room, a kitchen, and the like. For example, detector 86 includes an infrared sensor, an illuminance sensor, a camera, a vibration sensor, and the like. Controller 71 of control unit 70 detects a human behavior based on detection signals from the sensors mentioned above.

As shown in (a) to (d) of FIG. 10, first, a time period from time t1 to time t2 indicates a period during which residents A and B and the pet do not stay in the cleaning target area and lighting equipment in the house is switched off.

In this case, an infrared sensor shown in (i) of FIG. 10 does not detect heat from the lighting equipment.

An illuminance sensor shown in (h) of FIG. 10 does not detect a switch-on (ON) state of the lighting equipment, because the lighting equipment has low illuminance. A camera shown in (j) of FIG. 10 does not detect an object recognized as a human in the cleaning target area, and thus controller 71 does not detect a human. A vibration sensor shown in (k) of FIG. 10 does not detect vibrations in the cleaning target area.

Next, a time period from time t2 to time t3, which is shown in FIG. 10, indicates a period during which resident A stays in the cleaning target area and resident B and the pet do not stay in the cleaning target area.

In this case, as shown in (d) and (e) of FIG. 10, resident A switches on the lighting equipment in the room and uses cooking utensils in a kitchen. The infrared sensor shown in (i) of FIG. 10 thus detects a human, and controller 71 detects a high behavior level of the human staying in the area. In this case, the infrared sensor also detects heat from the lighting equipment. However, controller 71 does not recognize the lighting equipment as a human, because a position and a thermal distribution of the lighting equipment are not displaced and moved.

The illuminance sensor shown in (h) of FIG. 10 detects the lighting