

ABSTRACT

The problem to be overcome by the present disclosure is to contribute to relocalizing an autonomous mobile robot more easily. An autonomous mobile robot (1) including an onboard camera (11) and a relocalizer (121) moves autonomously while recognizing its own position and orientation within a predetermined area. A positioning system (20) determines the current location of the autonomous mobile robot (1). A marker, to which a code is attached, is provided at a predetermined location within the predetermined area. The code is associated with relocalization position information and relocalization orientation information which are used to allow the autonomous mobile robot (1) to recover from a mislocalized state where the autonomous mobile robot (1) erroneously recognizes at least its own position. When a navigation system (30), including a storage unit (22) that stores marker location information indicating the predetermined location, decides that the autonomous mobile robot (1) should be in the mislocalized state, the navigation system (30) navigates the autonomous mobile robot (1) in accordance with the marker location information and based on a result of positioning provided by the positioning system (20). The relocalizer (121) acquires, based on a captured image generated by the onboard camera (11) after the autonomous mobile robot (1) has been navigated, the relocalization position information and the relocalization orientation information associated with the code.