CLAIMS

1. A method of switching states of a tabletop game, comprising:

obtaining a tabletop image of a tabletop game which is in a game coin settlement state;

obtaining position information of each of one or more target objects involved in the tabletop image by performing object detection on the tabletop image, wherein the one or more target objects comprise at least one of one or more card objects and one or more game coin objects;

determining, according to the position information of each of the one or more target objects, whether a game area of a game table involves a target object;

determining whether a game coin storage box on the game table is in a closed state; and

switching, in response to determining that the game area involves none target object and the game coin storage box is in the closed state, the game to a game starting state, wherein the game starting state comprises a game coin placement state in which a player is to place a game coin to choose a game party.

2. The method of claim 1, wherein determining, according to the position information of each of the one or more objects, whether the game area of the game table involves a target object, comprises:

obtaining a tabletop hot zone map corresponding to the tabletop image, wherein the tabletop hot zone map comprises a game hot zone which corresponds to an image block in the tabletop image associated with the game area;

determining, according to the position information of each of the one or more target objects, at least one of one or more first hot zones and one or more second hot zones in the tabletop hot zone map, wherein each of the one or more card objects is involved in one of the one or more first hot zones in the tabletop hot zone map and each of the one or more

game coin objects is involved in one of the one or more second hot zones in the tabletop hot zone map;

determining, in response to that the one or more first hot zones cover the game hot zone, that the game area involves a card object;

determining, in response to that the one or more first hot zones do not cover the game hot zone, that the game area involves none card object;

determining, in response to that the one or more second hot zones cover the game hot zone, that the game area involves a game coin object; and

determining, in response to that the one or more second hot zones do not cover the game hot zone, that the game area involves none game coin object.

3. The method of claim 2, further comprising:

storing the obtained position information of each of the one or more target objects in a first message queue;

storing, in a second message queue in a case where the one or more target objects comprise the one or more card objects, a first identifier of each of the one or more first hot zones in association with the card object involved in the first hot zone; and

storing, in the second message queue in a case where the one or more target objects comprise the one or more game coin objects, a second identifier of each of the one or more second hot zones in association with the game coin object involved in the second hot zone.

4. The method of claim 3, further comprising:

obtaining, from the second message queue, each of the card objects together with corresponding first identifier and each of the game coin objects together with corresponding second identifier;

determining, in response to that one of the obtained first identifiers matches an identifier of the game hot zone, that the one or more first hot zones cover the game hot zone; and

determining, in response to that one of the obtained second identifiers matches the identifier of the game hot zone, that the one or more second hot zones cover the game hot zone.

5. The method of any one of claims 2-4, wherein determining, according to the position information of each of the one or more target objects, at least one of the one or more first hot zones and the one or more second hot zones in the tabletop hot zone map, comprises:

determining, according to positional coordinates of a pixel within a bounding box of the target object in the tabletop image, a target pixel having the positional coordinates in the tabletop hot zone map;

determining, in response to the target object being a card object, a hot zone comprising the target pixel as the first hot zone; and

determining, in response to the target object being a game coin object, a hot zone comprising the target pixel as the second hot zone.

6. The method of any one of claims 2-5, wherein

the tabletop hot zone map further comprises a first game coin storage box hot zone which corresponds to an image block in the tabletop image associated with the game coin storage box;

determining whether the game coin storage box on the game table is in the closed state comprises:

determining, in response to that the one or more second hot zones cover the first game coin storage box hot zone, that the game coin storage box is in an opened state; and

determining, in response to that the one or more second hot zones do not cover the first game coin storage box hot zone, that the game coin storage box is in the closed state.

7. The method of any one of claims 2-5, wherein

the game coin storage box comprises a preset game coin storage layer;

the tabletop hot zone map further comprises a second game coin storage box hot zone which corresponds to an image block in the tabletop image associated with the preset game coin storage layer when the game coin storage box is opened;

determining whether the game coin storage box on the game table is in the closed state comprises:

determining, in response to that the one or more second hot zones cover the second game coin storage box hot zone, that the game coin storage box is in an opened state; and

determining, in response to that the one or more second hot zones do not cover the second game coin storage box hot zone, that the game coin storage box is in the closed state.

8. The method of any one of claims 1-7, further comprising:

obtaining a game state identifier that represents a current game stage of the game; and

determining, in response to that the game state identifier matches an identifier of the game coin settlement state, that the game currently is in the game coin settlement state.

9. The method of any one of claims 1-8, wherein

the game area comprises a card placement area and a game coin placement area.

