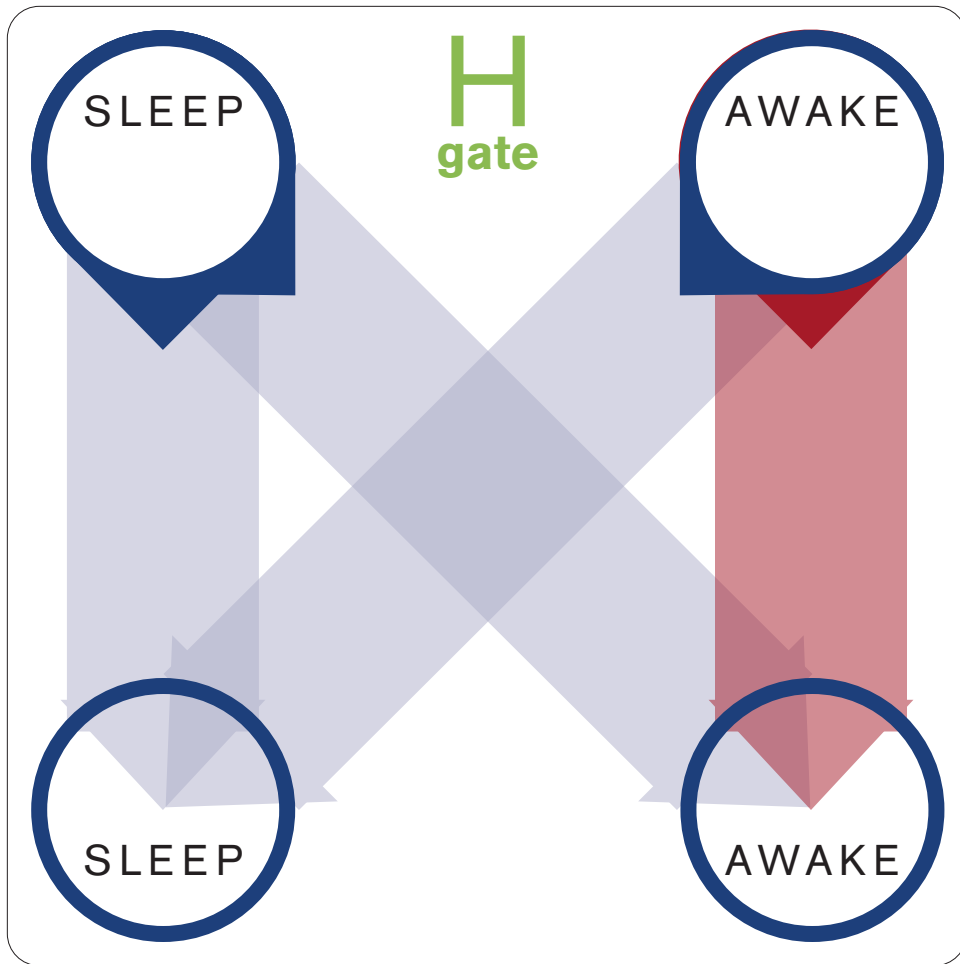
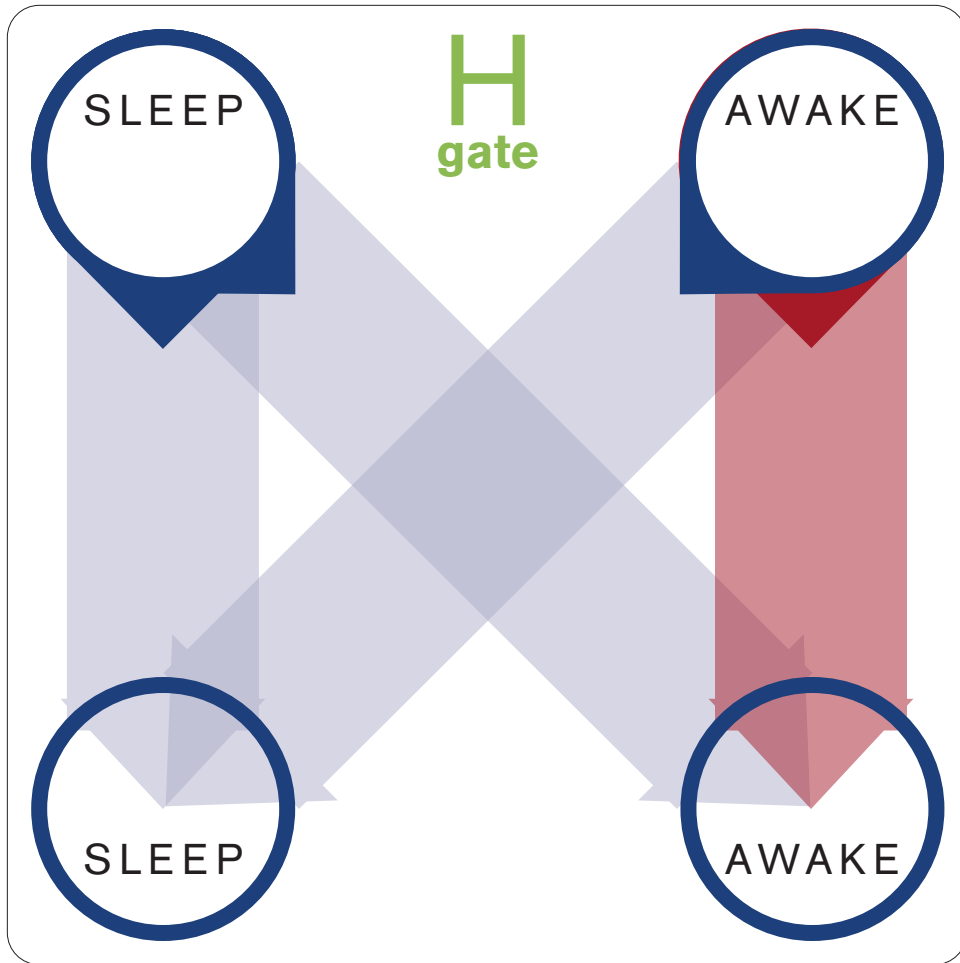




