CLAIMS

1. A method for detecting a human body around a game table, comprising:

acquiring three-dimensional scene data of the game table collected by at least one three-dimensional sensor arranged around the game table;

acquiring human body detection information around the game table, wherein the human body detection information comprises detection information of at least one human body;

filtering the human body detection information based on the three-dimensional scene data to obtain a human body detection result around the game table, comprising:

determining a distance between each detected human body in the human body detection information and the game table based on the three-dimensional scene data; and

filtering out human body detection information at a distance exceeding a set threshold value from the game table in the human body detection information to obtain the human body detection result around the game table.

2. The method of claim 1, wherein acquiring the human body detection information around the game table comprises:

acquiring two-dimensional image data of the game table collected by at least one two-dimensional image sensor arranged around the game table; and

detecting the human body around the game table based on the two-dimensional image data to obtain two-dimensional human body detection information around the game table.

3. The method of claim 2, wherein the number of the three-dimensional sensor arranged round the game table is 1, and the three-dimensional scene data comprises depth information;

wherein determining the distance between each detected human body in the human body detection information and the game table based on the three-dimensional scene data comprises:

determining depth information of the game table and each human body in the two-dimensional human body detection information based on the three-dimensional scene data; and

determining the distance between each human body in the human body detection information and the game table based on the depth information.

4. The method of claim 1, wherein the at least one three-dimensional sensor refers to a plurality of three-dimensional sensors, and the plurality of three-dimensional sensors is distributed at a plurality of different orientations around the game table;

wherein the method further comprises:

constructing complete three-dimensional data of the game table based on the three-dimensional scene data of the game table collected by each three-dimensional sensor in the plurality of three-dimensional sensors;

wherein acquiring the human body detection information around the game table comprises:

carrying out human body detection based on the complete three-dimensional data of the game table to obtain three-dimensional human body detection information around the game table.

5. The method of claim 4, wherein the method further comprises:

carrying out game prop detection based on the complete three-dimensional data to obtain three-dimensional detection information of a game prop on the game table; and

determining an operation relationship between the human body and the game prop based on the three-dimensional detection information of the game prop and the three-dimensional human body detection information.

6. The method of claim 5, wherein the method further comprises:

acquiring two-dimensional image data of the game table collected by at least one two-dimensional image sensor arranged around the game table; and

detecting the human body around the game table and the game prop on the game table based on the two-dimensional image data to obtain two-dimensional human body detection information around the game table and two-dimensional detection information of the game prop on the game table.

7. The method of claim 6, wherein determining the operation relationship between the human body and the game prop based on the three-dimensional detection information of the game

prop and the three-dimensional human body detection information comprises:

fusing the two-dimensional human body detection information and the three-dimensional human body detection information to obtain multi-mode human body detection information;

fusing the two-dimensional detection information and the three-dimensional detection information of the game prop to obtain multi-mode detection information of the game prop; and

determining the operation relationship between the human body and the game prop based on the multi-mode human body detection information and the multi-mode detection information of the game prop.

8. The method of claim 6, wherein determining the operation relationship between the human body and the game prop based on the three-dimensional detection information of the game prop and the three-dimensional human body detection information comprises:

determining a first operation relationship between the human body and the game prop in a two-dimensional plane based on the two-dimensional human body detection information and the two-dimensional detection information of the game prop;

determining a second operation relationship between the human body and the game prop in a three-dimensional space based on the three-dimensional human body detection information and the three-dimensional detection information of the game prop; and

fusing the first operation relationship and the second operation relationship to obtain the operation relationship between the human body and the game prop.

9. An electronic device, comprising a first processor and a first memory, wherein the first memory stores a computer program executable on the first processor, wherein when executing the program, the first processor is configured to:

acquire three-dimensional scene data of a game table collected by at least one three-dimensional sensor arranged around the game table;

acquire human body detection information around the game table, wherein the human body detection information comprises detection information of at least one human body;

filter the human body detection information based on the three-dimensional scene data to obtain a human body detection result around the game table;

wherein the processor is configured to:

determine a distance between each detected human body in the human body detection information and the game table based on the three-dimensional scene data; and

filter out human body detection information at a distance exceeding a set threshold value from the game table in the human body detection information to obtain the human body detection result around the game table.

