CLAIMS

1. A transport system comprising a host controller, a plurality of transport vehicles that travel along a track, and a second controller that controls each of the transport vehicles,

(a) wherein the host controller includes a transport instruction generator,

(i) wherein the transport instruction generator is configured to generate a plurality of host transport instructions; and

(ii) wherein each host transport instruction identifies a designated article, a designated pickup port, and a designated unloading port; and

(b) wherein the second controller is configured to:

(i) store route information;

(ii) receive the plurality of host transport instructions transmitted from the host controller; and

(iii) for each host transport instruction:

(1) assign the host transport instruction to a designated transport vehicle of the plurality of transport vehicles;

(2) generate a traveling route along the track for the designated transport vehicle from the designated pickup port to the designated unloading port of the host transport instruction;

(3) receive closure information for parts of the track along the traveling route between the designated pickup port and the designated unloading port of the host transport instruction;

(4) determine whether any part of the track along the traveling route for the host transport instruction is not secured for transport; and

(5) if the traveling route for the host transport instruction is not secured for transport:

(a) generate and assign to the designated transport vehicle a first transport instruction different from the host transport instruction, the first transport instruction including a specified point on a downstream side of the designated pickup port in a traveling direction of the designated transport vehicle for which a first traveling route different from the traveling route can be secured; and

(b) upon a determination that the designated transport vehicle has approached or reached the specified point, generate and assign a second transport instruction different from the host transport instruction, the second transport

instruction including a second traveling route from the specified point to the designated unloading port that is determined to be secured when the designated transport vehicle approaches or reaches the specified point.

2. The transport system according to claim 1, wherein

the first transport instruction is an instruction to cause the designated transport vehicle to travel to the specified point and hold but not unload the designated article.

3. The transport system according to claim 1 or 2, wherein

the specified point is set immediately before a branching part or a merging part on the track.

4. The transport system according to claim 3, wherein

in the case where the specified point is set immediately before the branching part,

the branching part is a branching part closest to the designated pickup port.

5. The transport system according to any one of claims 1 to 4, wherein

the second controller is a transport controller that controls the plurality of the transport vehicles, or an in-vehicle controller fitted in each of the transport vehicles.

6. A transport method, the method comprising the steps of:

(a) providing a host controller, a plurality of transport vehicles that travel along a track, and a second controller that controls each of the transport vehicles, wherein the host controller includes a transport instruction generator;

(b) with the transport instruction generator, generating a plurality of host transport instructions, wherein each host transport instruction identifies a designated article, a designated pickup port, and a designated unloading port; and

(c) with the second controller:

(i) storing route information;

(ii) receiving the plurality of host transport instructions transmitted from the host controller; and

(iii) for each host transport instruction:

(1) assigning the host transport instruction to a designated transport vehicle of the plurality of transport vehicles;

(2) generating a traveling route along the track for the designated transport vehicle from the designated pickup port to the designated unloading port of the host transport instruction;

(3) receiving closure information for parts of the track along the traveling route between the designated pickup port and the designated unloading port of the host transport instruction;

(4) determining whether any part of the track along the traveling route for the host transport instruction is not secured for transport; and

(5) if the traveling route for the host transport instruction is not secured for transport:

(a) generating and assigning to the designated transport vehicle a first transport instruction different from the host transport instruction, the first transport instruction including a specified point on a downstream side of the designated pickup port in a traveling direction of the designated transport vehicle for which a first traveling route different from the traveling route can be secured; and

(b) upon a determination that the designated transport vehicle has approached or reached the specified point, generating and assigning a second transport instruction different from the host transport instruction, the second transport instruction including a second traveling route from the specified point to the designated unloading port that is determined to be secured when the designated transport vehicle approaches or reaches the specified point.