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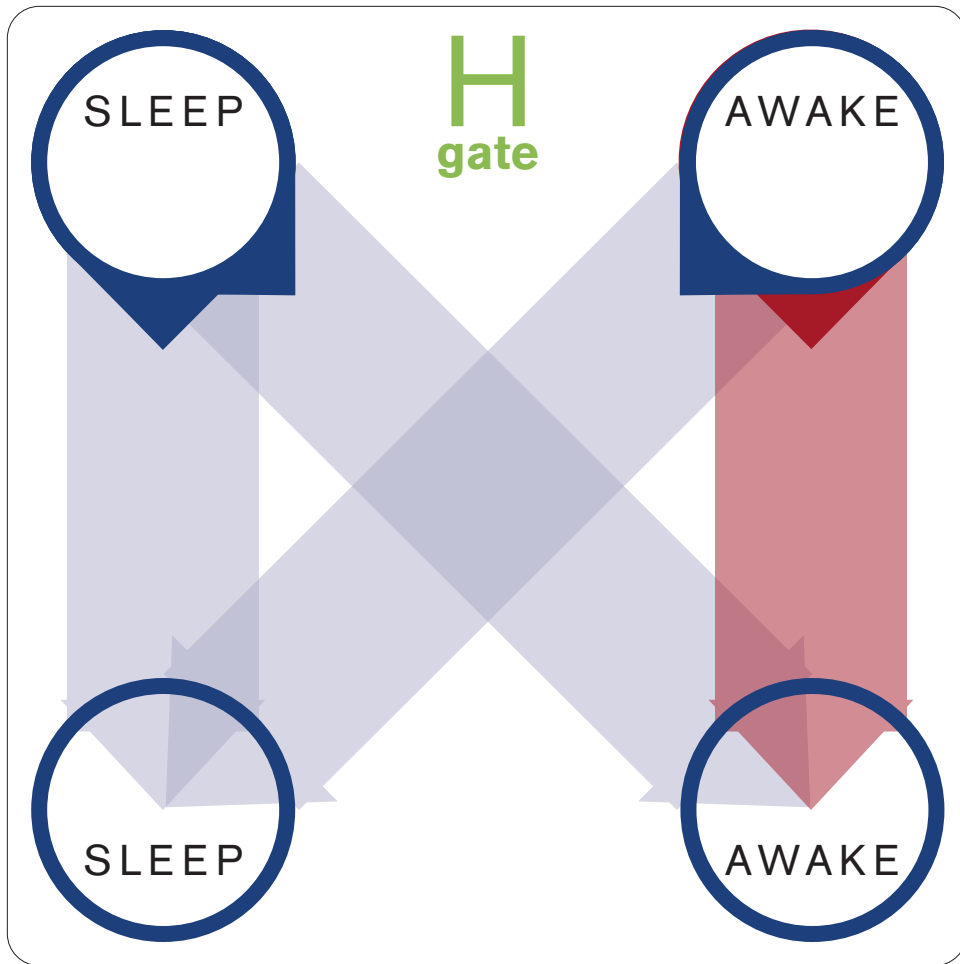
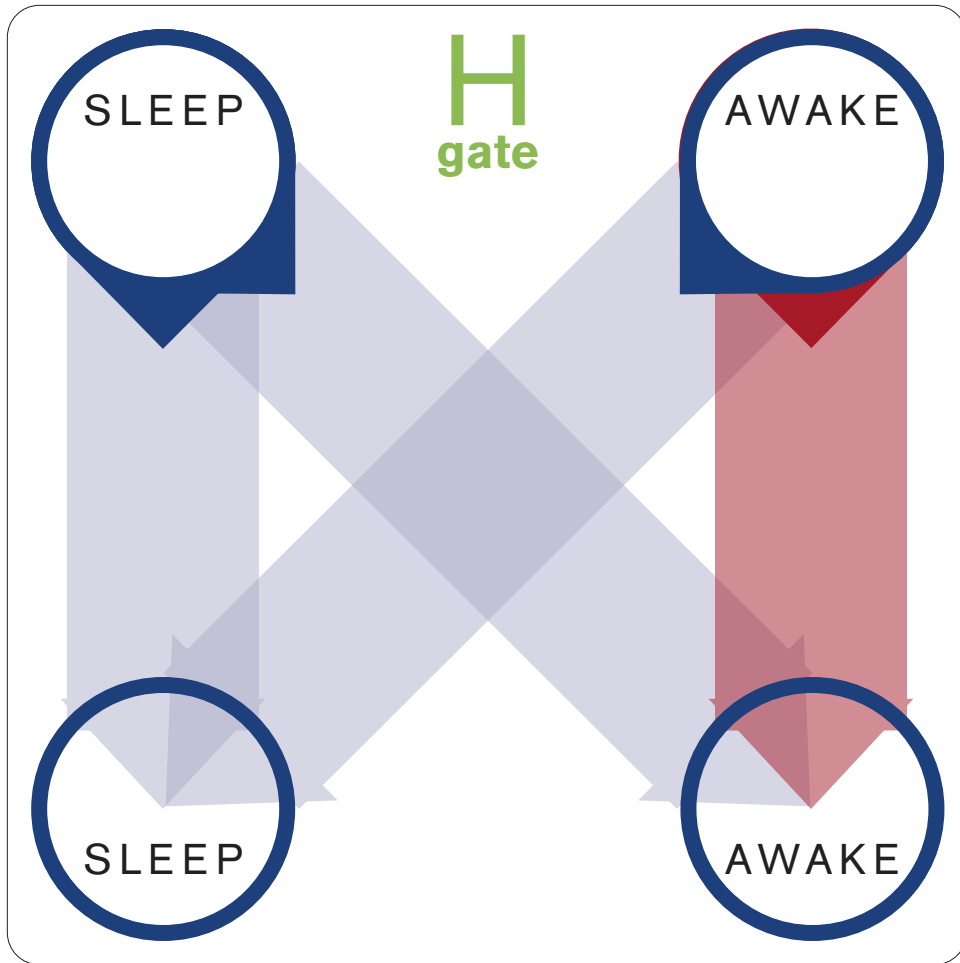




