What is claimed is:

1. A clamping vehicle lane control method, wherein a clamping vehicle lane has a vehicle carrying plane used for carrying an electric vehicle and capable of raising and lowering;

the clamping vehicle lane control method comprises:

controlling the vehicle carrying plane to be raised and lowered between any two heights among an initial height, a battery removal height and a battery installation height, wherein the battery removal height is a height that matches a battery pack removal process of the electric vehicle, and the battery installation height is a height that matches a battery pack installation process of the electric vehicle;

the clamping vehicle lane control method further comprising:

controlling the vehicle carrying plane to be raised and lowered between a first operation height and any one of the initial height, the battery removal height and the battery installation height, the first operation height being another height that matches the battery pack removal process of the electric vehicle and different from the battery removal height.

2. The clamping vehicle lane control method according to claim 1, wherein a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane; the battery removal height is set to be: higher than the initial height, and when the vehicle carrying plane is positioned at the battery removal height, a relative height between the vehicle carrying plane and the battery swapping device walking plane is higher than a height of the battery swapping device without loading a battery pack;

and/or, a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane; the battery installation height is set to be: higher than the initial height, and when the vehicle carrying plane is positioned at the battery installation height, a relative height between the vehicle carrying plane and the battery swapping device walking plane is higher than a height of the battery swapping device with a loaded battery pack.

3. The clamping vehicle lane control method according to any one of claims 1 and 2, wherein the battery removal height is less than or equal to the battery installation height.

4. The clamping vehicle lane control method according to any one of claims 1 to 3, wherein controlling the vehicle carrying plane to be raised and lowered between any two heights among an initial height, a battery removal height and a battery installation height comprises:

controlling the vehicle carrying plane to be kept at the initial height before the electric vehicle is parked at the vehicle carrying plane;

and/or, controlling the vehicle carrying plane to reach the battery removal height after the electric vehicle is parked at the vehicle carrying plane;

and/or, controlling the vehicle carrying plane to reach the battery installation height after the battery pack is disassembled from the electric vehicle;

and/or, controlling the vehicle carrying plane to return back to the initial height after the battery pack is assembled on the electric vehicle.

5. The clamping vehicle lane control method according to claim 1, wherein the battery swapping device walking plane for walking of the battery swapping device used for disassembling and assembling the battery pack is arranged on the clamping vehicle lane; the first operation height is set to be: lower than the battery removal height, and when the vehicle carrying plane is positioned at the first operation height, the relative height between the vehicle carrying plane and the battery swapping device walking plane meets a height condition of the battery swapping device for disassembling the battery pack.

6. The clamping vehicle lane control method according to any one of claims 1 to 5, further comprising:

controlling the vehicle carrying plane to be raised and lowered between a second operation height and any one of the initial height, the battery removal height and the battery installation height, the second operation height being another height that matches the battery pack installation process of the electric vehicle and different from the battery installation height.

7. The clamping vehicle lane control method according to claim 6, wherein the battery swapping device walking plane for walking of the battery swapping device used for disassembling and assembling the battery pack is arranged on the clamping vehicle lane; the second operation height is set to be: lower than the battery installation height, and when the vehicle carrying plane is positioned at the second operation height, the relative height between the vehicle carrying plane and the battery swapping device

walking plane meets a height condition of the battery swapping device for assembling the battery pack.

8. The clamping vehicle lane control method according to claim 1, wherein controlling the vehicle carrying plane to be raised and lowered between a first operation height and any one of the initial height, the battery removal height and the battery installation height comprises:

controlling the vehicle carrying plane to reach the first operation height in the battery pack removal process.

9. The clamping vehicle lane control method according to claim 6, wherein controlling the vehicle carrying plane to be raised and lowered between a second operation height and any one of the initial height, the battery removal height and the battery installation height comprises:

controlling the vehicle carrying plane to reach the second operation height in the battery pack installation process.

10. The clamping vehicle lane control method according to any one of claims 1 and 6, wherein height sensors are arranged on the vehicle carrying plane and/or a plane where the clamping vehicle lane is positioned, respectively, the height sensors being used for detecting a relative height between the vehicle carrying plane and a reference plane; the clamping vehicle lane control method further comprises:

detecting whether the vehicle carrying plane reaches the initial height, the battery removal height, the battery installation height, the first operation height or the second operation height through the height sensors, and controlling a lifting mechanism used for controlling a height of the vehicle carrying plane according to a detection result.