10. The electronic device of claim 9, wherein when acquiring the human body detection information around the game table, the processor is configured to:

acquire two-dimensional image data of the game table collected by at least one two-dimensional image sensor arranged around the game table; and

detect the human body around the game table based on the two-dimensional image data to obtain two-dimensional human body detection information around the game table.

11. The electronic device of claim 10, wherein the number of the three-dimensional sensor arranged round the game table is 1, and the three-dimensional scene data comprises depth information;

wherein when determining the distance between each detected human body in the human body detection information and the game table based on the three-dimensional scene data, the processor is configured to:

determining depth information of the game table and each human body in the two-dimensional human body detection information based on the three-dimensional scene data; and

determining the distance between each human body in the human body detection information and the game table based on the depth information.

12. The electronic device of claim 9, wherein the at least one three-dimensional sensor refers to a plurality of three-dimensional sensors, and the plurality of three-dimensional sensors is distributed at a plurality of different orientations around the game table;

wherein the processor is further configured to:

construct complete three-dimensional data of the game table based on the three-dimensional scene data of the game table collected by each three-dimensional sensor in the plurality of three-dimensional sensors;

wherein when acquiring the human body detection information around the game table, the processor is configured to:

carry out human body detection based on the complete three-dimensional data of the game table to obtain three-dimensional human body detection information around the game

table.

13. The electronic device of claim 12, wherein the processor is further configured to:

carry out game prop detection based on the complete three-dimensional data to obtain three-dimensional detection information of a game prop on the game table; and

determine an operation relationship between the human body and the game prop based on the three-dimensional detection information of the game prop and the three-dimensional human body detection information.

14. The electronic device of claim 13, wherein the processor is further configured to:

acquire two-dimensional image data of the game table collected by at least one two-dimensional image sensor arranged around the game table; and

detect the human body around the game table and the game prop on the game table based on the two-dimensional image data to obtain two-dimensional human body detection information around the game table and two-dimensional detection information of the game prop on the game table.

15. The electronic device of claim 14, wherein when determining the operation relationship between the human body and the game prop based on the three-dimensional detection information of the game prop and the three-dimensional human body detection information, the processor is configured to:

fuse the two-dimensional human body detection information and the three-

dimensional human body detection information to obtain multi-mode human body detection information;

fuse the two-dimensional detection information and the three-dimensional detection information of the game prop to obtain multi-mode detection information of the game prop; and

determine the operation relationship between the human body and the game prop based on the multi-mode human body detection information and the multi-mode detection information of the game prop.

16. The electronic device of claim 14, wherein when determining the operation relationship between the human body and the game prop based on the three-dimensional detection information of the game prop and the three-dimensional human body detection information, the processor is configured to:

determine a first operation relationship between the human body and the game prop in a two-dimensional plane based on the two-dimensional human body detection information and the two-dimensional detection information of the game prop;

determine a second operation relationship between the human body and the game prop in a three-dimensional space based on the three-dimensional human body detection information and the three-dimensional detection information of the game prop; and

fuse the first operation relationship and the second operation relationship to obtain the operation relationship between the human body and the game prop.

17. A computer-readable storage medium, storing at least one program; wherein the at least

one program is executed by at least one processor to:

acquire three-dimensional scene data of a game table collected by at least one three-dimensional sensor arranged around the game table;

acquire human body detection information around the game table, wherein the human body detection information comprises detection information of at least one human body;

filter the human body detection information based on the three-dimensional scene data to obtain a human body detection result around the game table;

wherein the at least one program is executed by the at least one processor to:

determine a distance between each detected human body in the human body detection information and the game table based on the three-dimensional scene data; and

filter out human body detection information at a distance exceeding a set threshold value from the game table in the human body detection information to obtain the human body detection result around the game table.

18. A computer program, comprising computer instructions executable by an electronic device, wherein when executed by a processor in the electronic device, the computer instructions are configured to:

acquire three-dimensional scene data of a game table collected by at least one three-dimensional sensor arranged around the game table;

acquire human body detection information around the game table, wherein the human body detection information comprises detection information of at least one human body;

filter the human body detection information based on the three-dimensional scene data to obtain a human body detection result around the game table;

wherein the computer instructions are configured to:

determine a distance between each detected human body in the human body detection information and the game table based on the three-dimensional scene data; and

filter out human body detection information at a distance exceeding a set threshold value from the game table in the human body detection information to obtain the human body detection result around the game table.