WHAT IS CLAIMED IS:

Claim 1. An integrated coupling module comprising:

an opening/closing module including a cap gripping unit gripping a cap of a container; and

a coupler fixing module fixing a coupler discharging a liquid in the container to an outside, wherein the coupler is lowered from over the cap gripping unit to be coupled to the container,

wherein the cap gripping unit includes a space portion formed in an axial direction, and the coupler is lowered under the cap gripping unit through the space portion.

Claim 2. The integrated coupling module according to claim 1, wherein the cap gripping unit includes a support portion in which a first through-hole is formed and a plurality of grippers disposed to surround the first through-hole to form the space portion.

Claim 3. An integrated coupling module comprising:

an opening/closing module including a cap gripping unit gripping a cap of a container; and

a coupler fixing module fixing a coupler discharging a liquid in the container to an outside, wherein the

coupler is lowered from over the cap gripping unit to be coupled to the container,

wherein the opening/closing module includes a second rotating unit rotating the cap gripping unit and a first housing disposed over the cap gripping unit and

the coupler fixing module is inserted into the first housing.

Claim 4. The integrated coupling module according to claim3 comprising a position adjusting module disposed between the cap gripping unit and the first housing, wherein the position adjusting module includes a first position adjusting module moving the position of the cap gripping unit in a first direction and a second position adjusting module moving the position of the cap gripping unit in a second direction intersecting the first direction.

Claim 5. The integrated coupling module according to claim 3, wherein the coupler fixing module includes a first rotating unit rotating the coupler or a key code of the coupler and a driving module moving the coupler up and down, wherein the coupler is lowered under the cap gripping unit by the driving module.

Claim 6. The integrated coupling module according to claim 1 comprising a lifting/lowering module moving the opening/closing module and the coupler fixing module up and down together, wherein the coupler is lifted and lowered together with the cap gripping unit by the lifting/lowering module and is lowered under the cap gripping unit by a driving module of the coupler fixing module.

Claim 7. An integrated coupling module comprising:

an opening/closing module including a cap gripping unit gripping a cap of a container;

a coupler fixing module fixing a coupler discharging a liquid in the container to an outside, wherein the coupler is lowered from over the cap gripping unit to be coupled to the container and an angle-adjusting module connected to the opening/closing module to adjust the angle of the opening/closing module, wherein the angle-adjusting module includes a first adjusting unit moving the opening/closing module and the coupler fixing module together in a first direction and a second adjusting unit moving the opening/closing module and the coupler fixing module together in a second direction intersecting the first direction wherein the coupler fixing module may be partially inserted into a first housing of the

opening/closing module.

Claim 8. The integrated coupling module according to claim 1 comprising an angle-adjusting module connected to the opening/closing module to adjust the angle of the opening/closing module, wherein the angle-adjusting module includes an angle-adjusting element simultaneously adjusting tilt angle of the opening/closing module and the coupler fixing module.

Claim 9. The integrated coupling module according to claim 1 comprising a sensing module sensing a position and a tilt of the cap, wherein the sensing module includes a first sensing unit sensing the position of the cap and a second sensing unit sensing the tilt of the cap.

Claim 10. A coupling method using the integrated coupling module of any one of claims 1 to 9, comprising:

separating a cap from a container by rotating a cap gripping unit of an opening/closing module;

lowering a coupler disposed inside the opening/closing module to expose the same under the cap gripping unit;

discharging a liquid stored in the container by

inserting the coupler into an outlet of the container;

lifting the coupler over the cap gripping unit; and

fastening the cap to the container by the cap gripping unit.

Claim 11. The coupling method according to claim 10, wherein the opening/closing module moves to a holder disposed adjacent to a container to place the separated cap on the holder in the step of separating the cap, and

the opening/closing module moves to the holder and grips the cap placed on the holder again to fasten the cap to the container in the step of fastening the cap to the container.