CLAIMS

[1] A work robot comprising a holding unit for holding a known work device, relatively moving means for relatively moving a workpiece and the holding unit, an information processing unit, a storage unit, and a variable storage unit, the work robot performing intended work by relatively moving the holding unit and the workpiece in accordance with a program instruction,

wherein when execution of the intended work is in progress, the program successively stores working state information in the variable storage unit, and when the program is forced to end in the middle of the intended work and then the intended work is to be resumed, the program resumes the work in accordance with the working state information stored in the variable storage unit.

[2] The work robot according to claim 1, wherein the variable storage unit includes a power source independent of a power source for supplying electric power to the work robot.

[3] The work robot according to claim 1, wherein the variable storage unit is a rewritable nonvolatile memory.

[4] The work robot according to any one of claims 1, 2 and 3, wherein the variable storage unit is a memory having a shorter read/write time than the storage unit.

[5] The work robot according to any one of claims 1 to 4, wherein the variable storage unit stores, as the working state information, a work number assigned for each of steps of the intended work.

[6] The work robot according to any one of claims 1 to 5, wherein the variable storage unit stores, as the working state information, absolute

position information of the holding unit with respect to a reference position.

[7] The work robot according to any one of claims 1 to 6, further comprising an emergency end switch for forcibly bringing the work performed by the known work device to an end.

[8] The work robot according to any one of claims 1 to 7, wherein the known work device is a discharge device or an application device.

[9] The work robot according to claim 8, wherein the variable storage unit stores, as the working state information, the number of times of discharges or applications which have been performed so far.

CLAIMS

1. A work robot (1) comprising a holding unit (9) configured to hold a work device (10, 11), a relatively moving mechanism (2, 3, 6, 7, 8) configured to relatively move a workpiece (4) and the holding unit, an information processing unit, a storage unit, an auxiliary storage unit and a variable storage unit, the work robot (1) performing intended work by relatively moving the holding unit (9) and the workpiece (4) in accordance with a program, characterized in that

the program is a rewritable program prepared on the user side and is stored in the auxiliary storage unit, wherein,

when the execution of the intended work is in progress, the information processing unit executing the program is configured to successively store only the values of designated variables as working state information in the variable storage unit in real time, wherein the designated variables are parameters which are selected from a plurality of parameters related to the work performed by the work robot (1) and which are the least necessary ones for continuously resuming a preceding work of the work robot (1), and when the program is forced to end during the intended work and then the intended work is to be resumed, the information processing unit executing the program is configured to resume the work in accordance with the working state information stored in the variable storage unit.

2. The work robot (1) according to claim 1, wherein the workpiece (4) is comprised of a plurality of workpieces on which the same work is performed, the variables include a variable corresponding to the number of workpieces for which the work has been completed, the fixed values include values of intervals between work positions on the workpiece.

3. The work robot (1) according to claim 1 or 2, wherein the variable storage unit includes a power source independent of a power source for supplying electric power to the work robot (1).

4. The work robot (1) according to claim 1 or 2, wherein the variable storage unit is a rewritable nonvolatile memory.

5. The work robot (1) according to anyone of claims 1 to 4, wherein the variable storage unit is a memory having a shorter read/write time than the storage unit and the auxiliary storage unit.

6. The work robot (1) according to anyone of claims 1 to 5, wherein the variable storage unit is configured to store, as the working state information, a work number assigned for each of steps of the intended work.

7. The work robot (1) according to anyone of claims 1 to 6, wherein the variable storage unit is configured to store, as the working state information, absolute position information of the holding unit (9) with respect to a reference position.

8. The work robot (1) according to claim 7, wherein the information processing unit executing the program is further configured to:

judge whether a work to be performed is new or a continuation of a preceding interrupted work, and the work can be resumed after returning the work robot (1) to the reference position in the case where the work is the continuation of the preceding interrupted work.

9. The work robot (1) according to anyone of claims 1 to 8, further comprising an emergency end switch (16) configured to forcibly bring the work performed by the work device (10, 11) to an end.

10. The work robot (1) according to anyone of claims 1 to 9, wherein the work device (10, 11) is a discharge device or an application device.

11. The work robot (1) according to claim 10, wherein the variable storage unit is configured to store, as the working state information, the number of times of discharges or applications which have been performed so far.

12. The work robot (1) according to claim 10, wherein the work device (10, 11) further comprises a plunger, and the variable storage unit is configured to store, as the working state information, a state of movement of the plunger.