

Title (en)
AUTONOMOUS ROBOT AND GRIPPING SYSTEM

Title (de)
AUTONOMER ROBOTER UND GREIFSYSTEM

Title (fr)
ROBOT AUTONOME ET SYSTÈME DE PRÉHENSION

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EP 4232394 A1 20230830 (EN)

Application
EP 21805847 A 20211022

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Abstract (en)
[origin: WO2022084522A1] The present invention relates to an autonomous robot and a gripping system for operating and performing tasks within a vertical farm system, such as a plurality of rows having plants arranged in vertically stacked layers. The robot is arranged for retrieving a plant tray from the vertical farm system such that manual labor is avoided. The robot comprises a motorized vehicle having a power system for driving the vehicle and a steering system for determining a direction of the motorized vehicle; a gripping system for gripping a plant tray within the vertical farm system; a height adjustment mechanism, such as a scissor lift, arranged in-between the vehicle and the gripping system for arranging the gripping system at a predetermined height, and a control unit arranged for controlling the power system, the height adjustment mechanism and the gripping system. The gripping system comprises at least two gripping arms, arranged for gripping opposites sides of the plant tray and arms being moveable arranged on said gripping system in a horizontal plane and further comprises a locking system for establishing a closed electrical circuit when the locking arms has correctly engaged with the plant tray.

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