

ABSTRACT

To provide a picking device that can accurately identify a position of a picking target object, at least one or more pieces of two-dimensional photographed image data is acquired by photographing the entire plurality of picking target objects, three-dimensional point group information on the entire plurality of picking target objects is acquired, calibration is performed between the two-dimensional photographed image data and the three-dimensional point group information, top surface candidate regions of the plurality of picking target objects from the three-dimensional point group information are extracted, a region corresponding to the top surface candidate region in the two-dimensional photographed image data is set as a region of interest, two-dimensional photographed image data in which luminance information in the region of interest satisfies a predetermined condition is selected or synthesized to obtain AI determination image data, center coordinate information of each picking target object in the AI determination image data is acquired by inputting the AI determination image data to a learned model learned in advance, and picking by the picking robot is controlled based on the center coordinate information and height information.