Claims

[Claim 1]

A control method of a moving body that automatically moves, the control method comprising:

a step of moving the moving body along a reference path;

a step of causing a sensor provided on the moving body to detect an obstacle located on a side toward a first direction that is a traveling direction of the moving body when the moving body is moving along the reference path;

a step of setting an avoidance path that extends toward the first direction while avoiding the obstacle in a case where the obstacle is present on the side toward the first direction;

a step of moving the moving body along the avoidance path;

a step of determining whether or not an updated avoidance path that is a different avoidance path satisfying a predetermined condition is generatable when the moving body is moving along the avoidance path;

a step of reversing the moving body in a second direction opposite to the first direction in a case where the updated avoidance path satisfying the predetermined condition is not generatable; and

a step of updating the reference path such that the moving body passes through a position that does not interfere with the obstacle after the moving body is reversed in the second direction, and moving the moving body along the updated reference path.

[Claim 2]

The control method according to claim 1,

wherein, in the step of reversing the moving body in the second direction, the moving body is reversed in the second direction in a case where the updated avoidance path capable of avoiding the obstacle is not generatable.

[Claim 3]

The control method according to claim 1 or 2,

wherein, in the step of reversing the moving body in the second direction, the moving body is reversed in the second direction in a case where the updated avoidance path that merges into the reference path on a first direction side with respect to the obstacle while avoiding the obstacle is not generatable.

[Claim 4]

The control method according to claim 1 or 2,

wherein, in the step of reversing the moving body in the second direction, a retract path that extends toward the second direction is set based on a detection result of the sensor, and the moving body is reversed in the second direction along the retract path.

[Claim 5]

The control method according to claim 1 or 2,

wherein, in the step of reversing the moving body in the second direction, a retract path that extends toward the second direction is set based on the avoidance path, and the moving body is reversed in the second direction along the retract path.

[Claim 6]

The control method according to claim 1 or 2, further comprising:

a step of stopping the moving body in a case where the obstacle is present on the side toward the first direction;

a step of setting a reverse path that returns to a reverse position located on a side toward the second direction based on the reference path; and

a step of moving the stopped moving body to the reverse position along the reverse path,

wherein, in the step of moving the moving body along the avoidance path, the moving body that has moved to the reverse position is moved along the avoidance path.

[Claim 7]

A computer-readable recording medium having stored thereon a program for causing a computer to execute a control method of a moving body that automatically moves, the program causing the computer to execute:

a step of moving the moving body along a reference path;

a step of causing a sensor provided on the moving body to detect an obstacle located on a side toward a first direction that is a traveling direction of the moving body when the moving body is moving along the reference path;

a step of setting an avoidance path that extends toward the first direction while avoiding the obstacle in a case where the obstacle is present on the side toward the first direction;

a step of moving the moving body along the avoidance path;

a step of determining whether or not an updated avoidance path that is a different avoidance path satisfying a predetermined condition is generatable when the moving body is moving along the avoidance path;

a step of reversing the moving body in a second direction opposite to the first direction in a case where the updated avoidance path satisfying the predetermined condition is not generatable; and

a step of updating the reference path such that the moving body passes through a position that does not interfere with the obstacle after the moving body is reversed in the second direction, and moving the moving body along the updated reference path.

[Claim 8]

A moving body that automatically moves, comprising:

a movement control unit that moves the moving body along a reference path;

a detection control unit that causes a sensor provided on the moving body to detect an obstacle located on a side toward a first direction that is a traveling direction of the moving body when the moving body is moving along the reference path; and

an avoidance path acquisition unit that acquires an avoidance path that extends toward the first direction while avoiding the obstacle in a case where the obstacle is present on the side toward the first direction,

wherein the movement control unit

moves the moving body along the avoidance path,

reverses the moving body in a second direction opposite to the first direction in a case where an updated avoidance path that is a different avoidance path satisfying a predetermined condition is not generatable when the moving body is moving along the avoidance path, and

updates the reference path such that the moving body passes through a position that does not interfere with the obstacle after the moving body is reversed in the second direction, and moves the moving body along the updated reference path.