

CLAIMS

1. A work support system comprising:
 - a management server including server processing circuitry; and
 - an autonomous movable body including
 - movable body processing circuitry,
 - a movable body communicator electrically connected to the movable body processing circuitry and communicable with the management server, and
 - a man-machine interface electrically connected to the movable body processing circuitry, wherein:
 - the server processing circuitry is configured to
 - determine a work site that requires work,
 - transmit site information indicating the work site, to the movable body communicator,
 - acquire identification information by which a worker is identifiable, and
 - determine support information including content corresponding to an attribute of the worker acquired from the identification information, the attribute comprising at least one of a qualification of the worker, a skill level of the worker, or a physical body parameter of the worker; and
 - the movable body processing circuitry is configured to
 - receive the site information from the management server through the movable body communicator,
 - generate based on the site information a movement command for making the autonomous movable body autonomously move to the work site,
 - acquire the support information for the work to be performed by the

worker at the work site, and

output the support information to the worker through the man-machine interface when the autonomous movable body has arrived at the work site.

2. The work support system according to claim 1, wherein:

the movable body processing circuitry is configured to transmit additional information to the management server;

the server processing circuitry is configured to

determine the support information based on the additional information

and

transmit the support information to the movable body communicator;

and

the movable body processing circuitry is configured to receive the support information through the movable body communicator.

3. The work support system according to claim 2, wherein:

the autonomous movable body further includes a state sensor that detects state information indicating a state of the work site; and

the additional information includes the state information detected by the state sensor when the autonomous movable body has arrived at the work site.

4. The work support system according to claim 2 or 3, wherein:

the movable body processing circuitry is configured to receive worker input information input to the man-machine interface by the worker when the autonomous

movable body has arrived at the work site; and

the additional information includes the worker input information.

5. The work support system according to any one of claims 2 to 4, wherein:

the additional information includes the identification information.

6. The work support system according to any one of claims 1 to 5, wherein the autonomous movable body further includes a carry-in carrier on which a work article to be used for the work is mounted.

7. The work support system according to claim 6, wherein the movable body processing circuitry is configured to
receive information of the work article and
transmit to the management server, information of the work article which has been used for the work.

8. The work support system according to any one of claims 1 to 6, wherein the autonomous movable body further includes a carry-out carrier on which an after-work article generated by the work is mounted.

9. The work support system according to claim 8, wherein the movable body processing circuitry is configured to
receive information of the after-work article and

transmit the information of the after-work article to the management server.

10. The work support system according to any one of claims 1 to 9, wherein:
the autonomous movable body further includes a storage memory; and
the movable body processing circuitry is configured to
store in the storage memory, work log information indicating the work
which has been performed by the worker and
transmit the work log information to the management server through
the movable body communicator.
11. The work support system according to any one of claims 1 to 10, wherein
the server processing circuitry is configured to transmit to an information terminal a
work command for urging the worker to move to the work site.
12. A work support system comprising:
a management server including server processing circuitry; and
an autonomous movable body including
movable body processing circuitry,
a movable body communicator electrically connected to the movable
body processing circuitry and communicable with the management server, and
a man-machine interface electrically connected to the movable body
processing circuitry, wherein:
the server processing circuitry is configured to
determine a work site that requires work and

transmit site information indicating the work site, to the movable body communicator;

the movable body processing circuitry is configured to

receive the site information from the management server through the movable body communicator,

generate based on the site information a movement command for making the autonomous movable body autonomously move to the work site,

acquire support information for the work at the work site, and

output the support information to the worker through the man-machine interface when the autonomous movable body has arrived at the work site; and

the movable body processing circuitry is configured to generate a patrol command when the movement command is not being generated, the patrol command being a command for making the autonomous movable body patrol a predetermined region.

13. An autonomous movable body for work support,

the autonomous movable body comprising:

movable body processing circuitry;

a movable body communicator electrically connected to the movable body processing circuitry and communicable with a management server; and

a man-machine interface electrically connected to the movable body processing circuitry, wherein

the movable body processing circuitry is configured to

receive site information indicating a work site that requires work, from

the management server through the movable body communicator,

generate based on the site information a movement command for making the autonomous movable body autonomously move to the work site,

acquire identification information by which a worker is identifiable,

transmit the identification information to the management server,

wherein the management server determines support information including content corresponding to an attribute of the worker acquired from the identification information, the attribute comprising at least one of a qualification of the worker, a skill level of the worker, or a physical body parameter of the worker,

receive, from the management server, the support information including content corresponding to the attribute of the worker for supporting the work at the work site, and

output the support information to the worker through the man-machine interface when the autonomous movable body has arrived at the work site.

14. A work support method comprising:

receiving, from a management server, site information indicating a work site that requires work;

based on the site information indicating the work site, generating a movement command for making an autonomous movable body autonomously move to the work site;

acquiring identification information by which a worker is identifiable,

transmitting the identification information to the management server,

wherein the management server determines support information including content

corresponding to an attribute of the worker acquired from the identification information, the attribute comprising at least one of a qualification of the worker, a skill level of the worker, or a physical body parameter of the worker,

receiving, from the management server, the support information including content corresponding to the attribute of the worker for supporting the work at the work site; and

outputting the support information to the worker through a man-machine interface of the autonomous movable body when the autonomous movable body has arrived at the work site.

15. The work support method according to claim 14, wherein:

the worker is a specific worker;

the autonomous movable body is movable among sites in a predetermined region where workers including the specific worker exist; and

the method further comprises determining the work site by determining whether or not a site of the sites requires work.

16. An autonomous movable body for work support,

the autonomous movable body comprising:

movable body processing circuitry;

a movable body communicator electrically connected to the movable body processing circuitry and communicable with a management server; and

a man-machine interface electrically connected to the movable body processing circuitry, wherein:

the movable body processing circuitry is configured to

receive site information indicating a work site that requires work, from the management server through the movable body communicator,

generate based on the site information a movement command for making the autonomous movable body autonomously move to the work site,

acquire support information for the work at the work site, and

output the support information to the worker through the man-machine interface when the autonomous movable body has arrived at the work site; and

the movable body processing circuitry is configured to generate a patrol command when the movement command is not being generated, the patrol command being a command for making the autonomous movable body patrol a predetermined region.

17. A work support method comprising:

determining a work site that requires work;

based on site information indicating the work site, generating a movement command for making an autonomous movable body autonomously move to the work site;

acquiring support information for the work at the work site;

outputting the support information to a worker through a man-machine interface of the autonomous movable body when the autonomous movable body has arrived at the work site; and

generating a patrol command when the movement command is not being generated, the patrol command being a command for making the autonomous movable

body patrol a predetermined region.