10. An apparatus for switching states of a tabletop game, comprising:

an obtaining module configured to obtain a tabletop image of a tabletop game which is in a game coin settlement state;

an object detecting module configured to obtain position information of each of one or more target objects involved in the tabletop image by performing object detection on the tabletop image, wherein the one or more target objects comprise at least one of one or more card objects and one or more game coin objects;

a determining module configured to determine, according to the position information of each of the one or more target objects, whether a game area of a game table involves a target object, and whether a game coin storage box on the game table is in a closed state; and

a switching module configured to switch the game to a game starting state, in response to determining that the game area involves none target object and the game coin storage box is in the closed state, wherein the game starting state comprises a game coin placement state in which a player is to place a game coin to choose a game party.

11. The apparatus of claim 10, wherein the determining module is configured to:

obtain a tabletop hot zone map corresponding to the tabletop image; wherein the tabletop hot zone map comprises a game hot zone which corresponds to an image block in the tabletop image associated with the game area;

determine, according to the position information of each of the one or more target objects, at least one of one or more first hot zones and one or more second hot zones in the tabletop hot zone map, wherein each of the one or more card objects is involved in one of the one or more first hot zones in the tabletop hot zone map and each of the one or more game coin objects is involved in one of the one or more second hot zones in the tabletop hot zone map;

in response to that the one or more first hot zones cover the game hot zone, determine that the game area involves a card object;

in response to that the one or more first hot zones do not cover the game hot zone, determine that the game area involves none card object;

in response to that the one or more second hot zones cover the game hot zone, determine that the game area involves a game coin object; and

in response to that the one or more second hot zones do not cover the game hot zone, determine that the game area involves none game coin object.

12. The apparatus of claim 11, further comprising:

a storage module configured to store the obtained position information of each of the one or more target objects in a first message queue;

store, in a second message queue in a case where the one or more target objects comprise the one or more card objects, a first identifier of each of the one or more first hot zones in association with the card object involved in the first hot zone; and

store, in the second message queue in a case where the one or more target objects comprise the one or more game coin objects, a second identifier of each of the one or more second hot zones in association with the game coin object involved in the second hot zone.

13. The apparatus of claim 12, further comprising:

a hot zone determining module configured to obtain, from the second message queue, each of the card objects together with corresponding first identifier and each of the game coin objects together with corresponding second identifier;

in response to that one of the obtained first identifiers matches an identifier of the game hot zone, determine that the one or more first hot zones cover the game hot zone; and

in response to that one of the obtained second identifiers matches the identifier of the game hot zone, determine that the one or more second hot zones cover the game hot zone.

14. The apparatus of any one of claims 11-13, the determining module is configured to:

determine, according to positional coordinates of a pixel within a bounding box of the target object in the tabletop image, a target pixel having the positional coordinates in the tabletop hot zone map;

determine, in response to the target object being a card object, a hot zone comprising the target pixel as the first hot zone; and

determine, in response to the target object being a game coin object, a hot zone comprising the target pixel as the second hot zone.

15. The apparatus of any one of claims 11-14, wherein the tabletop hot zone map further comprises a first game coin storage box hot zone which corresponds to an image block in the tabletop image associated with the game coin storage box;

the determining module is configured to:

in response to that the one or more second hot zones cover the first game coin storage box hot zone, determine that the game coin storage box is in an opened state; and

in response to that the one or more second hot zones do not cover the first game coin storage box hot zone, determine that the game coin storage box is in the closed state.

16. The apparatus of any one of claims 11-14, wherein the game coin storage box comprises a preset game coin storage layer;

the tabletop hot zone map further comprises a second game coin storage box hot zone which corresponds to an image block in the tabletop image associated with the preset game coin storage layer when the game coin storage box is opened;

the determining module is configured to:

in response to that the one or more second hot zones cover the second game coin storage box hot zone, determine that the game coin storage box is in an opened state; and

in response to that the one or more second hot zones do not cover the second game coin storage box hot zone, determine that the game coin storage box is in the closed state.

17. The apparatus of any one of claims 10-16, further comprising:

a game state determining module configured to obtain a game state identifier that represents a current game stage of the game; and

in response to that the game state identifier matches an identifier of the game coin settlement state, determine that the game currently is in the game coin settlement state.

18. The apparatus of any one of claims 10-17, wherein the game area comprises a card placement area and a game coin placement area.

19. An electronic device comprising:

a processor; and

a memory for storing processor executable instructions;

wherein the processor, by running the executable instructions, implements the method of switching states of a tabletop game according to any one of claims 1-9.

20. A computer-readable storage medium, wherein the storage medium stores a computer program, and the computer program is used to cause a processor to perform the method for switching a state of a tabletop game according to any one of claims 1-9.