11. The clamping vehicle lane control method according to at least one of claims 1 to 10, wherein the battery swapping device walking plane for walking of the battery swapping device used for disassembling and assembling the battery pack is arranged on the clamping vehicle lane, and the vehicle carrying plane, when positioned at the initial height, is positioned on the same plane as the battery swapping device walking plane.

12. A clamping vehicle lane control system, wherein a clamping vehicle lane has a vehicle carrying plane used for carrying an electric vehicle and capable of raising and lowering;

the clamping vehicle lane control system comprises:

a height control module, used for controlling the vehicle carrying plane to be raised and lowered between any two heights among an initial height, a battery removal height and a battery installation height, the battery removal height being a height that matches a battery pack removal process of the electric vehicle, and the battery installation height being a height that matches a battery pack installation process of the electric vehicle;

wherein the height control module is further used for controlling the vehicle carrying plane to be raised and lowered between a first operation height and any one of the initial height, the battery removal height and the battery installation height, the first operation height being another height that matches the battery pack removal process of the electric vehicle and different from the battery removal height.

13. The clamping vehicle lane control system according to claim 12, wherein a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane; the battery removal height is set to be: higher than the initial height, and when the vehicle carrying plane is positioned at the battery removal height, a relative height between the vehicle carrying plane and the battery swapping device walking plane is higher than a height of the battery swapping device without loading a battery pack;

and/or, a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane; the battery installation height is set to be: higher than the initial height, and when the vehicle carrying plane is positioned at the battery installation height, a relative height between the vehicle carrying plane and the battery swapping device walking plane is higher than a height of the battery swapping device with a loaded battery pack;

and/or, the battery removal height is less than or equal to the battery installation height;

and/or, the height control module is specifically used for controlling the vehicle carrying plane to be kept at the initial height before the electric vehicle is parked at the vehicle carrying plane;

and/or, the height control module is specifically used for controlling the vehicle carrying plane to reach the battery removal height after the electric vehicle is parked at the vehicle carrying plane;

and/or, the height control module is specifically used for controlling the vehicle

carrying plane to reach the battery installation height after the battery pack is disassembled from the electric vehicle;

and/or, the height control module is specifically used for controlling the vehicle carrying plane to return back to the initial height after the battery pack is assembled on the electric vehicle;

and/or, height sensors are arranged on the vehicle carrying plane and/or a plane where the clamping vehicle lane is positioned, respectively, the height sensors being used for detecting a relative height between the vehicle carrying plane and a reference plane; the clamping vehicle lane control system further comprises: a height detection module, used for detecting whether the vehicle carrying plane reaches the initial height, the battery removal height, the battery installation height, a first operation height or a second operation height through the height sensors, and controlling a lifting mechanism used for controlling the height of the vehicle carrying plane according to a detection result;

and/or, a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane, and the vehicle carrying plane, when positioned at the initial height, is positioned on the same plane as the battery swapping device walking plane.

14. The clamping vehicle lane control system according to claim 12, wherein a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane; the first operation height is set to be: lower than the battery removal height, and when the vehicle carrying plane is positioned at the first operation height, a relative height between the vehicle carrying plane and the battery swapping device walking plane meets a height condition of the battery swapping device for disassembling the battery pack;

and/or, the height control module is specifically used for controlling the vehicle carrying plane to reach the first operation height in the battery pack removal process.

15. The clamping vehicle lane control system according to claim 12, wherein the height control module is further used for controlling the vehicle carrying plane to be raised and lowered between a second operation height and any one of the initial height, the battery removal height and the battery installation height, the second operation height being another height that matches the battery pack removal process of the electric

vehicle and different from the battery removal height.

16. The clamping vehicle lane control system according to claim 15, wherein a battery swapping device walking plane for walking of a battery swapping device used for disassembling and assembling a battery pack is arranged on the clamping vehicle lane; the second operation height is set to be: lower than the battery installation height, and when the vehicle carrying plane is positioned at the second operation height, a relative height between the vehicle carrying plane and the battery swapping device walking plane meets a height condition of the battery swapping device for assembling the battery pack;

and/or, the height control module is specifically used for controlling the vehicle carrying plane to reach the second operation height in the battery pack installation process.

17. An electronic device, comprising a memory, a processor and a computer program stored on the memory and executable on the processor, the processor, when executing the program, implementing the method according to any one of claims 1 to 11.

18. A computer-readable storage medium having a computer program stored thereon, the program, when executed by a processor, implementing the steps of the method according to any one of claims 1 to 11.