Save Schrödinger's Cat



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Save Schrödinger's Cat



Place one

here



SLEEP



AWAKE



Place one

here



SLEEP



AWAKE



Place one

here



SLEEP



AWAKE



Place one

here



SLEEP



AWAKE



Place one

here



SLEEP



AWAKE



Place one

here



SLEEP



AWAKE



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1ST CHALLENGE:
You are sure that an atom will decay and put Schrödinger's Cat to sleep. Save Schrödinger's Cat from certain sleep!

2ND CHALLENGE:
An atom is about to decay... again! And that's not all, unfortunately you spilled orange juice over the X gate! In this scenario, you cannot use the X gate!
Find a sequence of gates able to flip the certain SLEEP state to the certain AWAKE.

3RD CHALLENGE:
One of the atoms will be in Superposition. After this event, the cat is both asleep and awake in the chamber! Use the right quantum gates to Save Schrödinger's Cat!

4TH CHALLENGE:
An atom will collapse soon and give Schrödinger's Cat a green phase! Save our beloved cat!

5TH CHALLENGE:
You accidentally left your phone to vibrate over the chamber and this caused a disruption! An atom is now in a mixed superposition: a blue and a green token on each state. Save Schrödinger's Cat at all costs!

MAKE YOUR OWN CHALLENGE!
You decide the starting state.

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