CLAIMS

1. A method for controlling a self-service payment, the method comprising:

detecting, by using a merchandise detection unit, whether a merchandise to be paid exists on a lift table (1101);

controlling a driving mechanism (1201) to drive the lift table (1101) to move from a first height to a second height when it is detected that the merchandise to be paid exists on the lift table (1101) and does not change in a second threshold time, wherein the first height is higher than the second height;

determining that a removable cover plate (120) disposed on a payment box (110) is in a second state forming a closed space in the payment box (110), the closed space forms electromagnetic shielding space (S910);

controlling a radio frequency identification (RFID) reader (1401) included in a RFID reading unit (140) to read an RFID tag of a merchandise to be paid by using a RFID antenna (1402) included in the RFID reading unit and providing payment information based on a reading result (S920);

obtaining payment characteristics information corresponding to the payment information of a user (S930);

determining that the removable cover plate (120) is in a first state forming an open space in the payment box (110) (S940); and

controlling the driving mechanism (1201) to drive the lift table (1101) to move from the second height to the first height.

2. The method according to claim 1, wherein determining that the removable cover plate (120) is in the second state comprises:

receiving an operation instruction entered by the user by using an input unit (150); and

controlling the removable cover plate (120) to move to the second state based on the operation instruction.

3. The method according to claim 1, further comprising:

before determining that the removable cover plate (120) is in the second state, detecting, by using a merchandise detection unit, whether a merchandise to.be paid exists in the payment box (110); and

determining that the removable cover plate (120) is in the second state comprises:

controlling the removable cover plate (120) to move to the second state when it is detected that the merchandise to be paid exists in the payment box (110) and does not change in a first threshold time.

4. The method according to claim 3, wherein detecting that the merchandise to be paid exists in the payment box (110) and does not change in a first threshold time comprises:

detecting, by using an infrared detection frame (1601), that the merchandise to be paid is moved into the payment box (110) and no merchandise is moved into or moved out of the payment box (110) before the first threshold time.

5. The method according to claim 3, wherein detecting that the merchandise to be paid exists in the payment box (110) and does not change in a first threshold time comprises:

detecting, by using a pressure sensor, that the merchandise to be paid exists in the payment box (110) and a pressure change detected in the first threshold time is less than a pressure change threshold.

6. The method according to claim 1, further comprising:

receiving an operation instruction entered by the user by using an input unit (150); and

controlling the driving mechanism (1201) to drive the lift table (1101) to move from the first height to the second height based on the operation instruction.

7. The method according to claim 1, wherein detecting that the merchandise to be paid exists on the lift table (1101) and does not change in a second threshold time comprises:

detecting, by using an infrared detection frame (1601), that the merchandise to be paid is moved into the payment box (110) and no merchandise is moved into or moved out of the payment box (110) in the second threshold time.

8. The method according to claim 1, wherein detecting that the merchandise to be paid exists on the lift table (1101) and does not change in the second threshold time comprises:

detecting, by using a pressure sensor, that the merchandise to be paid exists on the lift table (1101) and a pressure change detected in the second threshold time is less than a pressure change threshold.

9. The method according to claim 1, further comprising:
controlling a camera (170) to capture the identification information of the user.

10. The method according to claim 9, wherein the identification information comprises face information.

11. The method according to claim 1, further comprising providing payment information based on a reading result by controlling a display (180) to display the payment information.

12. A device for self-service payment, the device comprising a plurality of modules configured to perform the method of any one of claims 1 to 11.