GOODS CONTAINER TRANSFER ROBOT AND METHOD USING SAME

ABSTRACT

A goods container transfer robot includes a robot carrier and a gantry arranged on the robot carrier, and further includes a picking mechanism. The picking mechanism includes a body slidably connected to the gantry and a pair of clamping forks slidably connected to the body, and each clamping fork includes an intermediate assembly slidably connected to the body and a distal arm slidably connected to the intermediate assembly and configured to pull a goods container. The intermediate assembly includes a plurality of detachable independent arms, and the plurality of independent arms are configured to slide relative to each other. The body includes a driving mechanism configured to drive each clamping fork, and each independent arm includes a linkage mechanism linked with the driving mechanism.~~A goods box carrying robot and a method for using same. The robot comprises: a robot carrier (10) and a portal frame (20) disposed on the robot carrier (10). The robot further comprises a goods pickup mechanism (40); the goods pickup mechanism (40) comprises: a body (40c) slidably connected to the portal frame (20), and a pair of holding forks (40a, 40b) slidably connected to the body (40c). Each of the holding forks (40a, 40b) comprises an intermediate assembly slidably connected to the body (40c), and a tail arm (420) slidably connected to the intermediate assembly and used for pulling a goods box. The intermediate assembly comprises multiple detachable independent arms (410, 430, 440), and the multiple independent arms (410, 430, 440) are relatively slidable. The body (40c) is provided with a driving mechanism used for driving each of the holding forks (40a, 40b). Each of the independent arms (410, 430, 440) is provided with a linkage mechanism linked with the driving mechanism. According to the goods box carrying robot, the extension and retraction length of the holding forks can be adjusted, thus improving the adaptability of the goods box carrying robot.~~

Fig. 3